Newspaper Articles for Storm Reports Dated

August/September 1990

January/February 1993

and Other FCD Articles Dated

February/May 1994

**Library Call No.** 007.170

| 0 | Year | Title of Newspaper Article | x | Key Words |
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**0** - First Column is for the assigned newspaper article numbered in red

**Year** - Articles are all sorted by year

**Title of Newspaper Article** – Name of article

**X** – Separator between columns

**Key Words** – Key words in article

| 0 | Year | Title of Newspaper Article | X | Key Words |
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| 133 | July 16, 1964 | Sunnyslope Given Apology by City | X | Fred Glendening, City Public Works Director, Apologized, Sunnyslope Residents, Complaints on Drainage, Area Property, Hurt, Major Storm, Last August, Improve Drainage, Flood Control District, Outlet, Additional Canal, Arizona Canal, George F. Ginter, Sunnyslope Chamber of Commerce, People Building in Washes, Improving Drainage, 12th Street, Northern Avenue, Outlet Capacity, 19th Avenue, Then City Engineer Left City, Turned Over to Assistant, Assistant Resigned, Without Passing Correspondence Over |
| 135 | October 23, 1964 | Mayor Urges Flood Control Bond Issue | X | Mayor Graham, Sunnyslope Area Residents, Support, Maricopa County Flood Control Bond Election, Flooding Problems, County Supervisors, Sunnyslope Area Chamber of Commerce, Minor Things, Relieve, Damage, Rain Caused Floods, Trash, Debris, Washes, Swept Down, Rain Channels, Blocked Flood Control Gates, Canal, Seventh Street |
| 136 | October 29, 1964 | We Want Action | X | Sunnyslope, Definite Plan, Flood Control, George Gitner, Director Sunnyslope Chamber of Commerce |
| 134 | January 9, 1965 | Sunnyslope Work Pushed - Drainage System Sought | X | Fred Glendening, City Public Works Director, Immediate Start, Flood-control Project, Sunnyslope, Clearing Channel, Constructing, Culverts, Small Bridges, 10th Street Wash, Cholla Street, Cave Creek Road, Arizona Canal, Tenth Street, Phoenix City Council, City Manager Robert Coop, Mayor Milton Graham, September Storms, Built Up, Flooding Problem, Increased, City Engineer Clarence Lintz, Rainfall, Runs Off, Lower Areas, Major Natural Drainage Facilities, Wash Crosses Streets, Second Phase, Determine Right of Way, Drainage Rights, Clear Channel, Unrestricted Flow, Floodwaters |
| 151 | August 15, 1990 | More Rain Likely to Drench Valley - Flooded Street Create Commuter Nightmares (& Pictures) | X | Heavy Rains, Valley, Flooding Houses, Closing Roads, Weather Forecast, Rain, Unstable Moist Air Mass, Low Pressure, Moisture, National Weather Service Meteorologist Bob Wilt, Claudia Scnabl, Spokeswoman, American Red Cross, Julian Thompson, North Phoenix, Skunk Creek, Pinnacle Peak Road, 35th Avenue |
| 152 | August 15, 1990 | Monsoon Called Wettest Valley Has Seen in 6 Years | X | Wettest Monsoon Season, Rainwater, Phoenix Skyline, Valley, Craig Ellis, Meteorologist, National Weather Service, Arizona Gulfs of Mexico and California, Sky Harbor International Airport, Phoenix, East Valley, Bill Bestel, Meteorologist, Downpours, West Valley, Goodyear, 91 Degrees Aug. 14, 1935, Wettest Monsoon in 1984, 9 Inches of Rain |
| 153 | August 15, 1990 | School Chief's Son Almost Drowns in Heavy Runoff (& Pictures) | X | Nearly Drowned, 12-inch Metal Drain, Storm Runoff Waters, Dennis Dowling, Saved, Billy White, Metal Culvert, Greenbelt, 33rd and Beverly Avenues, Sandra Dowling, Flooded Grand Avenue, Glendale Avenue, Storm, Closed |
| 147 | August 16, 1990 | Swift-water Rescue (& Picture) | X | Tim Gallagher, Phoenix Fire Department, William Babela, 35th Avenue and Pinnacle Peak Road, Floodwaters |
| 148 | September 4, 1990 | Tornado Brushes Phoenix - Lightning Kills 1, Storm Floods Streets(& Pictures) | X | Tornado, Phoenix, Killed, Lightening, Apache Junction, Strong Thunderstorms, Valley, 3.58 Inches of Rain, Street Flooding, Cottonwood, Prescott, Winds, 80 mph, Union Hill s Drive, Seventh Street and Seventh Avenue, National Weather Service, John Dyer, Central Avenue, Big Brown Cloud, David Bjorem, Funnel Clouds, Tornado Warning, Gold Canyon Golf Course, Apache Junction Fire Department, Two Storm Cells, Powerful Winds, Heavy Rain, Northwester, Eastern Maricopa County, Agua Fria River, Henry Wiese, Rescued, Department of Public Safety Helicopter, Tom Knapp, Spokesman, Rural Metro Fire Department, High Schools Closed, Bruce Florence, Spokesman, Glendale Union High School District, Arizona Public Service, Power, Lost Service, Northwest Phoenix, Loma Vista Substation, Flooded, Rebecca Watral, APS Spokeswoman, Salt River Project, Lost Power, Power Poles Knocked Down, Sky Harbor International Airport, 82nd Avenue, Thunderbird Road, Chandler, Gilbert, No Rain, Lost Dutchman State Park, Superstition Mountains, Park Ranger Diana Bishop, 68 mph gust, Phoenix-Goodyear Municipal Airport, East Mesa, Bob Jordon, 64th Street and Brown Road, In Buckets, 66th Street, Recker Road, Cactus and Hayden Roads, North Scottsdale, Shea Boulevard, Miller Road, 59th Avenue, Northern and Glendale Avenues, River, Thom Leonard, Sandbag, Union Hills and Seventh Street, Flooding Three Feet Deep, Underpass, Black Canyon Freeway and Peoria Avenue to Union Hills Driver, Officer Roger Austin, Tempe Police Spokesman, Mill Avenue, Closed, Salt River Bottom, Mill Avenue Bridge, Rockslides, Arizona 87, U.S. 60, Miami, Verde Valley, Uprooted Trees, Tom Driver, Bartender, The Palace, Whisky Row, Grand Avenue near 55th Avenue, Tatum Boulevard |
| 146 | March 3, 1991 | Wittmann Man Killed in Flooded Hassayampa (& Picture) | X | Wittmann man, Killed, Washed Away, Hassayampa River, Unbridged River Crossing, Maricopa County Sheriff's Office, Antonio Gonzalez, Grand Avenue, Heavy Rains, |

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| 149 | March 28, 1991 | Wintery Blast Hits State with Rain, Snow - Reprieve Called Likely to Linger Into Next Week (& Pictures) | X | Arizona, Dry Desert, Weather Forecasters, Wintry Storms, Valley, David Bjorem, Barbara Bush, Cancel, Grand Canyon, National Park Service, Phoenix Fire Department Capt. Steven Young, Missing, Sunrise Ski Resort, Show Low, Winds, 35 mph, Mogollon Rim, John Paulsen, Arizona Division of Emergency Services, Flagstaff, 17 Inches of Snow, Winslow, Prescott, Department of Public Safety, Dusting of Snow, Scottsdale, East Mesa, Sky harbor International Airport, Meteorologist John Tenharkel, Snowflakes, Fountain Hills, Wickenburg, Estrellas, McDowells, Apache Junction, Barricaded, Southern Avenue and Broadway Road, Flooding, Unbridged Crossings, Salt River, Closed, Candi Nilles, Dispatcher, Apache Junction Police Department, Fairfield Snow Bowl, Record Rain Fall, March 27 is 0.64 Inches, Recorded in 1924, March Rainfall, 1941, 4.82 Inches for Month |
| 150 | March 28, 1991 | Rivers Running as Wet Storms Soak Arizona | X | Major Storm, Gulf of Alaska, Rain, Snow, Central Arizona, Dry Salt River, Salt and Verde Rivers, Watersheds, Melt, Salt River Project Reservoirs, Runoff, 1989, 1990, Spokesman Jeff Eldot, Phoenix Area, SRP Reservoirs, Salt River Watershed, Verde River, Snow Level, Ground, Saturated, Lakes, Granite Reef Diversion Dam, Northeast of Mesa, Lake Pleasant, Agua Fria River, 1983 |
| 52 | January 3, 1993 | Water Rips Scaffolding From Bridge (& Picture) | X | Salt River, Ripped, Scaffolding, Mill Avenue Bridge, Dry Riverbed, Riverbank, Nachie Marquez, Collapsing, Salt River Project, Releasing Water, Heavy Rains, Concrete Footing, Flow Peaked, Teri Moore, SRP Spokeswoman, Heavy Flows, City Engineers, Watch, Old Bridge, No Signs of Damage, Riverbed, Rio Salado Project, Mary Harry Mitchell, Damage, Riverside Community, Rio Salado Parkway, Wood, Steel, Other Materials, Problems, Debris, Hung Up, Edward Kraemer and Sons of Phoenix, Financial Hit, Arizona Department of Transportation |
| 87 | January 8, 1993 | Rain Floods NW Valley Roadways (& Pictures) | X | 1993, Not, Drought Year, Arizona, Steady Rains, Drenched, Clouds Broke, More Rain Forecast, National Weather Service, Flash Flood Warning, Central Arizona, Stream Flows, NWS Meteorologist David Carpenter, Sun City Weather Watcher, Dick Jarsensky, Salt River Project Officials, Granite Reef Dam, Northeast Phoenix, Dam, Teri Morris, SRP Spokeswoman, East Valley, West Valley, Carefree Highway, 99th Avenue to Interstate 17, Lake Pleasant, Rising Water Level, Rain, Norm Zadnoff, Sun City West Posse Commander, Peoria, Fire Station, Sand, Sand Bags, Glendale, Deer Valley Road, 75th, 83rd Avenues, 54th Avenue, Union Hills Drive, 57th Avenue, 67th Avenue, Bell Road, Skunk Creek, 83rd Avenue and Union Hills Drive, 83rd Avenue From Bell Road Heavy Rains, Closure 101 Loop and 83rd Avenue, Don Rhoten, Paradise Resort |
| 43 | January 9, 1993 | Valley River Crossings (Map) | X | Holly Acres, Mill Ave. Bridge, Salt River Reservation, Numerous Locations, River Crossings |
| 47 | January 9, 1993 | Earlier Floods Create Grief for Motorists, Homeowners | X | Since 1978, Three Massive Floods, Valley, Damage, Homes, Businesses, Washing Out Bridges, Homeless, Runoff, Most of State, New Mexico, Granddaddy of All Floods, Most Server, Maricopa County Record, 1891, Salt River, Farmers, Flood Control District, Damming, Salt River, Storm Runoff, Susan Fitzgerald, Spokeswoman, 1978, Floodwaters, Washed Out Interstate 17 Bridge, Agua Fria River, Killed Six People, Flooding, Central Avenue Bridge, Heavy Damage, Losses, Sand and Gravel Operations, Banks of River, Arizona Department of Transportation, 1980, Once Every 100 Years, Three Dead, Salt River Project Officials, Release Water, Protect Stewart Mountain Dam, Collapsing, Army Corps of Engineers, Concrete, Unbonding |
| 69 | January 9, 1993 | Water Pours Out of Roosevelt Dam (Pictures) | X | Roosevelt Dam, Salt River, Surging Water, Ripped Scaffolding, Half-completed Mill Avenue Bridge, Concrete Footing |
| 70 | January 9, 1993 | Going With the Flow - Flood Proves Channelization Works (& Picture) | X | Jim Jones, Water, Dry Salt River Bed, Channelized Rio Salado Project, Trial Run, Turbulent Water, Released, Salt River Project Dams, Heavy Rains, Second Mill Avenue Bridge, Scaffolding, Toppled, Channelization Worked, Dave Hanna, Chairman, Rio Salado Advisory Committee, Freed Hundreds of Acres from Potential Flooding, Planned Lakeside, Resorts, Recreation Areas, Tempe, Maricopa County Flood Control District, Arizona Department of Transportation, Ushered Through, Banks, Less Cleanup, November 1987, Arizona Voters, Turned Down, Proposal, Valley, 1990, Tempe to do it Alone, It's Voters Approved Project, No Water Rose, Lowest Jog, Rio Salado Area, Salt River Flooding |
| 71 | January 9, 1993 | Temporary Scaffolding No Match for River Flow (& Picture) | X | Second Mill Avenue Bridge, Salt River Project, Release Water, Dry River, Heavy Rains, Public Works Director Jim Jones, Scaffolding, Tumbling, Cement Floodwaters, Salt and Verde Rivers, Granite Reef Dam, Northeast Phoenix, Poured Over, Lower Salt River, SRP Spokeswoman Teri Morris, Collapsed, Damage, Heavy Storms, Plywood Forms, Steel Supports, Concrete, State Department of Transportation, Builder Kraemer and Sons, Financial Hit, Original Mill Avenue Bridge, Not Damaged, Road, Washed Away, Riverside Community, Contractor's Insurance Company |

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| 72 | January 9, 1993 | Garbage Slides Into Salt River - Warning on Tri-City Landfill Were Sounded Last Year (&Pictures & Map) | X | Environmentalists, Raging Floodwaters, Breached, Tri-City Landfill, North of Mesa, Garbage Flowing, Dry Salt River, Mary Jensen, Co-chairwoman, Legacy of the Southwest, East Valley Environmental Group, Garbage, Landfill, River, Buckeye, Sen. John McCain, Damage, High Waters, Old Landfills, 1950's, Salt River Pima-Maricopa Indian Community, Scottsdale, Mesa, Tempe, Other Riverbed Landscapes Closed, Federal Officials, Investigating, Runoff, Debris, State Department of Environmental Quality, No Jurisdiction, Indian-operated Landfills, U.S. Environmental Protection Agency, McDowell Road, Beeline Highway, Floodplain, Unlined, Seeping, Underground Water Supply, Tribal Officials, Landfill Eroded, Trash, Illegal Dumping Upstream, Frank Mertely, Manager of Indian Community, Truckloads, Large Boulders, Hold Off Rising River, Responsible, Cleanup, South of Phoenix, Meets Federal Specifications, Ray Garrison, Scottsdale, Assistant City Manager, County Landfill, Army Corps of Engineers, City Manager Charles Luster, EPA Jurisdiction, DEQ Director Ed Fox, Legal Action, Steve Brittle, President, Don't Waste Arizona |
| 78 | January 9, 1993 | The Flood of 1993 - Floods Often Tested Valley 's Preparedness (& Picture) | X | Floods, 1978, '79, '80 Floods, Valley, Rain, Salt River Project's Reservoirs, Salt and Verde Rivers, Filled by Runoff, SRP, Water Releases, Bridges, Mill Avenue Bridge, Salt River, East Valley, Apache Junction, Phoenix, Sky Harbor International Airport, Flooded, Country Club Drive, Mesa, State Highway Officials, Feb. 13, 1980, Measurable Rain, Nine Straight Days, SRP' Reservoirs, 90 Percent Full, Big Storm, Stewart Mountain Dam, Danger, Giving Way, Water, Riverbed, Orme Dam, Inundated Fort McDowell Mohave-Apache Indian Community, Environmentalists, Building, Bridges, Flood Control, Water Storage, Overgrazing Cattle, Tonto National Forest Watershed, Contributing to Flooding, Problem, Development, Flood Plains, Federal Plan, 1984, Increase Storage Capacity, Watersheds, New Dams, Verde River, Bald Eagle Habitat, Construction, Increasing Height, Roosevelt Dam, Floods of Late '70s and 1980, William Lo Piano, Former Mayor of Tempe, Desert, Valley of the Sun, First Big Recorded Flood, 1891, Killed 60, Damage, Susan Fitzgerald, Public Information Officer, Maricopa County Flood Control District, 1905, 1919, Tempe, Mill Avenue Bridge, 1921, State Capitol, Prompted, Building Cave Creek Dam, Finished 1923, 1943, 1950's, Luke Air Force Base, West Valley, 1965, '72, March 1982, Closure 16 Riverbed Crossings, Blue Paint Bridge |
| 79 | January 9, 1993 | A History of Floods | X | Major Dates, Local Flood History, 1891, Salt River, Roosevelt Dam Constructed,1921, Flooding Damage, State Capitol, Cave Creek Dam, 1978, Valley, Bridges, Salt River, Three People Killed, Six Swept Away, Interstate 17, Agua Fria River at Black Canyon City, 1979, Storms, 1980, Four Deaths Statewide, Nine Days Straight Rain, Record, Salt River Project, Stewart Mountain Dam, Northeast of Mesa, Orme Dam, Bridges Built, 1993, Water Releases |
| 84 | January 9, 1993 | Landfill's Contents May Flow Down Salt - Rushing Water Strips Layer of Embankment (& Picture) | X | Floodwaters, Breached, Tri-City Landfill, Major Portion Indian-operated Dump, Wash Down, Salt River, Craig Zentgraf, Engineer, Arizona Department of Environmental Quality, Rushing Water Eroded, Embankment, Landfill, Construction Debris, Soil and Rock, Floodwaters, Commercial, Residential Garbage, Mesa, Scottsdale, Tempe, Release, Rain, Salt River Pima-Maricopa Indian Community, Blamed, Salt River, Major Storms, Salt River Project, Granite Reef Dam, Dry Riverbed, Flows, Ed Fox, Director, Environmental Department, Gov. Fife Symington, State's Legal Options, Department Spokesman John Godec, Indian Community, U. S. Army Corps of Engineers, Draft Plan, Shore Up Landfill, U.S. Environmental Protection Agency, Janet Johnson, Spokeswoman, President Ivan Makil |
| 88 | January 9, 1993 | Unfinished Spans Prove No Match for Fury of Salt - 6 Other Bridges Closed by Torrent (& Pictures) | X | Rushing Waters, Closed, Six Bridges, All Unbridged Washes, Salt River, Sgt. Jay Ellison, Maricopa County Sheriff's Department, Bridges at 35th, 51st, 67th, 91st Avenues, McKellips, Gilbert Roads, Debris-laden Water, Mill Avenue Bridge, Concrete Arches, Held Up, Knocked Out, Temporary Plywood Spans, Steel Beams, Old Two Lane Mill Avenue Bridge, Not Damaged, Bridget O'Rourke, Tempe Resident, Roger Knauss, Rudy Hernandez, Down River, Raging Waters, 35th Avenue Bridge, Phoenix Police Sgt. William Johnston, People Stranded, Island, Rescued, 1980 Floods, Tom LaMarche, Hydrologist, Maricopa County Flood Control District, Swamped American Truck Salvage Yard, Debris, 50-gallon Drum, Floated Downstream, Propane Tank, Carried Away, Central Avenue Bridge, Phoenix, Construction, New Mill Avenue Bridge, Tempe Officials, Contractor's Insurance, Jim Jones, Director, Public Works |
| 89 | January 9, 1993 | Woman Clings to Tree in Creek | X | Churning Water, Dry Beaver Creek, Amy Janes, Tree, Creek Bed, Seven Hours, Northern Arizona University Student, Earl Janes, Camp Verde, Sedona, Wave Flipped Canoe, Serious Flooding, Downstream, White-water Specialists, Prescott Fire Department |

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| 91 | January 9, 1993 | Valley Flood Plains (Map & Picture) | X | Flooding, Bridges, Roads, Salt River, Evacuated, 91st Avenue, Phoenix Waste-water Treatment Plant, New Mill Avenue Bridge, Tri-City Landfill |
| 92 | January 9, 1993 | Evacuation is the 5th in 15 Years for One District | X | Pete Oliver, Sandbags, Gila and Salt Rivers, 115th Avenue, Holly Acres, Floods, 1978, Rivers Overflowed, 1980, 1983, 91st Avenue and Lower Buckeye, Judy Hill, Renee Farmer, Venita and Cleo West, Southern Avenue, Kathy Trimble, Waist-deep Water, Gophers, Snakes, Sand, Mud, Roof, Piled Up Earth, Shore Up Line, Rising Water, Dike, 211th Avenue, Heartland Dairy, Mike Rainwater, Beloat Road, Gene Shelton, Mesa, Evacuated, Hawaiian Family Mobil Home Park, Collenne Millien, Danny Millien, Country Club Drive, McKellips Road, Red Cross, Joseph Duprey, State Flood-control Efforts, More Flood Control |
| 93 | January 9, 1993 | How Water Flow is Measured | X | Salt River, Phoenix, Horseshoe and Bartlett Lakes, Water Needs, Valley Cities |
| 111 | January 9, 1993 | River Rages; New Storm Due - Salt Threatens to Swamp Homes in Low-lying Areas | X | Powerful Water Releases, Bridge, Salt River, Landfill, Governor, Declare, Statewide Emergency, Storms, Torrent of Water, Evacuated, Water Flow, Levels, Floods of 1980, Heavy Rain, Salt River Project, Release Runoff, Dirty Churning Water, Damage, Destructive, Gov. Fife Symington, Flood Emergency, U.S. Sen. John McCain, Swollen River, New Mill Avenue Bridge, Tempe, Unfinished Span, Collapsed, Debris, Tri-City Landfill, Salt River Pima-Maricopa Indian Community, Toxic Trash, River Flow, SRP, Disastrous Floods of 1978, Several Bridges, Gilbert Road, 35th Avenue, State Route 85 Bridges, Closed, Central Avenue, 51st Avenue, Red Cross, Flooded Out, Homes, Mesa, Hawaiian Family Mobil Home Park, Holly Acres Community, Salt River Reservation, Barriers, Louis Michelena, Dike, Trailer, Barn, Animals in Danger, Floating Down Raging River, Peter Cervelli, Arizona State University Student, Heather Bavol Acting Director, Congregational Child Care, Phoenix City Manager Frank Fairbanks, Pat Manion, Flood Preparations, Del Rio Landfill, 7th and 16th Streets, Rocks, Other Rubble, Dumped, Eva Smith, 51st Avenue Bridge, Weather Problems, Tucson, Pima County, National Guard, Federal Funds, Sgt. Ron Benson, Spokesman, Pima County Sheriff's Office, Ina Road Bridge, Santa Cruz River, Tearing Away Supports, Pilings, Dams, Salt and Verde Rivers |
| 112 | January 9, 1993 | Once Again, River Threatens to Wash Away Family's Home (& Pictures) | X | Al Bevins, Salt River, Holly Acres, West of Phoenix, Evacuate, Homes, Threatened to Overflow, Banks, Spill, Farmland, Homesites, River's Roar, Rock-encrusted Earthen Dike, Raging Waters, 121st Avenue, Rosella Davis, Flood of 1980, Wildlife, Maricopa County Sheriff's Office, Red Cross, Horses and Cows to Safety, Pat Melligan, Floodwaters, Danger |
| 113 | January 9, 1993 | Valley Streets Act as Storm Drain | X | Arizona, Valley of the Sun, Drain, Watershed, New Mexico, Flooding, Salt and Agua Fria Rivers, Riverbanks Overflow, Runoff, Higher Elevations, Water, Rains Heavily, Washes, Creeks, Channels, Paul Kienow, County Floodplain Management Engineer, Storm Drains and Canals, 48th Street, Agua Fria |
| 120 | January 9, 1993 | Arizona Inundation Old Story - Even Storage Dams Often Inadequate | X | Roosevelt Dam, Salt and Verde River Dams, Salt River Valley, Phoenix Area, University of Arizona, Floods, Past 115 Years, Summer Monsoons, Winter Storms, Pacific, Desert Soil, Absorb Water, Shallow Streambeds, February 1892, Worst Flood Settlement Began in 1867, Ominous Roar, From the Salt, Downtown Phoenix, Dissolving, Adobe Dwellings, Busy Harbor, Roosevelt Dam, 1911, Floods, Collapsed, Earthen Dams, Arizona Watersheds, Feb. 22, 1890, Walnut Grove Dam Collapsed, Earthen Structure, Breach, 900-acre Lake, Narrow Canyon, Hassayampa River, North of Wickenburg, 60-70 People Drowned, Mining Camp Named Seymore, Disappeared, 5 Homes, Business Collapsed, Tucson, 5.3 Inches Rain in 70 Minutes, July 11, 1878, Chirichua Mountains, 1985 University of Arizona Study, Leading Cause of Weather-related Deaths, Flash Floods, Labor Day Weekend, 1970, 28 People Died, Heavy Rains, Payson-Mogollon Rim, 11.4 Inches of Rain, Salt and Verde Rivers, Department of Public Safety Officer, Killed, Sycamore Creek, Arizona 87, Bridge Washed Away, March 1980, Destroying, River Crossings, Southern Pacific Railroad, Tempe, Southern pacific Co., Amtrak, State Department of Transportation, Mesa, Tempe, Phoenix, Oct. 1, 1983, Devastating Floods, Eastern Arizona Killing 15 People, Damage, Hardest-hit Towns, Clifton, Tucson, Willcox, Hooker Dam Failed, Wall of Water 8 Miles Wide |

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| 121 | January 9, 1993 | Floods Hit State, More Rain on Way - Half-built Mill Avenue Bridge Damaged, Other Salt River Crossings Closed - Waste Flows Into waters From Sewage, Landfill (& Pictures) | X | Worst Floods, Arizona, Evacuations, Homes, Damaging, Bridge, Waste, Landfill, Sewage-treatment Plants, Rivers, Flooding, Rain, Salt River, Phoenix, Rescued, Swollen Streams, Giant River of Milk Chocolate, Gov. Fife Symington, Erode, Tri-City Landfill, North of Mesa, Salt River Project, Releases, Dams Upstream, Valley, Heaviest Flooding, Darrell Jordan, SRP's Manager, Water Resources Management, Bridges and Washes, Closed, 35th, 51st, 67th, 91st Avenues, McKellips, Gilbert Roads, Unbridged Washes, Sgt. Jay Ellison, Maricopa County Sheriff's Department, Grand Avenue, 101st to 111th Avenues, Statewide Flood Emergency, Salt, Verde, Agua Fria Rivers, Roosevelt Dam, Rising Water, Storms, Central Arizona, Anton Haffer, Area Manager, National Weather Service, Rainfall, 7 Inches of Rain, Central Arizona Watershed, Flash-flood Warnings, Maricopa, Gila, Pinal, Yavapai Counties, Verde River, Colorado River, David Carpenter, Meteorologist, Mill Avenue Bridge, Construction, Tempe, Old Mill Avenue Bridge, Debris, Damage Supports, Officer Dick Steely, Tempe Police Spokesman, Prescott Firefighters, Cottonwood Woman, Beaver Creek, McGuireville, Yavapai County Sheriff's Officers, Amy James, Tucson, Pima County, Tanque Verde Wash, Robert Hewett, Strong Currents, 35th Avenue Bridge, Phoenix Police Sgt. William Johnston, People, Rescued, Cave Creek, Foot of Water, Water, Through House, Matt Phillips, Rural Metro Fire Department, Michael Harris, Central Avenue, Phoenix Firefighters, Squatters Camp, River Bank, High Water, Arroyos, School, Cancelled, New River, SRP, Dam System, Sen. John McCain, Army Corps of Engineers, Phoenix Mayor Paul Johnson, Street Transportation Director Jim Matteson, Big Floods, 1978, 1980, 1883, 100-year Flood, February 1980, Gov. Bruce Babbitt, President Carter, Granite Reef Dam, Jeff Boatman, Air Services Air Charter, Horseshoe Dam, Horseshoe Reservoir, Maricopa-Yavapai County Line, Floodgates, Spillway, Downstream, Runoff, Desert Washes, Waterfalls, Cliffs, Mountains, Apache, Canyon Lakes, Muddy Waters, 105th Avenue, Agua Fria River, Southern Avenue, Gila River, Bob Bishop, Director, Emergency Management, Judy Hill |
| 122 | January 9, 1993 | Flood Evacuations in the State - Several Schools Get 'Rainy Day' Off | X | Winkleman, Tucson, Camp Verde, Evacuated, Low-lying Areas, Gila River, Spokeswoman Sharon McCormack, Verde Lakes, Trailer Park, National Guard, Little Colorado River, Winslow, Interstate 40, Navajo Reservation Community, Leupp, Cameron, Navajo President Peterson Zah, Declared, Emergency, Birdsprings, Arizona's Emergency Management Department, Marana, Sedona, Winslow, Wickenburg, Prescott, Jim Howard, Superintendent, Prescott Unified School District, High Water, San Miguel, Coolidge Dam, Globe, Dam, Releasing, San Carlos lake, Flood-swollen Gila, Bureau of Indian Affairs, Williams, Storm Water, Overflowed, Sewage Line, Arizona Department of Environmental Quality Barricaded, Manholes, Flagstaff, Payson, Prescott, Pinewood, Under Water, Boil Water, Clifton, Flood in 1980, 1983, San Francisco River |
| 123 | January 9, 1993 | Saturated Soil Adds to River Flows (& Map) | X | Flooding, Heavy Rains, Drain, Salt and Verde Rivers, 7 Inches of Rain, Storms, Saturated, Ground, Rainfall, Streams, Washes, Runoff, Valley's, Salt River Bed, Swollen Verde River, Granite Reef Dam, Phoenix, Fog, National Weather Service, Flash-flood Warnings, Maricopa, Gila, Pinal, Yavapai Counties, Central Avenue, 1980 Floods, Salt River, Roosevelt Lake, Horseshoe and Bartlett Lakes, Sandbags, Fire Stations, Public Works Facilities, Maricopa County Sheriff's Office, Danger, Evacuated, 105th Avenue, Agua Fria River, Southern Avenue, Gila River, Barricaded, Major Bridges, Gilbert Road, 35th Avenue, Arizona 85, South of Buckeye, Closed, 100-year Floods, Twice, 1978, Once in 1980, Gov. Bruce Babbitt, State of Emergency, President Carter, Major Disaster Areas, Federal Aid |
| 11 | January 10, 1993 | In Parts of Tucson, Flood-Isolated Homes Just a Copter Hop Away | X | Don Hildebrand, Southwest Helicopters Inc., 300 People, Isolated, Raging Wash, Rains, Tucson International Airport, Bell Jet Ranger Helicopters, Hilton East Hotel, Agua Caliente, Tanque Verde Washes, Soil, Fort Lowell Road, Soldiers Trail, Wentworth Road, Mitch Cloutier, Tanque Verde Street, Flooded, Pima County, Residents, Forty Niner Country Club, Laura Penland, PHH Home Equity, Margaret Crabtree, Nick Papanikolas, Manager, Golf Course, Steve Counts, Mechanic, Rick Hornfeck, Assistant, Scott Paper Co., Wash, Oro Valley, Westin La Paloma Resort Arizona, Circle K |
| 42 | January 10, 1993 | Floods to have Little Effect on Crops, Officials Say | X | Agriculture Authorities, Arizona, Rain, Floods, Little Effect, Crops, Jeff Davis, Arizona Farm Bureau, Yuma County, Extension Agent Mark Wilcox, Bad Weather |

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| 49 | January 10, 1993 | State of Emergency - The Flood of 1993 - Planned Dams Could Have Eased Valley Flooding (& Map) | X | Flooding, Valley, Floods of the 1980's, Salt River, Environmentalists, Indian Community, Series of Dams, Salt River Project, Water Storage, Not Flood Control, Orme Dam, Proposed 1976, Early 1980, Salt and Verde Rivers, Regulated Flows, Reservoir, Fort McDowell Mohave-Apache Indian Community, Mesa, Bald Eagle Nesting Areas, Loss of Our Land, Tribal President Clinton Pattea, Won Battle, 1983, Federal Government, Compensate, Tonto National Forest, Dick Perreault, Chief of Planning, Flooding From Watersheds, Scott Harrelson, SRP, Early Releases, Incoming Runoff, Rain, Weather Forecast, Water Delivery Company, Alternatives, Plan 6, Approved, Federal Level, 1984, Raiding Roosevelt Dam, Construction, Cliff Dam, Verde River, Herb Fibel, Maricopa County Audubon Society, Animal Habitat, Riparian Areas, Stream Site Habitats, River Crossing, Gilbert Road, Alma School Road, McClintock Drive, Channeling, River Bed, Mill Avenue, Tempe, Phoenix Sky Harbor International Airport, Paul Cherrington, Manager of Water Engineering and Transmission for SRP, Orme Dam |
| 51 | January 10, 1993 | Winslow, Navajo Areas Flooded - 400 Evacuated - Little Colorado Breaches Dike (& Map) | X | Heavy Flooding, Little Colorado River, Northeastern Arizona, 400 People, Evacuation, Winslow Area, Navajo Indian Reservation, Whole Trees, Dead Cows, Clear Creek, Watershed, Winslow Police Lt. Wayne Wagner, Floodwaters, Major Tributaries, Rushing Waters, Broke, 150-foot Section, Dike, Community of Bird Springs, Navajo Nation President Peterson Zah, State of Emergency, Dike, Breached, Ames Acres Community, Low-lying Areas, Damage, Emergency Crews, Repair, National Weather Service, Flash-flood Warning, Northeaster Arizona's Plateau Region, Mogollon Rim, Blue Ridge Reservoir, Traps Forest Area Runoff, Blocked, Logs, Arizona Army National Guard, Bureau of Indian Affairs, Community of Leupp, Stg. Merv Yoyetewa, Navajo Division of Public Safety, Closed, Arizona 99, Canyon Diablo, Navajo Police Lt. Ronnie Wauneka, Tribe, Aided By, County Governments, Peabody Coal Co., Transporting, Food, Coal, Livestock Feed, Wood, Phoebe Watchman, Tribe's Emergency-management Department, State Assistance, Indian Wells Area, Inscription House, Secondary Roads Impassable |
| 60 | January 10, 1993 | Sad Memory of '83 Flood Won't Wash Away | X | Tucson, Barbara James, Raging River Wash, Colorado River, Grand Canyon, Heavy Rains, Tanque Verde Wash, James Paul Williams, Tanque River Ranch, October 1983, Fast-moving Water, Trapped, Surge of Water, Succumbed to the Swirling Waters |
| 67 | January 10, 1993 | E.J. Montini - Water Shows It's Tougher Than Memory | X | Water, Managed, Salt River, Mill Avenue Crossing, Old Bridge, Completed 1931, Reinforced Concrete, Anchored in Bedrock, Riverbank, New Bridge, Scaffolding, Tumbled Into the Water, Dams, Salt River Project, Too Much Water, Held Back, Verde River and Salt, Creeks and Streams, Saturated Land, Rushed Down, Snow Falls, Rain, Phoenix, All Bridges, Collapsed, Except Mill Avenue Bridge, Water Beating, Pylons Below |
| 99 | January 10, 1993 | Arizona Braces for More Rain, Flooding - Water Releases Cut, but Breather is Short (& Pictures) | X | Murky Rivers, Phoenix, Evacuated, Arizona, Torrential Rains, Swell Rivers, Reservoirs, Flooding, Flash-flood Watch, Heavy Rains, National Weather Service, Craig Ellis, Meteorologist, Saturated, Rain, Low Areas, Roads, Washes, Streams, Rivers, Riverbeds, Mill Avenue Bridge, Construction, Tempe, Garbage, Debris, Landfills, Salt River Bed, Unbridged Crossings, Closed, 35th Avenue, Gilbert Road, Old U.S. 80, Bridge Damage, Gillespie Dam, Arizona 85, Gila River, Washed Out, Damage, New Bridge, Army Corps of Engineers, John Paulsen, Arizona Division of Emergency Management, Red Cross, Valley, Farming Area, Winslow, Evacuated, Little Colorado River, Broke 150-foot Section, Dike, Birdsprings Chapter, Northeastern Arizona, Maricopa County, Mesa, Mobil Home Park, Claudia Schnagl, Red Cross Spokeswoman, Karen Paulsen, Spokeswoman Division of Emergency Management, Maricopa, Pima, Apache, Coconino, Gila, Graham, Yavapai Counties, State Aid, Flood Plains, Water Releases, Reservoirs, Flood Control, Crop Irrigation, Rain Clouds, Southern California, Arizona's Mountains, Teri Morris, Spokeswoman, Salt River Project, Golf Industry, Southwest Helicopters, Tucson, SRP Hydrologists, Huge Faucets Granite Reef Dam, Melt Snow, Water Downstream, Salt and Verde Rivers, Water Storage, Watershed Flows, lakes, Dams, Granite Reef Diversion dam, Channels Water, Irrigation Canals, Roosevelt Dam, Undergoing Renovations, Spillway gate, Dam's Interior Tunnel, Roosevelt lake, SRP Spokesman, Scott Harelson, Runoff, George Blanton, 107th Avenue, Beekeeper, Lost 120 Hives |

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| 101 | January 10, 1993 | Lawn Griffiths - Emergency Duty Has a Familiar Ring - (& Picture) | X | Salt and Verde Rivers, American Red Cross, Phoenix, Maricopa County Emergency Operations Center, 52nd Street and McDowell Road, Strategic Air Command, Omaha, Neb., Phoenix Command Post, Aerial photographs, Maps, Charts, Lists of Bridges, Street Closures, Water Flow Rates, dams, Palo Verde Nuclear Plant, Computers, Telephones, Two-way Radios, Scanners, Emergency Manuals, Hotline Numbers, Maricopa County Emergency Management, State Department of Transportation, Maricopa County Sheriff's Department, County Flood Control District, County Health Department, Central Arizona Chapter of the Red Cross, Weather, Water Releases, Road Closings, Flooding, Casa Grande, Flagstaff, Nah, 1992 Eruption of Mount Pinatubo, Philippines, Yavapai County, Blue Ridge Dam, Swept Away, ADOT, Salt River Project, SRP, Reporting Flow |
| 108 | January 10, 1993 | Rainy Days Not Over Yet (& Pictures) | X | Floodwaters, Salt River, Damage, Second Mill Avenue Bridge, Tempe Officials, Unfinished Bridge, SRP, Large Flows, Verde and Salt River System, Heavy Rains, Winter Runoff, Swept Away, Bridge's Nine Spans, Construction, Shoring, Scaffolding, Iron Reinforcing Rods, Water-mauled Structure, Valley Onlookers, James Towle, Chandler, River Running, Wrecked Bridge, Business, Mill Avenue, Charlie Mitchell, Kelly's Coffee Factory, Mesa, County Club Drive, Riverbed, Raging Water, Tommi Hargett, Tracy Knudsen, Megan Buechner, Garbage-filled River, Stan Barnes, Arizona, Tempe, Jim Jones, Cities Director of Public Works, Flood Insurance, Edward Kreamer and Sons, Cover Rebuilding, Rio Salado Project, 100-year Flood Channel, Highest Rate, River Flowed, Scott Harelson, SRP Spokesman, Levees Banking the River Channel |
| 114 | January 10, 1993 | Damage Noted as Fresh Storm Targets Valley | X | Flood-related Damage, Storm, National Weather Service, Dump, Saturated Ground, Evacuations, Valley, Homes, Flooded, Second Mill Avenue Bridge, Waters, Span, Water Tore Away Portions, Uncompleted Span, Salt River Project, Reduced Water Flow, Granite Reef Diversion Dam, Scott Harelson, SRP Spokesman, Dams, Good Condition, SRP, Record Amount, Watershed, Glendale, Craig Ellis, Weather Service Forecaster, Wet Storm, Tropical Moisture, Flash Flood, Flood Watch, Western Arizona, Southern California, Running Off, Rainy Weather, El Niño, Warm, Inshore Current, West Coast, Trade Winds, More Rain, Unbridge Crossings, McKellips Road, Gilbert Road, Closed, Red Cross, Mesa, Cashion, Claudia Schnagl, Red Cross Spokeswoman, Mark Trujillo, Central Arizona Shelter, Homeless Shelter, Phoenix, Mesa's Aloha Trailer Park, Country Club Drive, Police Barriers, Salt River, West Phoenix, Holly Acres, Sgt. Jay Ellison, Maricopa County Sheriff's Office Spokesman, Winslow, State of Emergency, Large Breaks, Dike, Little Colorado River, Ames Acres, Capt. Larry Baldwin, Acting Winslow Police Chief, Tucson, Pima County Sheriff's Sgt. Ron Benson, No Structural Damage to Bridges, Rillito River, Northern Arizona, Sedona Area, Verde Lakes Community, Camp Verde |
| 115 | January 10, 1993 | How to Handle Flash Flooding | X | Flood. Plans, Emergency Supply Kit, Electrical, Water, Gas, Report, Broken, Disrupted Utility Lines, Flash Flood Watch, Flash Flood Warning, Washes, Unbridged Crossings, Rising Creeks, Rivers, Watch or Warning is Cancelled |
| 128 | January 10, 1993 | Flooding Will Leave 'Cesspools' - Debris from Landfills Called Health Hazard (& Pictures) | X | Salt River, Floodwaters, Garbage, Debris, Landfills, Riverbed, Filthy Pools, Stagnant Water, Rotting Material, Hazardous Bacteria, Valley Environmentalist, Salt River System, Jim Lemmon, Environmental Consultant, Hydrologist, Arizona Department of Health Services, Cesspools, Decay, Stinks, Old Tires, Septic, Mosquitos, Flies, Vectors, Human Disease, Flood, Tri-City Landfill, North of Mesa, Waste Material, Bill Mundell, State Representative, End Dumping, Pollution of Aquifer, Buckeye, John Godic, Spokesman, Arizona Department of Environmental Quality, Salt River Pima-Maricopa Indian Community, Assess Damage, Building Material, Principally Construction Debris, Closed Pockets of Debris, Flushing Out, Mesa, Tempe, Scottsdale, Cleanup, Federal Government Regulations, Massive Liability, Northern Arizona, Flooding and Runoff, Sewage Overflow, Flagstaff, Payson, Prescott, Pinewood, Draining, El Rio Flag, Chlorinated Sewage, Pumphouse Wash, Oak Creek, Payson and Gisela Areas, Tainted, Drinking-water System, Boil Water, Discharged Into American Gulch, Granite Creek, Granite Lake, Damage Riparian Areas, Birds, Waterfowl, Catfish, Carp, Turtles, Hunt, Fish, Eat |
| 36 | January 11, 1993 | Flood Insurance Complex, Expensive System Keeps Valley Above Water (Map) | X | Six Salt River Project Storage Dams, Verde and Salt Rivers, Arizona Canal Diversion Channel, New Waddell Dam, Lake Pleasant, Agua Fria River, Levees, Channels, Constructed, Accommodate, High Volume of Water, Bridges, Cross, River, Heavy Flooding |
| 54 | January 11, 1993 | Homeowners' Policies Offer Varied Protection (& Picture) | X | Arizona Residents, Property, Damaged, Floods, Insurance Policies, Money Maters, IDS Financial Services, Insurance Companies, HO-1 Through H0-6, Type of Coverage, Excluded, William Brennan, Editor, Financial Planning Reporter, Ernst and Young, Menaces, Excluded, Earthquakes, Floods, Termites, Landslides, Wars, Tidal Waves, Nuclear Accidents, Widespread, Costly, Insurance Prohibitively High, Natural Disaster, Calamity, Flood Insurance, Government Program, Floods, Havoc |

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| 65 | January 11, 1993 | Golfer's and 'Snowbirds' Holed Up By Rain, Floods (& Picture) | X | Dwaine Hibbs, Rain Clouds, Superstition Mountains, Flood, Valley, Vacationers, Arizona, Mexico, Bob Dallas, Mesa, Bryan and Tanya Berg, Jeff Lessing, Director, Superstition Springs Gold Course, Rain, Joe Hoffman |
| 75 | January 11, 1993 | In the Wake of the Storm - Valley Gets Break in Rain, Flooding - Water Releases Cut Back Despite State's Drenching (& Picture) | X | Chain of Storms, Wrecked Havoc, Arizona, Forecasters, Flooding, Rain, John Underhill, Salt River Project's Emergency Operations Center, Record Water Releases, National Weather Service, 1.84 Inches, Sky Harbor International Airport, McDowell Mountains, 2.48 Inches, 8 Inches Snow, Watershed, Higher Elevations, Heavy Rains, Sunflower Area, SRP, Flow, Granite Reef Dam, Jeff Lane, SRP Spokesman, Salt River, Floodings, Evacuations, Bridge Closures, Meteorologist Craig Ellis, Flash Flooding, Piles of Rotting Trash, Debris, River's Edge, Garbage, Tri-City Landfill, North of Mesa, Salt and Verde Rivers, Gorging, Dry Washes, Valley 's Water Storage System, Capacity, Low-lying Areas, Damages, Four Deaths, Federal Aid, Karen Paulsen, Spokeswoman, State Division of Emergency Management, Low-interest Loans, Roads, Dams, Bridges, Public Structures, Sen. Dennis DeConcini, Gov. Fife Symington, Flood Emergency, Arizona National Guard, Rescues, Sandbagging, Flood-control, Maj. Dean LeVay, Flood Warning, Gila River, Coolidge Dam, Swamp Communities Downstream, Phoenix, Cresting, Spillways, Bureau of Reclamation, Winkleman, Kearney, Hayden, Riverside, Kelvin, Precautions, Holly Acres, Contamination, Landfills, Broken Sewage Lines, State Department of Health Services, Daniel Roe, Spokesman, Division of Emergency Management, Tri-City landfill, Breach, Salt River Pima-Maricopa Indian Community, Garbage, Mesa, Scottsdale, Dumped, John Godec, DEQ Spokesman, Cleaning Up, DEQ Director Ed Fox, Indian Communities, Cities, Water Table, Hayden Road, Rot, Riverbed |
| 85 | January 11, 1993 | Flood-Control Measures Work 'Fantastically' in First Major Test | X | New Waddell Dam, Arizona Canal Diversion Channel, Channelization, Levees, Flood-control Dams, Automated Rain Monitors, Reinforces Bridges, Shoveling Mud, Flood-control Officials, City, County, State, Federal Agencies, Channel, Water, Valley, Storms, Designed, Stanley Smith, Acting Chief Engineer and General Manager County's Flood Control District, Heavy Rain, Verde River, Salt River, Floods, 1978, 1979, 1980, Improvements, Huge Runoffs, Pockets of Flooding, Torrential Rains, Summer, Rivers and Washes, Snow, Higher Elevations, Water Routes, Colorado River, Yuma Via Gila River, Gila and Salt, Scottsdale, Agua Fria River, Salt River Project, Six SRP Dams, Watershed, Roosevelt, Stewart Mountain Dam, Horseshoe, Bartlett, Release Water, Prescott, Verde Valley, Sedona Areas, Horseshoe Lake, Bartlett Lake, Dan Phillips, Supervisor, Water Resource Operations SRP, SRP Hydrologists, Riverbed, Widened, Levees Built, Dug Deeper, Sand and Gravel Companies, Channeled, Improve Flow, Dick Perreault, Chief of Planning, Flood Control District, Flood in 1980, More Bridges Built, Old Ones Reinforced, Tony de la Cruz, Street Maintenance Superintendent, Phoenix, Reconstructed and Reinforced, 35th Avenue Bridge, Chuck Morfoot, Spokesman, Federal Bureau of Reclamation, Lake Pleasant, 17-mile Ditch, Arizona Canal for 40th Street and Camelback to 75th Avenue and Bell Road, Skunk Creek Wash, 32nd Street and 40th Street, Under Construction, Channel Diverts Water, Urban Washes, Storm Drains, 13-year Old Cave Buttes Dam, New River Dam, Built 1985, Adobe Dam, Built 1980, Dreamy Draw Dam, Built 1974, Holly Acres, 115th Avenue 7-year Old Levee |
| 125 | January 11, 1993 | Rain Covers Soggy State, More is Due - But Light Total Lets SRP Cut Flows in Valley (& Pictures) | X | Arizona, Rain, Salt River Project, Reduce, Water Flows, Valley, Storm, Flooding, Rainfall, Watershed, Central, Eastern Arizona, Granite Reef Diversion Dam, Salt River, Flooding, 1983, SRP, Schools, Closed, National Weather Service, Gila River, San Carlos Lake, Florence, Arlington, Phoenix, Hassayampa River, Gillespie Dam, Earthen Structure, Protect Farmland, Debris, Tri-City Landfill, North of Mesa, Environmentalists, Soaking Garbage, Sediment, Pools, Riverbed, Sen. Dennis DeConcini, Flood Ravaged Area, Arizona National Guard, Wasteland, Heavily Damaged, Landfill, Salt River Pima-Maricopa Indian Community, Army Corps of Engineers, Protect the Dump, Widespread Flooding, Division of Emergency Management, Winslow, Yavapai, Coconino, Pima, Gila, Maricopa, Graham, Apache, Greenlee, Gov. Fife Symington, State of Emergency, Federal Aid, Flash-flood Warning, Gila River Communities, Hayden, Kearney, Kelvin, Riverside, Winkleman, Coolidge Dam, Winkelman Flats, Evacuated, Arlene Mckeeby, Owns Desert Rose Cafe, Cotton Farm, Randy Vanosdell, Inundated, Foot Deep, Homes, Rainbow Valley, Southeast of Buckeye, Flood Waters, Damaged, Dave Banks, Spokesman for U.S. West, Holly Acres, Winslow, Ames Acres, Little Colorado River, Navajo Indian Reservation, Bird Springs, Leupp, Indian Wells, Arizona 85, U.S. 80, Buckeye, Arizona 99, 35th Avenue Bridge |

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| 6 | January 12, 1993 | For Flooded Winkelman, The Worst id Yet to Come - Gila Rising Rapidly; Releases Set Record (& Map) | X | Southeast Arizona Mining Town, Winkelman, Under Water, Gila River, The Flats, Overrun with Water, Storms, Flooding, Water-related Chaos, Federal Government, Spillways, Coolidge Dam, Flow, Downstream, Mayor Arnold Ortiz, Water Flowing, Sandbagging, Failed, 150 Houses Flooded, Evacuated, Gila County Sheriff's Office, Chief Deputy Charles Barron, Red Cross, Emergency Shelter, U.S. Army Corps of Engineers, Built Dike, Less Powerful Flood, Dam, San Carlos Indian Reservation, Bureau of Indian Affairs, Bureau of Reclamation, Safety Improvements, Interior Department, 1989, Most Dangerous Federal Dam, BIA Engineer Ken Clouser, Greater Deluge, Storage, Chuck Morfoot, 1983 |
| 59 | January 12, 1993 | Canyon Grandeur Can't Displace Sight of Sludge in Salt | X | Grand Canyon, Salt River, Arizona, Garbage, Toxic Waste, 63 Landfills, Banks, Floods, Collapse, Mill Avenue Bridge, Rainstorm, Polluted River, Eyesore, Watercourse, Menace, Valley, Drained Salt River, Jagged, Ugly, Dried-out Scar, Urbanologist Neil Peirce, Sky Harbor International Airport, Rocks and Cement, Colorado River, Cesspools, Phoenix, Pesky River, Mayor's Task Force, Chunks of Garbage |
| 83 | January 12, 1993 | Dumping Ground of Excuses - No One Wants Blame for Mess at Landfill (& Picture) | X | Fights, Flood-damaged, Tri-City Landfill, High Water, Tore, Government Agencies, Environmentalists, Salt River Pima-Maricopa Indian Community, Assign Blame, Landfill, Erode, Salt River, Rotting Garbage, Public Health Risk, 3,000 Truck Loads, Rains, Steve Brittle, Don't Waste Arizona, Lawsuit, U.S. District Court, Injunction, Closing, Trouble-plagued Landfill, McDowell Road, Beeline Highway, Mesa, Scottsdale, Tempe, Remove, Portion, River's Flood Plain, Indian Community Spokeswoman, Janet Johnson, Stabilize 400-acre Landfill, U.S. Army Corps of Engineers, Joe Dixon, Spokesman for the Corps, Phoenix, Ed Fox, State Department of Environmental Quality, U.S. Environmental Protection Agency, Failed, Enforce Regulations, DEQ Spokesman John Godec, Clean Water Act, Violation, ENSCO Hazardous Waste Incinerator, Southwest of Phoenix, Rained, Damage, Health Officials, Norm Peterson, State Department of Health Services, Water Flowing Down Salt, Dilute, Contaminants, Point of Danger, Agricultural Runoff, Jim Lemmon, Environmental Consultant, Arizona Public Health Association, Garbage Rotting, Septic, Breeding of Flies, Mosquitos, Rodents Contamination of Underground Aquifers, Garbage, Filth, Clean Up River, Trash, Piled, Riverbed, Hayden Road |
| 95 | January 12, 1993 | Emergency Planners Cast Wary Eyes to the Skies (& Picture) | X | Storm Front, Hawaii, Maricopa County, State Emergency Planners, Robert Bishop, Director Maricopa County's Department of Emergency Management, Valley, Storm, San Diego, National Weather Service, Snow Level, Precipitation, Frozen, Not Melt, Snowpack, Hector Vasquez, Weather Forecaster, Rain, Salt and Verde Rivers, Papago Military Reservation, Sandy Leander, Spokeswoman, SRP, Salt River Project, Wall Charts, Maps, Bridges, Roads, Dams, Maricopa County Sheriff's Office, Arizona Division of Emergency Management, New Dams, Bridges, Canals, Diversion Channels, Palo Verde Nuclear Plant, Coolidge Dam, Gila County, Globe-Miami Area, Salt and Verde River System, Granite Reef Dam, Phoenix, Coconino, Pima, Gila, Maricopa, Graham, Apache, Greenlee, Yavapai, Declared Flood Emergency, Emergency Services Planners John Stewart, Mary Riddle, Relief Operations, Unincorporated, Mel Calderon, Carlos Apodaca, Rosendo Calderon, Salvage Scrap Metal, Receding Salt River, River Bottom |
| 103 | January 12, 1993 | New River Floods, Stands 100 - Waters Go Over Berm, Turn 36th Avenue Into Another River (& Pictures & Map) | X | Jim Downes, New River, Exploding, Dirt Berm, Wall of Floodwater, Stranded 100 Residents, North of Phoenix, Floodwaters, Scouring Out, New River - "36th Avenue", New River Road, Interstate 17, Huge Boulders, Driveways' Rock Quarries, Corrals, Vanished, Maricopa County Search and Rescue, Knee-high Water, Salvation Army, Sparky O'Neill, Roaring Water, Wiped Out, Old Stage Coach Road, Coyote Pass, Maricopa County, Failing, Reinforce Berm, County Construction Workers, Repair Road, Impassable Mud Bog, Larry Lambertus, Kent Hamme, Maricopa County's Assistant Engineer, Highway Operations, Rain, Break in Berm, River, Meander, Floodplain, Dick McKeon, Gouged Out 6-foot Strip of Bank, Storm, Arizona, Deserts, Snow, Mountains |
| 4 | January 13, 1993 | Gila River Flood Warning Issued as Storm Moves In | X | National Weather Service, Flood Warning, Gila River, Coolidge Dam, Painted Rock Dam, Pacific Storm, Valley, Winkelman, Hayden, Kearney, Kelvin, Florence, Gila Indian Reservation, Downstream, Salt and Gila Rivers, Gila Bend, Pinal County Towns, Flooding, Evacuation, Phoenix, Water, Running, Spillways, Meteorologist Robert Wilt, Flows, Higher than Normal, Mesa Fire Department, Sandbags, Tom Wright, East Valley, McKellips Road, Mesa Fire Station, Fire Station, Gilbert Public Works Department, Tempe Fire Station, Reservoir, Pinal County, Pinal County Public Works Department, Flood Updates, Road Closure Information, Record Amount of Rain, Highest Level, Cave Buttes Dam, Built 1979, Overflowed, Old Cave Creek Dam, Replaced, Flood Control District of Maricopa County |

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| 106 | January 13, 1993 | Doug MacEachern - Loss of Bridge Fails to Dampen Spirits (& Picture) | X | River, Chunks, Tempe Bridge, Toppling Down, Surging Floodwaters, Dry Salt River Bed, Collapsing Bridge, TV Reporter Bill Blannon, Onlookers, First Spans, Splashed Down, Chocolate Spew, Demise, Effects of Big-water Rain, Arizona, Flow of Water, Big Muddy, Valleywide Rio Salado Project, Tempe, Phoenix, Salt River Project, Timber, Grating, Steel Beams, Damage, Tempe Public Works Director Jim Jones, Bridge-builders Insurance, Kraemer & Sons, Carved Channel, Floodwaters, Salt River Bed, Churning Water, Channelization, November 1987, Voters Turned Down Proposal, 1990 Tempe Decided to Go Rio Salado, Raging Waters, Rio Salado Channel, Ushers Along Concrete-reinforced Banks |
| 48 | January 14, 1993 | Flood Control System Worked (& Picture) | X | Rainstorm, Valley, 1978, 1979, 1980, Devastation, Storm, Destruction, Mill Avenue Bridge, Salt River, Freeway Bridge, Closed, River Crossings, Submerged, Torrents of Water, Central Avenue, Irrigation Canals, Overflowed, Lakes, Phoenix, Holly Acres, New River, Flooded Out, Tri-City Landfill Eroded, Garbage, Swollen Muddy Salt River, Arizona, Winkelman, Duncan, Tucson, High Water, Damage, Traffic, Unimpeded, Seventh Street, Seventh Avenue, 32nd Street, Country Club, New Waddell Dam, Plan IV, Water Storage, Flood-control, Cost-sharing Project, Rains, Lake Pleasant, Agua Fria River, Three Maricopa County Flood Control District Dams, New River Dam, Cave Buttes Dam, Adobe Dam, Arizona Canal Diversion Channel, Sand Bag, Insurance Claims, Rain and Runoff, Diverted, ACDC, Concrete Ditch, Cave Creek and Cactus, From Overflowing, Indian Bend Wash, Scottsdale, Verde, Bartlett and Horseshoe Dams, Federal Dam Safety Legislation, New Spillway, Stewart Mountain Dam, SRP Control, Bridges, Dams, Channelization's, Rain Monitoring Equipment, Stanley Smith, Acting Chief Engineer Maricopa County Flood Control District, Salt River Valley, Sonoran Desert, Maricopa County Board of Supervisors, Lowered, County Flood Control Tax, Storm Water, Channelization of Salt, McClintock Road, Tempe, Improved Cave Creek Channel, Bell Road to Beardsley Road, Phoenix, 32nd Street and Salt River |
| 57 | January 14, 1993 | DPE Sinks Tanks Headed for Bridge - I-10 Traffic at Gila River Crossing Backs Up 3 Miles During Wait (& Map & Picture ) | X | Flooding, Arizona, State Police, Blew Up, Two Huge Tanks, Floating, Toward a Bridge, Gila River, Sgt. Rick Knoght, Department of Public Safety, Interstate 10 Bridge, Bapchule, Army National Guard, Rescue if Seized by Swift Current, No Longer Threaten Bridge, Floating Down River, Debris, DPS, State Departments of Transportation and Environmental Quality, National Guard, Phoenix Fire Department, Dan Powell, ADOT District Engineer, Water Flows, 1983 Washed Out Approaches, Bridge, Reinforced |
| 77 | January 14, 1993 | Under Water in Winkelman - Symington Vows State Help, But Residents Doubt It Will Be Enough (& Pictures) | X | Gov. Fife Symington, Flooded Area, Evacuated, Guillermo Chavez, The Flats, No Flood Insurance, Winkelman, Water Covered Rooftops, Low-laying Section, National Guard Helicopter, Flood, Funds, State Commerce Department, Federal Emergency Assistance, Red Cross, Jerry Bracamonte, Homes Damaged by Water, Bob Lorna, Bonnie Mariscal, Swamped by Water Releases, Coolidge Dam, Upstream, Gila River, San Pedro River |
| 129 | January 14, 1993 | Gila County Scrambles for Disaster Plan - Everyone Ready for Dam failure, Not Flood Crisis (& Pictures) | X | Coolidge Dam, Emergency Planners, Flooding, Gila River, Gila County, Carmen Corso, Director, Emergency Services for Gila County, Maricopa County, Detailed Engineering Analysis, Dams, Computer Model of Gila River, Help Tremendously, Highest Flows, 1983, Collapse, Most Dangerous Federal Dam, Built, 63 Years Ago, 1989 Interior Department Report, Chuck Morfoot, Spokesman, Bureau of Reclamation, Gov. Fife Symington, Winkelman, Flooded by Increase Water Flows, National Guard, The Flats, Water, Tops of Houses, Gila County Sheriff's Deputy George Brunson, Floods, Flood Insurance, Ernie Lorona, Evacuated, Kearney, Mayor Ken Huish, Red Cross, Emergency Shelter, Brad Gair, Director, Pinal County Flood Control District, Florence, Gila River Indian Community, Urban Giff, Community Manager for Indian Community, State of Emergency, Storm, Water Releases, rainfall, Environmental Concerns, Flooded Part of Copper Leaching Operation, ASARCO Ray Complex, Mineral Creek, Gila Tributary, Kevin Morano, General Manager, Concrete Leaching Pit, Pauline Valdez |
| 5 | January 15, 1993 | Flooding's Toll on Environment May Cost Millions | X | Environmental Aftermath, Flooding, Cost Millions, Brunt of Costs, Ed Fox, Arizona Department of Environmental Quality, Trash Being Washed, Salt River, Tri-City Landfill, Cleanup Problems, House Environmental Committee, Situation, Winkelman, Gila River Flooding, Evacuation, Community, Environmental Mess, Predicted a Washout, Cities Using Dump, Failed to React, Warning, Rep. Richard Kyle, Rep Sue Grace, Bar, Arizona Communities, Landfill, Federal Standards, Salt River Pima-Maricopa Indian Community |
| 17 | January 15, 1993 | Powerful Force (Picture) | X | Spillways, Coolidge Dam, Water, Swollen Gila River, Flood Threat, Winkelman, Area, Under Water, Evacuated, Riverside Community, 63-year Old Dam, Gila River Canyon, Phoenix, Mining Region |

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| 31 | January 15, 1993 | Residents of Flooded Area Want Government to Purchase Homes | X | Winkelman, Flooded Out, Homes, Mining Town, The Flats, 100-year Floods, Sen. Peter Rios, Underwater, 350 People Homeless, Flooding, Gila River, Water, Rooftop, Downstream, Natural Gas Line, Florence, Washed Out, State Department of Corrections, Michael Arra, Phoenix, Tucson, Globe, Southwest Gas Officials, Releases, Overflow, Coolidge Dam, Arizona, National Weather Service, Showers, Oregon, Hail, Stream Flooding, New Mexico Line, Painted Rock Dam, Gila Bend, 850 Homes Statewide, Damaged, Red Cross, Gov. Fife Symington, Flood Emergency, Contingency Funds, Hayden, Air National Guard, U.S. Rep. Karan English, President Declare a Disaster, Federal Money, Loans, Assistance, 1983, Small Business Administration, Winkelman Flats |
| 32 | January 15, 1993 | Coolidge Dam Still Up - 'It is Not Going to Fail' BIA Safety Coordinator Says (& Pictures) | X | 65-year Old Coolidge Dam, Record Flows, Spillways, Dangerous Dams, Operators, Unconcerned, Federal Funding, Reconstruction, Ken Clouser, Dam-safety Coordinator, Federal Bureau of Indian Affairs, Bureau of Reclamation, Imminent Hazard, Failure, Winkelman Flats, Evacuated |
| 45 | January 15, 1993 | Coolidge Dam Still Holding (Pictures) | X | Coolidge Dam, Jimmy Kniffin, Record Flows, Dam, Five Most Dangerous, Cracks, BIA Official Jerry Hearty, Concerns |
| 46 | January 15, 1993 | Salt's Banks to be 'Armored' at Landfill | X | Tri-City Landfill, Flood-swollen Salt River, Trash Downstream, Ed Fox, Director, State Department of Environmental Quality, Salt River Pima-Maricopa Indian Community, Landfill, Scottsdale, Mesa, U.S. Army Corps of Engineers, Protecting Federal Rivers, Maricopa County Flood Control District, Emergency Dike, Interim Armoring, Riverbanks, Permanent Hardening Mid-1994, Flows, Valley, Federal Clean Water Act, Salt River Project Dams, Eroded, Landfill, Phoenix, Fill 3,500 Garbage Trucks |
| 44 | January 16, 1993 | Dry and Dry Again: Rain-Related Woes Need Attention | X | Rainstorms, Leaks, Dave Swartz, Operations Manager and Inspector, Semmens and Associates, Phoenix, Landscaping, Water Drains Away from House, Foundation Settles, Cracks, Plant Damage, Drowning, Rot, Good Drainage, Funguses, Mary Irish, Horticulturist, Desert Botanical Garden, Steve Carter, Boyce Thompson Southwestern Arboretum, Too Much Water, Too Heavy, Topple Over, Swimming Pools, Chemistry, Debris, Dirt, Greg Garrett, Shasta Industries, Green Algae, Overflow, Back-flush, Dig Trenches, Drain Standing Water |
| 53 | January 16, 1993 | Federal Flood Aid Sought by Governor - Damage at $25 Million, More Rain is Forecast | X | Statewide, Flood Damage, Gov. Fife Symington, President Bush, Declare, Arizona, Flood-disaster Area, Flood Relief Funds, Repair Damages, Release, State Funds, Rainy, Flooding, National Weather Service, Flood-related, Scottsdale City Manager Dick Bowers, Discontinue, Tri-City Landfill, Mesa, State Emergency, Dan Roe, Red Cross, Flood Warning, Winkelman, Hayden, Kearney, Kelvin, Florence, Gila River, Phoenix, Low Water Flows, Coolidge Dam, John Egan, Salt River Project, Granite Reef Diversion Dam, Mesa, Financial-damage Assessments, Maricopa, Pima, Gila, Yavapai, Navajo, Graham, Coconino, Apache, Greenlee, Pinal, Heavy Water Releases, Washed, Garbage, Landfill, Downstream, 3,00 Garbage Trucks, Valley Wide Cleanup, Debris, River's Banks, Erosion, Scottsdale, Maricopa County's Cave Creek Landfill, Arizona Public Service Co., KTVK-TV, Joint Flood-relief Effort, APS, Flood-torn Area, Blue Cross and Blue Shield, Winslow, Oak Creek, Cave Creek, New River, Wickenburg, Holly Acres, The Flats in Winkelman, Tanque Verde Area, Tucson, Marana, Duncan, Punkin Center, Gisela, Mammoth, Douglas, Clifton |
| 61 | January 16, 1993 | When Deluge Ends, Repairs, Grieving Start | X | Rivers, Flooded House, Santa Cruz River, 100-year Rainstorm, October 1983, Rillito, Flood Plain, Tucson, Flood Victims, Grieving Stages, No Flood Insurance, Dig Through Sand, Pushed Out All the Mud, Sand Dunes Away, Leveled Yard, Furniture Discarded |
| 68 | January 16, 1993 | Uneasy Clients Could Doom Tribal Landfill - Scottsdale Stops Hauling; Mesa Ponders Move | X | Salt River, Awash, Garbage, Tri-City Landfill, Scottsdale, Stop, Ripped Open, Floodwaters, City Manager Dick Bowers, Cleaning Up, Dumping, Salt River Pima-Maricopa Indian Community, Mesa, Mesa Mayor Willie Wong, Betsy Westall, Manager, Solid Waste, State Department of Environmental Quality, Federal Protection Agency, Substandard Landfills, Closed, Revised Environmental Standards, Maricopa County's Cave Creek Landfill, Shoring UP Eroded Areas, Mark O'Conner, Mesa's Recycling and Special Projects Coordinator, Alternatives to Dumping, Washout, Legislature, Federal Law, Bruce Crandall, Mesa Public Works Manager, Rep. Sue Grace, DEQ, 15 Years of Warning Issued, Landfill Improperly Built, Susceptible to Major Floods, Legal Dumping, Hazardous Waste, 1970s, Garbage Floating Down River, Federal Rules, Tribal Leaders |

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| 94 | January 16, 1993 | High Anxiety Forecast - Flooding May Worsen; Roosevelt Dam Construction Imperiled (& Picture) | X | Heavy Rain, Substantial Flooding, Salt River, Valley, Salt River Project Hydrologists, Central Mountains, Roosevelt Lake, Temporary Dam Protecting, Roosevelt Dam's Spillways, Construction, 80-year-old Dam, Heavily Damaged, Danger, SRP, John Keane, Executive Water Policy Analyst, National Weather Service, Flash Flood Warning, Meteorologist Bob Survick, Heavy Runoff, Release, Reservoirs, SRP Spokeswoman Sandy Leander, Bridges, Tri-City Landfill, Dry Riverbed, Salt and Verde Rivers, Phoenix, Elevate Dam, 77 Feet, Improve Storage Capacity, Rainfall Forecast, Top, Coffer Dam, Exposed Irrigation Pipe, Damaged, Breached, Relief, Flood Victims, State, Arizona Emergency Council, Governors Emergency Fund, Gov. Fife Symington, Fund, President Bush, Declare Arizona Federal Disaster Area, William Lockwood, Director, State Division, Emergency Management, Federal Funds, Sen. Dennis DeConcini, Winkelman Flats Area, Build Levee, Protect, People, Winkelman Vice Mayor Gilberto Ruiz, Low-lying Areas, Federal Relocation, Flooding Along Gila, San Pedro, Santa Cruz, Southeastern Arizona, Evacuations, Kearney, Kelvin, Gila River Reservation, Gila River Communities, Coolidge Dam |
| 100 | January 16, 1993 | Salvage from the Storm - Act Swiftly to Reduce, Replace Flood Losses (& Pictures) | X | Home, Flooded, Water, Mud, Soggy Garbage, Salvaged, Personal Safety, Documenting Losses, Insurance Reimbursement, Eligible Federal or State Grants of Loans, National Flood Insurance Program, Turn Off gas Lines, Turn Off Main Power, Electrician Check System, Throw Out Food, Boil Water, Disinfection, Take Pictures, Diana Herrera, Western Regional manager, Small Business Administration, Arizona, National Disaster Area, House Structure, Dave Swartz, Operations Manager and Inspector, Semmens and Associates, Cracks, Foundation, Flooring, Don LaBarge, Owner, Desert Chem-Dry, Furniture, Norm Barth, Owner, Custom Wood Finishing, Scottsdale, Gloria Molina, Manager, Mesa Mattress, Ed Smith, Owner, Service Master, Vehicles, Comprehensive Auto Insurance, Flood Damage, Covered, State Farm Insurance Representative, Lou Grubb, Grubb Chevrolet, Wayne Osbarger, Ultimate Deal, Swimming Pools, dale Howard, B & L Pool Repair and Supply, Torrential Rains, Appliances, Inspect, Clothing, Fabrics, Mary Avila, Owner, Downtown Laundry and Drycleaning. Inc., Photographs, Evelyn Grant, Grants Photographic Restoration, Tempe, Winkelman Flats, Gila River, Cecilia Perez, Becky Garcia, Arthur Monterde |
| 62 | January 17, 1993 | Record-Breaking Rain to Douse Valley | X | Wet Weather, Valley, Record Established, 1920s, Most Consecutive Days with a Trace or More of Rain, Broken, 12th Straight Day, 10 Days in 1921,Tied in 1926, National Weather Service, Meteorologist Bob Berkowitz, Bad Storm, Moisture, Subtropical Jet Streams, Strong Cold-air System, Lower the Snow Level, Flash Flood Watch, Central, Western Arizona, Flood Warning, Gila River, San Carlos Dam, Painted Rock Dam, Danger, Flooding, Higher Ground, Soil, Saturated, Heavy Runoffs, Northern Arizona, Flood Threat, Releases, Roosevelt Dam, Southeast of Phoenix, 80-year Old Dam, One Operating Spillway, Construction, Blocked Spillway, Improve Capacity, Granite Reef Diversion Dam, Salt River, Substantial Damage, Bridge, Under Construction, Downtown Tempe, Washed Garbage, Tri-City Landfill, Central Arizona Chapter, American Red Cross, Arizona State, Globe, Tucson, Claudia Schnagel |
| 63 | January 17, 1993 | Scottsdale Temporarily Switched Landfills | X | Scottsdale, Maricopa County's Landfill, Tri-City Landfill, Scottsdale City Manager Dick Bowers, Temporary, Eroding, Sending Trash, Rushing Salt River, Cities, Dumping, Cleaning Up, Mesa, Tempe, Salt River Pima-Maricopa Indian Community Land, Mesa Mayo Willie Wong, Negative Publicity, 19th Avenue Landfill, Gov. Fife Symington, Federal Aid, Landfill Problem, U.S. Army Corps of Engineers, Arizona Emergency Services, Federal Emergency Management Agency, Department of Environmental Quality, Protect Landfill, Further Erosion, Tribal President Ivan Makil |
| 64 | January 17, 1993 | Spectator - Stupidity Storm Warnings | X | Rain, Wash Crossers, Warnings, Issued, Barricades, Rescues, Risking Lives, Save People, Yuma, Tri-City Landfill, Garbage Dump, Adjacent to River, Excuses, Salt River, Percolates Into Fetid Soup, Groundwater, Salt River Pima-Maricopa Indian Community, Scottsdale, Mesa, Arizona Department of Environmental Quality, Permits, Army Corps of Engineers, Gov. Symington, Sen. John McCain, Den. Dennis DeConcini, Upstream Dams, Arizona Congressional Delegation, Liquid Landfill, Dangerous, Disgusting, Eyesore, Clean-up |

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| 104 | January 17, 1993 | Release Was Unavoidable, Officials Say - SRP Unwilling to Risk Valley's Water Supply (& Graphs) | X | Salt River Project Managers, Open Spillways, Dams, Torrent, Phoenix, Releasing Water, SRP Spokesman John Egan, Hydrologist, Engineers, Two Storm Fronts, Collide, Arizona, Valley's Water-delivery System, Tempe, Flows, Salt, Steel Girders, Second Mill Avenue Bridge, Scaffolding, Newly Poured Arches, Tempe Deputy City Manager Gary Brown Storm, Bridge Collapsed, Upstream, River, Garbage, Tri-City Landfill, Mesa, National Weather Service, Rainfall, Slope the Releases, Bridge and Landfill, Valley Water Supply Cut Short, SRP's Emergency Operation Center, Verde and Salt Rivers, Flotation Monitors, Transmitting Radio Signals, Mountaintop Receiver, Hit Historic High, Verde System, Hydrologist Charlie Ester, None of Dams, Threatened, Water Level, Roosevelt Lake, Roosevelt Dam, SRP Spokeswoman Teri Morris |
| 124 | January 17, 1993 | Run River, Run - When the Water Starts Flowing in Arizona, You'd Better Believe it is Water with and Attitude (& Picture) | X | Arizona's Rivers and Washes, Rainstorms, Dry Washes, Low Dusty Beds, Runoff, Rillito River, Tucson, Snowmelt, Rain Water, Colorado, Waves, Bank, Damage, Sinkhole, Flooded, Storm, Swan Bridge, Bridge Support, Oak Creek, Washed Out, Los Abrigados Resort, Sedona, Wooden Footbridge, Debris, Creek, Little Colorado, Bushman Acres, Winslow, Salt River, Gilbert Road |
| 86 | January 18, 1993 | Strained Dams Threaten Record Water Releases | X | Valley Emergency Crews, Record Water Release, Reservoirs, Valley, Salt River Project, Water Flows, Low-lying Areas, Flood Danger, Salt River Project Watershed, Granite Reef Diversion Dam, Phoenix, 1980, Killed Four People, SRP, Bridges, Mill Avenue Bridge, Damaged, Flows, Tempe Officials, Spokeswoman Nachi Marquez, Incoming Storm, Salt River Project System, Darrell Johnson, SRP Manager of Water Resources, Granite Reef, Roosevelt Lake, Water, Threatened to Spill Over, Cofferdam, Built, Improve Roosevelt Dam, Overtopping, Increase lake Releases, Arizona, National Weather Service Meteorologist David Carpenter, High Pressure, Flood and Flash Flood Warning, Storm, phoenix Sky Harbor International Airport, Snow Level, Sandbags, Sand, Maricopa County Department of Transportation, Flood Control District, Warren Leek, Maricopa County Department of Emergency Management, Mary Ulch, Spokesperson, Central Arizona Chapter, American Red Cross, Assist Flood Victims, Holly Acres, Cashion, 115th Avenue, Additional Floods, Rain Continues, Woman, Swept Away, Gila, Highway 587, Sacaton, Department of Public Safety, Gila River Indian Community Emergency Operations Center, State Department of Transportation, Barricades, Highway, Interstate 10, Closed, Tri-City Landfill, Mill Avenue Bridge, Downstream Flooding, Old Mill Avenue Bridge, East Valley, Phoenix, Widespread Downstream Flooding, Sun Devil Stadium |
| 105 | January 18, 1993 | 13 Scottsdale Homes Look 'Like a Bomb Dropped' After Tornado (& Pictures & Map) | X | Valley Skies, Twisted Weather, Tornado, Damaged 13 Homes, Scottsdale, Falcon Field Officials, Second Funnel, Chandler, 64th Street, Cholla, 1972 Tornado, Same Area, Rural/Metro Fire Officials, Shea Boulevard, Matt Phillips, Rural/Metro Fire Department, Jen Jacques, 7800 Block of Desert Cove, Bill Jacques, Joan Spain, 50 Million Dust Devils, Bill Norred, Debris, Capt. Tim Cooper, Rural/Metro Firefighter, Strange Clouds, Real Black, Solid White in Them, Stacy Aguirre, Big Pop, Roar, Horrible Noise, Mary Ulch, Spokesperson, American Red Cross, Dee Holcomb, Dan Wilkens, Tree, Knocked Down |
| 35 | January 19, 1993 | Teen Girl Pulled from Raging Waters - Firemen Risk Swim Without Rescue Gear at N. Phoenix Park | X | Teen-ager, Barricade, Rain-swollen Retention Basin, North Phoenix Park, Firefighters, Heather Bartholomew, Cave Creek Park, Capt. Peter Lynch, Gary Lawrence, Mike Balesco, Capt. John Mure, Flooded Sidewalk, Water, Rushing, 8-foot Embankment, Battalion Chief Al Sipes, Cave Creek Wash, 25th Avenue, Cactus Road |

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| 90 | January 19, 1993 | Flood Fears Ease - Break in Storm Cuts water Releases (& Pictures) | X | Heavy Snow, Northern and Central Mountains, Rain Showers, Heavy Flooding, Salt River, Valley, Bob Berkovitz, National Weather Service, Low Pressure System, Heavy Rains, Rain-swollen Gila River, Salt River Project, Granite Reef Diversion Dam, Phoenix, SRP Spokesman John Egan, Mountain Rainfall, Storm, Salt and Verde Rivers, 1980, Wash Out, Bridges, National Weather Service, Reservoir System, Stanley Smith, Director, Maricopa County Flood Control District, State Department of Public Safety, Flagstaff, Mogollon Rim, DPS Officer Ann Stuckey, Route 260, Restricted, Payson, Heber, Rock Slides, Arizonans, Wettest January on Record, Funnel Clouds, Sgt. Kevin Lewis, Gila River Indian Reservation, Gila River, River Crossing, Downstream Debris, Swept Into Water, Bureau of Indian Affairs Spokesman Larry Rummel, Current, Prevented Divers, Pinal County Sheriff Office, Retrieving Woman, Presumed Dead, Gila, State Route 587, Diane Eckert, Breached Bridge, Gila River Flows, Ungated Spillways, Coolidge Dam, Bureau of Reclamation, Flood Workers, Heavy Releases, High Flows, San Pedro River, Winkelman, Kearney, Florence, Gila River Reservation, Monitoring, Washes, Teresa Rettenbush, Assistant Manager, Pinal County, Maricopa County, Flood-control Workers, Santa Cruz River, Southern Arizona, 100th Avenue, Protects, Flood-prone Holly Acres, Server Flooding, Laveen, Clogged Drainage Ditch, Baseline Road, 59th Avenue, Red Cross, Ron Schlosser, Pea-sized Hail, Phoenix Area, Tornado, King's Ranch, Apache Junction, Highway 60, Patagonia, Evacuated, Broken Sewer Line, Nogales, San Francisco River, Clifton, Chuo Chu, Papago Indian Reservation, Mike Englund, Sandbags, 129th and Southern Avenue, Irrigation Ditches, Charles Clark, Mitchell and Carl Adams, Lt. Jim Mann, Flood-watchers, 115th and Southern Avenue |
| 14 | January 20, 1993 | Fears About Dam Spur Water Release | X | Lake Pleasant, Double, Size, Rains, Lake's Untested Dam, Release Water, Agua Fria River, Runoff, Storms, Chuck Morfoot, Bureau of Reclamation, New Waddell Dam, Safety, Waddell Dam, Built, 1927, Irrigation District, New Dam, Storage Facility, Central Arizona Project, CAP Canal, Pumps Water, Central Arizona, Colorado River, Robert Herring, Maricopa County Parks and Recreation Department, Closure, Crossings, Northern Avenue, Rose Garden Lane |
| 15 | January 20, 1993 | Mesa Still Hauling City's Garbage to Flooded Dump | X | Ignoring, Court Order, Dumping, Flooded Tri-City Landfill, River's Edge, Washing Away, Mayor Willie Wong, Scottsdale Mayor Herb Drinkwater, City Council, Public Works Director Bruce Crandall, Salt River Indian Reservation, Mesa, Heavy Water Flows, Salt River, Salt River Pima-Maricopa Indian Community, No Toxic Wastes, Health Hazards, Don't Waste Arizona, Southwest Environmental Group, U.S. District Judge Earl Carroll, Temporary Restraining Order, Tempe, Mesa City Manager C.K. Luster, Queen Creek Landfill, Tempe Public Works Director Jim Jones, Waste Management Private Landfill |
| 23 | January 20, 1993 | Interstate 8 Lanes Closed (Picture) | X | Arizona Department of Public Safety, Chris Drumond, Santa Cruz River, Interstate 8, Eastbound, Closed, Highway 84, Thornton Road, Water, Flowing, Over Freeway |
| 39 | January 20, 1993 | Gas Line Explodes Under Gila River (& Map) | X | Natural Gas Line, Gila River, Exploded, Buckeye, Sky Harbor International Airport, Interstate 10, West Valley, Norma Dunn, El Paso Natural Gas Spokeswoman, River Flow, Damaged Gas Line, Gillespie Dam, Norm Cooper, Assistant Chief of Buckeye Fire Department, Static Electricity, High-voltage Power Lines, Floods, Gila River Currents, Broke High-pressure Gas Line, Massive Fireball, Thomas Somics, Buckeye Rural Fire Department, Willie Atkinson, Buckeye Police Dispatcher |
| 96 | January 20, 1993 | Arizona to Get Financial Help, Break From Rain - Flood Victims are Eligible to Receive Federal Funds (& Picture) | X | Danger, Valley Flooding, Swollen Rivers, President Bush, Arizona, Disaster Area, Federal Financial Aid, Federal Emergency Management Agency, Disaster Field Offices, Stanley Smith, Director, Maricopa County Flood Control District, Valley, Salt River, Damage, Communities of Stanfield and Maricopa, Swollen Santa Cruz, Chuichu, Casa Grande, Tucson, Gila River, Flood-control Workers, Flows, Gila and Salt Rivers, Holly Acres, Maricopa County, Monitoring, Levee, Salt River Project, Releases, Coolidge Dam, Ray Pettigrew, U.S. Bureau of Reclamation, Dan Galvin, State Department of Transportation, Bridge, Flood Waters, Wash Away, Approaches, Pinal County Sheriff's Office Body of Woman, State Route 587, Christine Eckhart, Alex Carrillo, James Skipperjosh, Rescued, Body of Sgt. Kevin Lewis, Gila River Indian Reservation, Wesley Hall, Glendale, Tonto Creek, Roosevelt Lake, Sgt. John Holmes, Gila County Sheriffs Office, Creek, Flowing, Winkelman, Surge, Low-lying Areas, The Flats, Mayor Arnold Ortiz, Floods of 1983, High Water, Strong Low Pressure System Over Pacific Northwest, Craig Ellis, National Weather Service Meteorologist, Record 14-day Run of Rain, Sky Harbor Airport, Old Record 1897, Wettest Winter Month, 5.22 Inches, Old Mark, 4.82 Set in March 1941, Wettest Month in Phoenix History, July 1911, 6.47 Inches, Lani Anderson, Sandbags |

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| 109 | January 20, 1993 | Santa Cruz River Breaks into CAP Canal - Portion of I-8 Detoured to 84 | X | Santa Cruz River, Broken Into, Central Arizona Project Canal, ChuiChu, Pouring Flood Water, Into System, Brian Betcher, District Engineer, Maricopa-Stanfield Irrigation and Drainage District, Santa Cruz Canal, Flooding, Thornton Road, Canals, Spilling Into Washes, Spillways, Laterals, Vekol Wash, Over Banks, Santa Cruz Wash, Greene's Wash, Interstate 8, Bianco Farm, Damage, Breech, Dumping Uncontrolled Water, Santa Rosa Wash, Department of Public Safety, I-8, State Route 84, Maricopa Schools Closed, Red Cross Evacuation Center, Pinal County Officials, Red Rock, Picacho, Eloy, Casa Grande West, Desert Carmel, Gila River Indian Community, Central Arizona Irrigation and Drainage District, Broken, Walt Schnoor, Largest Breech, Sunland Gin Road, Pretzer Road, Ed McGovock, U.S. Geological Survey, Tucson, Marana, U.S.G.S., Pinal County, Gila River Basin, Teresa Retterbush, Acting County Manager, Public Works, Coolidge Dam, Aravaipa, San Pedro Rivers, Flowing, Gila River, Department of Interior, Dam, Danger, Maricopa, Stanfield, Low-lying Area, Sandbags, Arizona City Fire Station, Roads, Bridges |
| 110 | January 20, 1993 | Bush Declares Flood Disaster - Missing Woman Found in Gila; BIA Policeman Unaccounted For | X | 14 Consecutive Days of Rain, President Bush, Declared Arizona Federal Disaster Area, Aid, Flood Victims, Arizona Gov. Fife Symington, Federal Flood Relief, Federal Emergency Management Agency, Low-interest Loans, Temporary Housing, Repair Roads, Bridges, Structures, Damaged by Floods, Public Facilities, Indian Property, Flows, Dam, Swamped, Winkelman, Flooded, Up to Rooftops, The Flats, Homeless, Spillways, Coolidge Dam, Bureau of Indian Affairs, 62-year Old Dam, Natural Gas Pipeline, Exploded, Gila River, Gillespie Dam, Arlington, Maricopa County Sheriff's Department Spokesman Jay Ellison, El Paso Natural Gas Pipeline, Underwater, Leaking Gas, Bubbling Up, Burning on Top of Water, Explosion, Granite Reef Diversion Dam, Phoenix, Salt River Project, SRP, Releases, Bridges, Death Toll, Two, 39-year Old Woman, Overflowing Gila River, Sacaton, Diane Eckert, Chandler, U.S. Highway 587, Prescott Man, Sleet-covered Highway 93, Kingman, BIA Policeman, Disappeared, Gila River Indian Reservation, Arizona, Rainfall Totaled 5.22 Inches, Previous Record 3.67, 1897 |
| 116 | January 20, 1993 | Pinal County Deluge After Record Rainfall (Pictures) | X | Flooding, High Water, Property Damage, Road Closures, Pinal County, Winkelman, Winkelman Flats, Heavy Flooding, Gila River, Homeless, Damage, Floodwaters, Casa Grande Valley, Trekell Road, Kortsen Road, Santa Cruz Wash, Anthony Macias, Leroy Angel, Cottonwood Lane, Morrison Avenue, Bridge, Kelvin Highway, Riverside, Bonnie Mariscal, Kearney, Threatened, New Airport, Under Water, Runway, Washed Away |
| 118 | January 22, 1993 | Gila, Santa Cruz Rivers Recede - Highways are Open; 5th Drowning Likely (& Picture & Map) | X | Floodwaters, Torrential Rain, Ravaged Stretches, Gila and Santa Cruz Rivers, Maricopa County, Riverbeds, Fifth Apparent Drowning Victim, Grand Canyon, Rockslide, Rain, Erosion, Phantom Ranch Lodge, Bottom, Closed, Natural-gas Explosion, Flames, South of Buckeye, First Explosion, El Paso Natural Gas, Gila, Ruptured the Line, Phoenix, Hector Chivera, Rock Springs, Agua Fria River, Cross on Horseback, Black Canyon City, Maricopa County Sheriff's Sgt, Jay Ellison, Gila River, 67th Avenue, Dennis D. Petinjak, Gila County, Wesley Hall, Glendale, Tonto Creek, Sgt. John Holmes, Gila River Indian Reservation, Police Sgt. Kevin Lewis, Disappeared, Gila River, Skousen Road Bridge, North of Sacaton, Diane Eckert, Chandler, Indian Route 587, Cochise County, Federal Disaster, The-President Bush, Mohave, LaPaz, Yuma Counties, Arizona, Colorado River, Painted Rock Reservoir, Gila Bend, Salt, Verde, Gila, Santa Cruz, Agua Fria Rivers, San Carlos Apache Reservation, Native American Groups, Federal-disaster Declaration, Navajo, Hopi Tribes, Karan Paulsen, Spokeswoman, Arizona Division of Emergency Management, Interstate 8, Casa Grande, Santa Cruz River, Interstate 10, I-10 |
| 119 | January 22, 1993 | 587 Homes Lost, Damaged by Floods | X | Federal Authorities, Disaster Relief, American Red Cross, 587 Homes, Damaged, Destroyed, Floods, Arizona, Gila County, Winkelman, Winkelman Flats, Coconino, Greenlee, Maricopa, Navajo, Pima, Pinal, Yavapai Counties, Arizona Public Service Co., KTVK-TV, Verdugo Hall, APS, Winkelman, Kearney, Riverside, Kelvin, Hayden, Dudleyville, Donations, Smith's Flood and Drug Centers, Globe, Camp Verde, Leupp, Winslow |

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| 50 | January 24, 1993 | Rains, Floods a Mess for Recreation Industry - Events Canceled, Revenues Cut by Poor Weather | X | Financial, Phoenix International Raceway, Buddy Jobe, Federal Disaster Money, Arizona, Sports-related Business, Rains, Flooding, Swollen Gila River, Shut Down, Road to the Track, Re-advertising Costs, 115th Avenue and Baseline Road, Pat Patterson, Manzanita Speedway, Postponements, Gary Witzel, Encanto Gold Course, Phoenix, Wet, Sloppy, Papago Golf Course, Tournament Players Club, Scottsdale, Phoenix Open, Rick Renick, Sunrise Park Resort, White Mountains, Tom Marsing, Operations Manager, Phoenix, Tucson, Flagstaff's Arizona Snow Bowl, General Manager J.R. Murphy, Snowfall, Mount Lemmon Ski Valley, Rain, Washed Away, Entrance, Access Road, Heavy Snowfall, Kelly Oby, Turf Paradise President Bob Walker, Phoenix Greyhound Park, General Manager Dan Luciano, Rain and Floods, Hurt Fishing, Bill Silvey, Fisheries Management, Arizona Game and Fish Department, Waters, Turbid, Cold, Phoenix Mountain Preserve, Randy Singh, Manager, Phoenix Parks Department, Erosion Problems, Echo Canyon Trail, Camelback Mountain, Papago Trails, Darion Gilbert, Manager South Mountain Park |
| 81 | January 24, 1993 | Past Lessons Failed to Avert Deaths, Damage | X | Arizona, Floods, Damaged, 600 Homes, Four Deaths, Higher 1983, 1980, Three Times, Deaths, Salt River, Most Water Recoded History, Flood-control Measures, Large Dams, Built, Salt River Project, Rainfall, Orme, Confluence, Salt and Verde Rivers, Northeast Mesa, Cliff Dam, Between Bartlett, Horseshoe Dams, Sen. John McCain, Gov. Fife Symington, Phoenix, Reduced, Flows, Valley, Former Gov. Jack Williams, Environmentalists, Federal Bureau of Reclamation, Inundated, Nesting Sites of Bald Eagles, Salt River Pima-Maricopa Indian Community, Tri-City Landfill, Most Damage, Protect, Valley 's Bridges, Tempe, Arizona's Congressional Delegation, Gail Peters, State Directors of American Rivers, Downstream, Old River Channels, Cut Deep, Desert, Rivers Shallow and Broad, Healthy Channel, Flood Plains, Don Gohmert, Conservationist, Developers, Sell, Property, U.S. Department of Agriculture's Soil Conservation Service, Smaller Levees, Runoff, Ground, Recharging Aquifers, 1970's, 71 Structures, Rural Arizona, Willcox, Southeastern Arizona, Chino Valley, North of Prescott, Kayenta, Navajo Indian Reservation, Dan Phillips, Supervisor, Water Resources, SRP, Storage Capacity, Six Reservoirs, Roosevelt, Apache, Saguaro, Canyon, Bartlett, Horseshoe, Storms, 1978 to '80, Verde River, Snowpack, Melted, Exceeding, Previous Record, March 1938, Four Peaks, Superstition Mountain Area, Flood-control Space, May 1988, SRP Reservoirs Full, 1991, Major Drought Cycle, Roosevelt Lake, Susan Fitzgerald, Public Information Officer, Maricopa County Flood Control District, Channelize, Brush, Trees, Salt River Bottom, 1991, Clearing Salt Cedar, Downstream to 91st Avenue, Levee for 113th Avenue to El Mirage Road, Holly Acres, Phoenix, Winslow, Levee Broke, Camp Verde, High Verde River Flows, Winkelman, Gila River Rampage, Losses, October 1983, February 1983, February 1980, 1983 Flood, 10 Inches Rain, Two Day Period, 14 Deaths, Homeless, Damage, Agriculture, Flood of 1980, Largest Amount of Water, Record History, Bridges, Crossing River, Central Avenue, Mill Avenue, Tempe |
| 82 | January 24, 1993 | Controversy Again Left by State Floods (Pictures) | X | Garbage, Salt River, Power of Floods, Bushes, Trees, Old Tires, 107th Avenue, Quality, Water, Flooding, Steel Drum, Mud, Bed of Salt, 35th Avenue, Glass Flask, Chunks of Polystyrene, Washed Up |
| 102 | January 24, 1993 | Firms, Workers, Count Losses, Return to Jobs | X | Raining, Hector Thomas, Landscaping Job, Mayo Clinic, North Scottsdale, Valley, Arizona, Drying Out, Damage, Worst Flooding, Construction, Agriculture, Recreation, Tourism, Mining, Affected by Heavy Storms, Rain, Larry Huber, Supervisor, Scottsdale, Shea and Pima Roads, Huge Puddles, Saturated, Steve Pisarcik, Vice President, Kitchell Contractors Inc., Phoenix, Tucson, John Drexler, Owner Ace Asphalt Co., Swollen Rivers, Streams, Washed Away, Farmland, Killed Cattle, Gila River Valley, Safford, Damaged by High Water, Mark Herrington, Solomon, Graham County, Soil, Farmers, Maricopa and Yuma Counties, Arizona Farm Bureau President Kenny Evans, lettuce, Cotton Growers, Winter Habitat, Insect Pests, Department of Agriculture, Flooding, Bas Aja, Director, Arizona Cattleman's Association, Santa Cruz River, Pinal County, Arizona Copper Mines, Flooding Rail Lines, Winkelman, Asarco Inc., Water Supply Tapped, Damaged Town's System, Dikes, Roads, Golf Courses, Washes and Floodplains, Boulders Golf Course, Arizona Biltmore Golf Course Superintendent Turner Reany, Jim, Austin, Spokesman, Pointe Hilton, Ron Searle, Cochise County, Helps Plant Species and Wildlife |

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| 16 | January 26, 1993 | EPA Called Landfill Safe Without Test - Official Contradicts and Earlier Report | X | Federal Officials, Flood-damaged, Tri-City Landfill, Environmental Protection Agency, Public Health, Environment, Dan Shane, EPA's Emergency Response Team, Eroding Banks, Dangerous, Water, Garbage Samples, David Schmidt, Testing Done, No Hazardous Materials, Leaking, Rain-swollen River, Dike, Eroded Landfill, Contamination, Binoculars, Construction Debris, Wood, Cardboard, Concrete, Protect, From Floodwaters, State Department of Environmental Quality, Betsy Westell, Manager, Department Solid Waste Unit, Water Samples, Downstream, Soil Samples, Hazardous Waste, Dilutes, Small Concentrations, EPA, U.S. Coast Guard's Pacific Strike Team, Oil and Hazardous Waste Problems, DEQ, Superfund Money, Salt River Pima-Maricopa Indian Community, Mesa, Scottsdale, Tempe, Environmentalists, Concerned, Believed Accepted Hazardous Waster During 1970's |
| 40 | January 26, 1993 | Letters - Orme Dam Needed | X | Warm Rains, Snowdrifts, Mogollon Rim, Flooding, Building Orme Dam, Flood Control Dam, Roosevelt Dam, Irrigation, Valley, Jack Williams |
| 41 | January 26, 1993 | Landfills Haunt Us | X | Trash, Salt River, Landfills, EPA, Build a Berm, Clean-up, Phoenix, Dale E. Poppe |
| 80 | January 30, 1993 | Get it Straight - Flood Water Not 'Released'; Dams Not for Flood Control (& Picture) | X | Valley, State, Threatened, Flood Water, Salt River Project Dams, SRP's Workers, Rain, Salt and Verde Rivers, Runoff, Water Storage Reservoirs, Granite Reef Dam, SRP Hydrologist, Granite Reef Diversion Dam, Salt River, Divert Water, Arizona Canal, Southern Canal, Irrigation, Purification Plants, More Water Flows, Divert, Spills, River Bed, Construction 1906, Salt River and Two Verde River Storage Dams, Hold Water, Hydroelectricity, Recreational, Water Conservation, Not Control Downstream Flooding, U.S. Bureau of Reclamation, SRP, Roosevelt Dam, 77 Feet, Added, Enlarge Dam, Preventing Floods, New Verde Dam Cliff, Environmental Group, New Verde Dam, Cliff, Watersheds, Valley, Reservoirs, Flooding, Open Flood Gates, Flow Out, Down Spillways, Operating Its Dams, Flood Water Pass Through, Not Usually or Normally Dry, Artificially Dar, Upstream Storage of Water, Salt River is a Live Stream |
| 18 | February 1, 1993 | Easy Targets - Tri-City Landfill and the Indians | X | Environmental, Salt River Pima-Maricopa Indian Community, Tri-City Landfill, Erosion, Salt River, Garbage, Washed Into, River, Downstream, Ivan Makil, President Indian Community, EPA Superfund Sites, Floods, U.S. Army Corps of Engineers, Environmental Protection Agency, Public Health, Construction Debris, Dumping, Flood Plain, Mesh Fence, On-site Inspections, Environmental Group, Dike, Environment, Unhealthy Materials, Leaching, Lawsuit, Mesa, Scottsdale, Tempe, Payment, Cleanup |
| 24 | February 1, 1993 | Rains Renew Worry Over Dam's Safety | X | Heavy Rains, Arizona, Filled, Reservoirs, Salt, Verde, Gila Rivers, Safety Coolidge Dam, John Newman, Operations Manager, Bureau of Reclamation, Phoenix Office, San Carlos Lake, Water Flowing, Dam's Spillage, Gila River, Valley, Bureau of Indian Affairs, Most Dangerous, United States, Dam's Abutment's and Spillways, Federal Dam Modification Program, Peak Discharge, Red Cross, 101 Residences Destroyed, Gila County, Winkelman Flats, Downstream, Central Arizona Water Conservation District, Roosevelt Dam, Flood Damage, |
| 7 | February 6, 1993 | Stopping the Floods | X | Floods, Salt River, Good Management, Water Resources, Salt River Project, 1978, 1980, 1993, Groundwater, Sandy Soil, Recharge, Salt River Bed, Mesa, Laws, In Place, Damage, Roads, Bridges, Homes, Water, Wasted, Valley, Electrical Power Users, SRP, James Seamans |
| 8 | February 6, 1993 | ASU, Mesa Schools Stop Using Landfill | X | Tri-City Landfill, Dump, Problems, Flooding, Washed, Garbage, Salt River, Trash, Landfill, Landscaping, Construction Debris, Mesa Unified School District, Arizona State University, Val Peterson, Director, Facilities Management, Waste Management, Solid-waste Disposal Company, Chuck Essigs, Assistant Superintendent, Scottsdale Memorial Hospital, Scottsdale Community College, BFI Waste Management Company, Jim Borowiak, Manager of Hospital's Housekeeping Services, Altea Long, Tree Trimmings, Dave Irwin, Cities of Tempe and Scottsdale, Maricopa County Flood Control District, Arizona Department of Transportation, Laidlaw Waste Systems, ASU, Mesa Schools, Filed Suit, Gilbert, Fountain Hills |
| 98 | February 7, 1993 | January Floods Speak of an Imbalance Between Man and Mother Earth (& Picture) | X | Valley Residents, Floods, Damage, Insurance Coverage, Emmett White, Destructive Waters, Powerful Stories, Old as Desert Rocks, January Floods, Great Flood, Fleeing People, Superstition Mountain, Elder Brother, Earth Medicineman, Coyote, Akimel O'odham People, Valley of the Sun, Gila River Indian Community, Dam, Six People Died, Coolidge Dam, Flooded Banks, Santa Cruz, San Tan, Sgt. Kevin Lewis, Bureau of Indian Affairs, Body, Sand Bar, River, River People, Descendants, Ancient Hohokams, Tohono O'odham, Desert People, Pima Maricopa Tribe, Gila River Indian Community, Florence, Sacaton, Instructor, St. Peters Indian Mission, Bapchule, Huge Irrigation Dams, Central, Squaw Peak, Mother Nature, Rain, Turned to Stone, Stone Figures, Legendary Deluge, American Indians, Earth, Wind, Fire, Water, Bridges, Skyscrapers, Joseph Enos, Gila River Arts and Crafts, Honor the Rivers, Salt River Pima-Maricopa Indian Community, Salt River, Torrential Rains |

| 0 | Year | Title of Newspaper Article | X | Key Words |
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| 19 | February 10, 1993 | Tribe's Full Control on Landfill Plans Worries the State | X | Salt River Pima-Maricopa Indian Community, Landfill, Polluting, Salt River, Dump, Federal Inspection, Environmental Protection Agency, No Jurisdiction, Jim Vreeland, Solid Waste Expert, EPA's, San Francisco, Congress, Revised Landfill Laws, Tri-City Landfill, Department of Environmental Quality, Steve Johnson, Assistant Director, House Environment Committee, Prohibit, Cities, Garbage Companies, Scottsdale, Mesa, Manager, Betsy Westell, Department Solid Waste, Tribe, Cheap Landfill Services, Scottsdale City Manager Dick Bowers, Ivan Makil, President Indian Community, Followed Guidelines, Planning, Construction, Operation, Private Engineers, Geologists |
| 97 | February 10, 1993 | Calamity for Crops - Floods Devastate Farms, Ranchlands (& Pictures) | X | Valley Residents, January's Floods, Arizona Farmers, Ranchers, Floods, Ruined Fields, Silt-filled Irrigation Ditches, Agricultural Impact, Phoenix, Keith Kelly, Arizona Department of Agriculture, Flood-ravaged Farms, Dairies, Gila River, Buckeye, Gary Gable, Blankets of Mud, Floodwaters, Gray, Brown, Arlington Canal Co., Swollen Painted Rock Reservoir, Chunks of Farmland, Washed Away, Buried in Silt, Floods Wrecked Havoc, Irrigation Systems, Pumping Capacity, Knocked Out, Mud, Debris, Arlington Irrigation System, Crop-dusters, Farm Equipment, Seed Companies, Flood Damage, 1980 Floods, Federal Agencies, Aid, Neal Hoffman, Liberty, Federal Agricultural Stabilization and Conservation Service, Farmers Home Administration, Small Business Administration, Channelization, Other Flood Control Measures, Environmental, Pollution, Wildlife Concerns, Jonathan Wilson, Supervisor, Western Maricopa County, Bad Farm Loans, 1970s, Criteria Tightened, John Kains, Program Specialist, Deny Help, Flooded Three Times Past 15 Years, Bud Calhoun, Jerry, Kathy Kerr, Burst Gillespie Dam, Extensive Damage, Beloat Road, Disaster |
| 10 | February 14, 1993 | Flood's Dangerous Legacy (Picture) | X | Medical Waste, Salt River, Flooding, Terry Heffner, Mike Nelson, Tri-City Landfill, John Godec, State Department of Environmental Quality |
| 117 | February 14, 1993 | SRP The Valley's Lifeline - Utility was Organized After Drought on 1890's (& Picture & Maps) | X | Salt River Project, 90-year Old Irrigation District, Electric Utility, General Manager Carroll M. Perkins, SRP, Supplies Water, Phoenix Area, Indian Practices, Irrigating Crops, Canals, Salt River, Drought, 1890s, Water Rights, Maricopa County Board of Trade, 1900, Proposed Dam, Create Reservoir, Phoenix, 1902, Congress, National Reclamation Act, Building Water Projects, Salt River Valley, Mountains, Snow, Plains, Distribution Canals, Farms, Landowners, Salt River Valley Water User's Association, February 1903, Collateral, Federal Government, Building a Dam, Roosevelt Dam, Construction, 1905, Completed in 1911, Three Smaller Storage Dams, Verde River, 1946, Hydroelectric Generators, Pay, Construction Debts, Depression, Arizona Legislature, 1937, Salt River Project Agricultural Improvement and Power District, Arizona Center for Law in the Public Interest, Acreage-based Voting, 1975 Lawsuit, U.S. Supreme Court 1981, Arizona Public Service Co., Power-plant, St. Johns, 1988, Palo Verde Nuclear Generating Station, Los Angeles Department of Water and Power, Make Roosevelt Dam Higher |
| 130 | February 14, 1993 | Arizona Underwater (& Pictures) | X | January's Floods, Arizonans, El Nino Weather System, Rain, Wet Winters, Monsoon Season, Hundred-year-flood Levels, Verde River, Thousand-year Mark, Floods, Build, Floodplains, Mexico, Winkelman Flats, Gila, Yuma Farmers, Waterlogged Fields, Damaged Crops, Channelize, Dam Arizona's Stream's and Rivers, Watercourses, Beavers, Largest Dams, I-10 Crossing, Beaver Pelts, 1830, Hohokam, O'odham (Pima, Papago), Irrigation Canals, Gila and Salt Rivers, Mineral-rich River, Impermeable Layer of Salt, United States Government, Surplus Wheat, Civil War, Safford, Florence, Built Dams, Laveen, Avondale, Antonio Azul, Washington, Ulysses S. Grant, Restoration of Water Rights, Relocate, Indian Territory, Oklahoma, Diverted, Waters, Miners, Cattle, Texas, 1890, 1892, Sufficient Water Supply, Decade-long Drought, Businessman A.J. Chandler, East Valley, Named, Theodore Roosevelt, National Reclamation Act of 1902, Bureau of Reclamation, Bureau of Land Management, Roosevelt Dam, Impounded Salt in 1912, Coolidge Dam, Gila, San Carlos Apache Reservation, 1960's, 11 Major Dams, Controlled Runoff, Mogollon Rim, Colorado, Arizona's Agricultural Interests, Central Arizona Project, Tucson, 1904, Gila Flooded, Early Melt of Snow, Yuma, Breach, Salton Sink, California's Salton Sea, Rains of 1983, Floodgates, Failed, Glen Canyon Dam, Hoover Dam, Davis Dam, Parker Dam, Imperial Dam, 1990, General Accounting Office, Collapse, Copper Basin Towns |
| 20 | February 15, 1993 | Under Siege (Pictures) | X | Gila River Floodwaters, Inundate House, Watermelon Road, Gila River Reservation, Storm Runoff, Lake, Painted Rock Dam, Gila Bend, Roosevelt Lake |

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| 66 | February 15, 1993 | Heavy Rains Replenishing Water Supply - Recent Storms are a Godsend for Arizona, Experts Say (& Picture) | X | Heavy Rainfall, Arizona, Filling Reservoirs, Recharging, Ground-water, Predicted Flow, State's Rivers, Ron Jones, Water-supply Specialist, U.S. Soil Conservation Service, Phoenix Office, Heavy Rains, Runoff, Heavy Snows, Hydrologists, Measuring Snows, Water Content, Subtropical Pacific System, Southwest, Baja California, West Coast, Sky Harbor International Airport, Meteorologist Hector Vasques, National Weather Service, Flagstaff, Salt River Project Spokeswoman Sandy Leander, Water Flowing, Granite Reef Diversion Dam, Downstream on the Salt, Water Merges, Runoff from the Gila and Agua Fria Rivers, Flows to Painted Rock Dam, Flood-control Structure, U.S. Army Corps of Engineers, Gila Bend, Maj. Robert Vanderlik, Deputy Commander, U.S. Army Corps of Engineers, Dam Constructed in 1963, Releasing Water, Communities of Wellton and Tacna, Yuma, Prevent, Damaging Crops, Watersheds, Drain, Salt River Basin, Verde River Basin, San Francisco-Upper Gila River Basin, Arizona State University's Palm Walk, Showers |
| 27 | February 16, 1993 | Ecological Method of Flood Control Offers Advantages | X | Stream Flooding, Destructive Actions of Floods, Positive Effects, Native Riparian Plants, Negative Effects, Flood Control Structures, Riparian Ecosystems, Floods, Natural Phenomena, Built, Dams, Impoundments, Channelized Rivers, Tame Small Floods, Home Building, Development, Flood Plains, Dammed, Regulated Rivers, Gila River, Floods, Establishment, New Cottonwood, Willow Forests, Native Desert Fishes, Salt Cedar, Desert Rivers, Flush Toxins, Flood-plain Soils, Deposit Nutrients, Plant Growth, Burrow Brush, Arrowweed Shrubs, Screwbean, Velvet Mesquite Trees, Watershed, Instream Flows, Flash Flood Watersheds |
| 58 | February 23, 1993 | Bracing for More Floods - Earthen Dam in Canyon Gives Way (& Pictures & Map) | X | Floodwaters, Northern Arizona, Earthen Dam, Grand Canyon, Eroded, Water, Cascading, Indian Village, Lower Gila River, Yuma, Prepare Evacuation, Supai Village, Bob McNichols, Natural Resources Officer, Truxton Canyon Agency, Bureau of Indian Affairs, Spillway, Painted Rock Dam, Col. Robert VanAntwerp, District Engineer, Los Angeles Office, Army Corps of Engineers, Dan's Outlet Gates, Regulated, Downstream, Inundation, Evacuation, Colorado River, Jim Myrtetus, Public-affairs Officer, Recent Storms, Rain, Levee Protection, Avenue 38E Bridge, Ross and Tacna, Yuma County, Storm, Mogollon Rim, Flagstaff, Sedona, Camp Verde, Cottonwood, Clarkdale, Page Springs, Cornville, Verde River, Sedona Police Chief Bob Irish, Flash Flood, American Red Cross, Verde Rural Fire Department, Emergency Assistance, Arizona 89A, Closed, Rainwater Roaring Down Oak Creek Canyon, Rock Slides, Mudslides, Rampaging Waters, Inundated Sycamore Cove, Oak Creek Island Community, Mobil Homes, High Water, Broken Water Main, Fairfield Continental Subdivision, Police Chief Dennis Connell, Boil Drinking Water, Dayna Nelson, Interstate 40, Country Club Road, 5 to 7 Feet Water, Soggy Days, Salt River Project, Scott Harrelson, Granite Reef Diversion Dam, Salt River, Reservoir, Salt and Verde Rivers, Gila Bend, Pacific Disturbance, Arizona, Mike Franjevic, National Weather Service, Windy, Showers, Mountain Snow, Cold Storms, Tropical Moisture, Melting Snow, Runoff |
| 107 | February 23, 1993 | Farmers Move Out as Gila Rises - Flood Sparks Fears of Financial Ruin (& Map) | X | Farmers, Gila River, East of Yuma, Underwater, Washing Away, Record Floods, Repair Flood-damaged Land, Irrigation Systems, Marvin Marlatt, Wellton, Tacna, Roll, Dome, Fighting River, 1959, U.S. Army Corps of Engineers, Built painted Rock Dam, Water, Flowing Over Emergency Spillway, Dam, Gila River, Gila Bend, Flood-control Structure, Holds Runoff, Verde and Salt Rivers, Southwest Phoenix, Heavy rains, Flow Increased, Massive Weekend Storm, Flagstaff, Sedona, Cottonwood, Maj. Robert van der Like, Moisture, Rain Showers, Lower Elevations, Melting Snow, Flood All Bridges, U.S. 95, Interstate 8 North, Quartzsite, Cross Into California, Arizona, Henry Green. Yuma County Emergency Services Office, Robert Nickerson, Alfalfa, Wheat, Lettuce, Broccoli, Cauliflower, Evacuating, Damage, Wheat, Onion, Radish Seed Crop and Alfalfa |
| 55 | February 24, 1993 | Farmers Rush to Avoid Gila's Wrath - Woman's Family Prepares for Flood 66 Years After Decedents Did (& Picture) | X | Roll, Shirley Murdock, Gila River Valley, Ed Linden, Roll Post Office, 1927, Water Up to His Knees, Farmland, Water, Pour Down the Gila, Irrigation System, Losing, Crops, Avenue 38E Bridge, Yuma, John Klingenberg, Surging Water |

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| 126 | February 24, 1993 | Prices Rising with Flood - Yuma County Braces for Big Losses, Evacuations Pick Up (& Pictures & Map) | X | Gila River, Flooding, Yuma County, Vegetable Prices, Evacuations, Lowlands, Water, Down Gila from Painted Rock Dam, Federal Dam Officials, Raised, Prediction, Fresh Express, Damage, Bruce Church Inc. Move Operation, Salinas, Calif., Plant Manager Bryan Aguirre, Yuma, Seasonal Farm-worker Jobs, Lost, Floods Ruin Crops, Don Howell, Yuma County Agricultural Agent, Arizona Cooperative Extension, Most Winter Lettuce, United States, Keith Kelly, Director, Arizona Department of Agriculture, Mark Wilcox, UA Extension Agent, Harvest, California, Willie Itule, Willie Itule Produce Co., Phoenix, Tom Nines Jr., Vice President, Nunes Co. Inc., Yuma County Sheriff Ralph Ogden, Mohawk-Wellton Valley, Saturated, Reservoir, Rainy, Painted Rock Reservoir, Gila and Verde River System, Herb Guenther, Spokesman, Mohawk-Wellton Irrigation and Drainage District, Army Corps of Engineers, Bob Woodhouse, Farmer, Tacna, Rising River Encroaches, Family Home, Gila Bend, U.S. 95, Murdock Farm, Roll, Shirley Murdock |
| 73 | February 27, 1993 | Yuma County Farms Could Be Flooded a Month - Officials Believe Up to 3,500 May have Been Evacuated (& Picture) | X | Yuma County, Farm Belt, Under Water, Gila River, Full Flood, Painted Rock Dam, Releases, Bridges, Flood Control Structures, Colorado River, Increased Flows, Fields, Homes, Army Corps of Engineers, Col. Robert Van Antwerp, Record Rainfall, Flooding Downstream, Evacuate, Lt. Lewis Wilbur, Yuma County Sheriffs Office, Wellton-Mohawk Valley Area, Flood Plain, 4 Miles Wide, Inundated, Agriculture Land, Threatens, Gila River Bridges, Closed, Structural Damage, Wash Downstream, Dynamite, Tamarisk Trees Lining River, Pulverize Trees, Uproot, Float Downstream, Southern Pacific Railroad Bridge, Roll, Railroad Spokeswoman Carolynne Born, Rocks, Shore Up Bridge, Amtrak Passenger Train, Painted Rock Reservoir, Gila Bend, Filthy Lake, Fred Burkhardt Jr., Emergency Services Director, Town of Gila Bend, Sewage Treatment Plants, Treated with Chlorine, Discharged, Garbage, Tri-City Landfill, Salt River, Pima, Maricopa Indian Reservation, Scottsdale, Eroded Floodwaters, Cattle, Livestock, Higher Ground |
| 74 | February 27, 1993 | Lettuce Prices Soar in Nation | X | Flooding, Gila River, Farm Belt, Framers, Salvage, Crops, Gary Pasquinelli, Pasquinelli Produce Company, 1945, High Prices, Inferior Product, Yuma County, Gary Lucier, Agricultural Economist, U.S. Department of Agriculture, Washington, D.C., Disaster |
| 12 | March 1, 1993 | Water Flow From Dam May Have Peaked - Flooding Could Worsen on Gila; 1 Bridge Open | X | Bridge, Lower Gila River, Water, Overflowing Reservoir, Flow, Spillway, Painted Rock Dam, Army Corps of Engineers, Dry River, Winter Rain, Snow, Southwestern Arizona, U.S. 95 Bridge, Yuma, Bart Freeman, State Emergency Services Official, Colorado River, Jim Lafrenaye, Phoenix, Flooding, Hank Green, Yuma County Emergency Services Director, Damage, Mohawk Valley, Gila River Valley, Dam, Crop |
| 127 | March 2, 1993 | Yuma Flooding Turns Deadly, Worker Drowns - Fast-moving River Puts 20,000 Acres Under Water (& Picture) | X | Gila River, Inundated, 20,000 Acres, Fertile Farmland, Lower Gila, Wellton Area Man, Died, Canal, Mohawk-Wellton Irrigation and Drainage District, Clyde Gould, Manager, Water District, Hank Green, Yuma County Emergency Services Director, Lettuce Prices, U.S. Army Corps of Engineers, Painted Rock Dam, Releases, Roll, Wellton, Dam, Reservoir, Roosevelt Lake, Flood, Closed, Bridges, Lower Gila, Interstate 8, U.S. 95, Clogged, Narrow, Imperial County Calif. Road, Colorado River, Arizona, Southern Pacific Railroad, Arizona Army National Guard, Sgt. Roy Ruiz, Tempe, Dallas Moser, Store, Bridges Closed, Joe Rider, Federal Farmers' Home Administration, Loan, Start Over, Shawn Fuehrer, Vista del Camino Park, Scottsdale, Heavy Rains |
| 56 | March 4, 1993 | Rampaging River Forces Shutdown of Pumping Plant - Water to Unaffected Fields, Homes Cut off (& Picture) | X | Wellton, Flooding, Pumping Plant, Cutting Off Irrigation, Gila River, Colorado River, Wellton-Mohawk Irrigation and Drainage District, Relieve Flooding Pressure, Yuma, C.L. Gould, Options, Building Dam, Dike, Dry River, Delivery System, High River Water Surface, Canal, Danger, Dike Problem, Breaks, Levee Work, Farmer David Sharp, Roll, District is Shut Down, Domestic Water, Municipal Water, Farmers, Bottled Water, Irrigation, Home Plumbing, Washing, Bathing, Muddy Brown Water, Gila's Out-of-control 90-mile Run, Painted Rock Dam to Colorado River, Trailer Parks, Colorado Riverbank, Leave, Homes, Yuma County Sheriff's Lt. Lewis Wilbur, Irrigation District, 75 Percent of Nations Iceberg Lettuce, Herb Guenther, District Assistant Manager, Fields Underwater, County Officials, Damage Tallies, Partially Submerged, River Churns, Spills, Ruined Dikes, Flows, Storm-fed Reservoir, Destruction, Downstream, Miners Camp, Mexicali, Baja California and Norte, Evacuate Homes, Mexicali Valley, Floodwaters, Inundating Lettuce Fields, Unflooded Fields |
| 34 | March 5, 1993 | Gila River Crests, But Fields to Remain Flooded - Up to 50 Homes Sustain Damage (& Picture) | X | Wellton, Flood, Southwestern Arizona, Peaked, Gila River, George Humphrey, Yuma County, Acting Emergency Management Director, Produce-rich Area, Flooded Fields, Bridge Closures, One Death, Truck Driver, Irrigation Canal, Roll, Hyder, Dome, Painted Rock Dam, Colorado River, National Weather Service, Flow, Wellton-Mohawk Irrigation and Drainage District, Farmland, Flooding, Washed Out, 80 Grade-level Crossings, Northern Part of County, Interstate 8, Army Corps of Engineers, Avenue 7E Bridge |

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| 2 | March 12, 1993 | Flood Considered Worst of Century | X | U.S. Geological Survey, Floods, Arizona, "Floods in Arizona, January 1993", Compiled, Waterflow Recordings Timely Data, Water Releases, State Dams, Water Volume, Rillito Creek, Verde, Little Colorado and Gila Rivers, Three Times as Large, Chance in 100 |
| 3 | March 12, 1993 | Notebook - Environment - 40,000 Are Expected for Volunteer Cleanup | X | 40,000 Valley Residents, Volunteer, Bag-a-thon, Moon Valley Park, Cave Creek Wash, Phoenix Clean and Beautiful, First Brands Corp. |
| 38 | March 27, 1993 | City, State to Weigh River Safety - Drownings Underscore Dangers | X | Three Deaths, Swollen Salt River, Tempe, Waterway's Power, Canoe Expedition, Dr. James Wilson, Dr. Finis Taylor, Downstream, Flood Control Hydraulic, 15-feet Deep, Powerful Undertow, Arizona Department of Transportation, Maricopa County Flood Control District, Dangers, River, Tempe City Attorney Dave Merkel, Jim Phipps, Public Information Officer, Modifying Structure, Safer Alternatives, Warning Signs, Alma School Road, Brian Trenary, Drowned, Country Club Drive, Mesa, Hayden Road, Hayden Road Bridge, Velocity, Turbulence, Eddying, Flow Rate, Concrete Structure, Violent, Swirling Undertow, Narrowed, Construction Project, ADOT, Rio Salado Channelization |
| 30 | April 6, 1993 | Improve PIR Access | X | Phoenix International Raceway, Mr. and Mrs. Buddy Jobe, Mr. and Mrs. Tim Duke, Pro-Formance Racing, Chandler, PIR, Mesa, Tempe, Flooding, Verde River, Eroded, Parking Track, Estrella Parkway, NASCAR Winston Cup Series, Valley, Maricopa County Board of Supervisors, Road and Bridge, John Dick |
| 76 | May 10, 1993 | Reclaiming the Habitat - Volunteers to Tackle Cleanup of Flood-ravaged Areas (& Picture & Map) | X | Gila River, Phoenix, Forests of Salt Cedar, Reeds, Willows, Falcons, Endangered Yuma Clapper Rails, Other Wildlife, River Habitat, Phoenix's Sewage Treatment Plant, 91st Avenue, Record Flooding, Damage, Vegetation, Lost Destroyed, Raging Waters, Gigantic Spaghetti Strainer, Tons of Garbage, Debris, Washed From Upstream Landfill, State Game and Fish Department, Cleanup, Federal Emergency Management Agency, Garbage Covers 150 Feet Wide, 200 Feet Long, 8 Feet Deep, Lisa Anderson, Environmental Compliance Specialist, Construction Debris, Hazard, Cost, FEMA, State, Other Sources, Gila, Salt River, Tri-City Landfill, East of Mesa, Salt River Pima, Maricopa Indian Community, Washed Out, Floodwaters, Planning, Cleanup, Valley, 107th Avenue, Rick Elder, Salt River Project Manager, Great Salt River Cleanup, 22,000 Volunteers, Pick Up Trash, Old Tires, Other Debris, Riverbanks, Hazardous Waste, Inmates, Arizona State Prison, Central Avenue, Mesa Community College, Arizona State University Parking Lot, Wesley Bolin Plaza, Phoenix Goodyear Municipal Airport, Bused, Granite Reef Diversion Dam, Dysart Road, River, Quarter Mile Sections, Garbage Bags, Gloves, Gila River Riparian Areas, 91st and 115th Avenues, Dumping Ground |
| 37 | May 12, 1993 | Victims Weren't Reckless | X | Finis Taylor, Jim Wilson, Lost Lives, Canoeist, Salt River, Tempe, Dangerous, Safe Level, Country Club Drive, Upcoming Hydraulic, Boy Scout Leaders, Mary Benin |
| 1 | May 23, 1993 | 19,500 Volunteers Clear Salt River of Flood Trash (& Picture) | X | DeeAnn Daily, Avondale Office Worker, Volunteer, Environmental, Cleanup, U.S. History, Tamarisk Tree, Salt River Channel, Phoenix International Raceway, Next Flood, Wash It Up, Trash, 39 Miles, Salt Below Granite Reef Diversion Dam, Great Salt River Cleanup Day, 12,653 Bags of Trash, 127 Tons, En Route, Landfill, Mobile, Gov. Fife Symington, Arkansas, Greer Ferry, Heavy Rains, February, Flooded, Valley, Western Arizona, Mountains of Garbage, Tri-City Landfill, Salt River Pima-Maricopa Indian Community, Debris, Tires, Removed, Phoenix Municipal, U.S. Forest Service Employees, State-prison Inmates, Cliff Staley, Glendale Real-estate Agent, Ried Horton, Glendale Student, Bridge, River, Washed Down River, Bartlett Lake |
| 33 | August 26, 1993 | Storm Gives Valley Change for a 100 - Record Heat Streak Ends at 76 Days (& Graph) | X | Heavy Cloud Cover, Tropical Storm, Break Longest Hot Streak, 76 Consecutive Days, 100 Degrees, Old Record 1989, Forecasters, Bob Berkovitz, National Weather Service, Phoenix, Sky Harbor International Airport, 1963, Showers, Sky harbor, Tropical Storm Irwin, Mexico, Tropical Storm Hillary, Troublesome, Arizona, Yuma, Baja Peninsula, Gulf of California, Heavy Rain, Thunderstorms |
| 132 | November 26, 1993 | Flood Plain Queried - Study to Look at Ways to Get Rid of Status | X | Study, Underway, 565 Phoenix Homes, Designated Flood Plain, Status, 10th Street Wash, 10th Street, Griswold Road to Cheryl Drive, Maricopa County Flood Control District, Jim Phipps Spokesman, North Mountain Village Committee, Daniel, Mann, Johnson, and Mendenhall, Engineering and Architectural Firm, Phoenix, Flood Insurance Map, Delineated, 100-year Flood Plain, Six Alternatives, Basins, Natural Wash, Betty Bellanger, Flooded Out |
| 142 | January 17, 1994 | The Flood that Stayed and Stayed - This Nightmare of 18 Months May Haunt Woman for Years (& Picture) | X | Diana Arbuckle, Water Damage, Home, Grand Canal, Heavy Rains, Flooded, Sunset Drive, 64th Drive, July 1992, Flood-prevention Project, Maricopa County Flood Control District, Phoenix, Studying, County Board of Supervisors, Neil Erwin, Chief Engineer and General Manager of Flood Control District, and Three Other Areas, 43rd Avenue and Burgess Lane, 10th Street Wash, 47th Drive and Crittenden Drive |

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| 131 | February 1, 1994 | The Village Alliance Voice of Sunnyslope - Maricopa County Begins Study of 10th Street Wash | X | Maricopa County Flood Control District, North Mountain Village Planning Committee, Study, Flood Control Measures, 10th Street Wash, SVA Members Dave Longey, Winn Green, Public Workshops in 1992, Sunnyslope Planning and Design Study Report of 1993, County Supervisor Betsy Bayless, City Councilman Craig Triken's Office, Hemant Patel, Citizens Advisory Committee, New Northtown Neighborhood |
| 138 | February 23, 1994 | Residents Seek Larger Role in Planning Wash | X | North Phoenix Residents, Maricopa County Flood Control District, 10th Street Wash, North Mountain Village Planning Committee, Acquiring Property, Design Process, 565 Homes, Designated, Flood Plain, 10th Street Wash, 50-100 Foot Wide Area, 10th Street, Griswold Road to Cheryl Drive, Get Rid Of, Flood Plain Designation, Michael Lopez, Project Manager, Detention Basins, Committee Member Jeff Shumway, Purchase Right-of-way, Dave Longey, Sunnyslope Village Alliance, Arizona Canal Diversion Channel, Design of Wash, Improvements |
| 141 | February 23, 1994 | Public Input Sought on Flood Plan - Residents Want Work on Design Slowed | X | North Phoenix Residents, Maricopa County Flood Control District, 10th Street Wash, North Mountain Village Planning Committee, Acquiring Property, Design Process, 565 Homes, Designated, Flood Plain, 10th Street Wash, 50-100 Foot Wide Area, 10th Street Wash, 50-100 Foot Wide Area, 10th Street, Griswold Road to Cheryl Drive, Michael Lopez, Project Manager, North Mountain Village Planning Committee, Committee Member Jeff Shumway, Dave Longey, Sunnyslope Village Alliance, Redraw Size of Wash, Arizona Canal Diversion Channel |
| 137 | March 2, 1994 | Wash Improvement in Works - County, Citizens Plan Design Together | X | 10th Street Wash, Maricopa County Flood Control District, Improvements, Lessen Floods, Natural Ditch, Rainwater, Phoenix Mountains, Arizona Canal Diversion Channel, Source of Friction, Cleaning Debris, Overgrown Vegetation, Mandated Flood Plain Insurance, 10th Street, Griswold Road to Cheryl Drive, Sunnyslope Resident Dave Longey, Sunnyslope Village Alliance, Detention basins, Trap Rainwater, North Mountain Village Planning Committee, Michael Lopez, Project Manager, Ideas, Making Wash Deeper, Wider, Creating Dams |
| 143 | April 1, 1994 | 11-Acre Flood Bain to be Built - 27 North-central Homes to be Razed | X | Twenty-seven Homes, North-central Phoenix, Maricopa County Flood Control District, 11-acre Flood Basin, 10th Street and Alice Avenue, Lowered 8 Feet, Sunnyslope Residents, Reduce Flooding, 10th Street Wash, Natural Ditch, Carries Rainwater, phoenix Mountains, 565 Homes Designated, 10th Street, Griswold Road to Cheryl Drive, Flood Control Project Manager Michael Lopez, Alice Avenue Basin, Cheryl Drive and Cave Creek Road, Flood Plain Insurance, Joe Kellwood, Rainstorms, Bobie King, Dave Longey, Valley, Phoenix, Ed Huffman, Giant Dusty Pit |
| 145 | May 4, 1994 | Sunnyslope Homes Will Fall to Bulldozer | X | Mike Barr's Store, Dunlap and Townley, City of Phoenix, County Flood Control, Corps of Engineers, 10th Street Wash, 100 Year Old Flood, Sunnyslope, Acquisition of Property, Alice Avenue, Cave Creek Road, Trailer Park, Parks and Recreation, Flooded Wash, Butler Drive |
| 139 | August 19, 1994 | Citizens Study Fate of Wash - Panel Helps Design 10th St. Drainage | X | Homeowners, 10th Street Wash, Maricopa County Flood Control District, Design Changes, 10th Street, North-central phoenix, Flooding, Tropical Storms, 100-year Storm, Downpour, Federal Government, Flood Plain Designation, 565 Buildings, Storm-water Run Off, Phoenix Mountains to Arizona Canal Diversion Channel, Funding, 10th Street Wash Improvements, 19 Feet Wide, 5 Feet Deep, Banks Landscaped, Natural Look, Forgo Concrete Lining, Wider Wash |
| 140 | August 24, 1994 | Residents Help Chart Drainage Changes | X | Homeowners, 10th Street Wash, Maricopa County Flood Control District, Design Changes, 10th Street, North-central Phoenix, Flooding, Tropical Storms, 100-year Storm, Downpour, Federal Government, Flood Plain Designation, 565 Buildings, Storm-water Run Off, Phoenix Mountains to Arizona Canal Diversion Channel, Skunk Creek, West Valley, Winifred Green, Sunnyslope Village Alliance, Funding, Dave Longey, Michael Lopez, Project Manager, Several Designs, 19 Feet Wide, 5 Feet Deep, Lining Fenced Off, Banks Landscaped |
| 144 | December 9, 1994 | 10th Street Wash Improvements in the Wind | X | 10th Street wash, Flooding, North-central Phoenix, Natural Drainage, Phoenix Mountains, Arizona Canal Diversion Channel, Maricopa County Flood Control District, Michael Lopez, Project Manager, Sunnyslope Residents, 19 Feet Wide, 5 Feet Deep, Banks, Landscaped, Wider Wash, James Phipps, Spokesman for the District, Federal Government, Improvements, Reduce, Designated Flood Plain |
| 13 | March 12, 2003 | Landfill Supplying Salt River Garbage to be Moved - 344 Tons of Trash Removed for Area; Cleanup Efforts Successful, Director Says (& Picture) | X | Tempe, Cleanup, Garbage-strewn Banks, Salt River, Landfill, Problems, Jim Jones, Tempe Public Works Director, 344 Tons of Garbage, Hazardous Waste, Medical Waste, Tempe Fire Department, BFI Inc., Waste Disposal Company, Butterfield Landfill, Waste Management Company, Reimbursement, Federal Emergency Management Agency, White Mountains, Yuma, Disaster Area, Flood, Landfill Waste Problems, Phoenix, Heavy Winter Rains, Salt River Project, Release Water, Upstream Dams, Tri-City Landfill, McDowell Road, Beeline Highway, Salt River Pima-Maricopa Indian Reservation, Closure, Garbage Dump, Mesa, Scottsdale, Frank Mertley, Community Manager, Indian Enclave, Gilbert Road, Arizona Canal, 100-year Flood Plain, Environmental Protection Agency Regulation, EPA, Hard Bank, Flows, Melting Snow, SRP, John Egan, Eastern Arizona |

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| 9 | Undated 01, 1993 | Blame for Gila Flooding Countered | X | Environmentalists, State Biologists, Farmers, Flooded, Gila River, Federal Government, Buy Out, Wellton-Mohawk Irrigation and Drainage District, Environmentally Destructive Operation, Dick Todd, State Game and Fish Department Biologist, Yuma Clapper Rail, Gila River Farmers, Lack of Adequate Flood Control, Protect Bird, Cost Effective, Painted Rock Dam, Gila Bend, 300 Miles of Canals, Colorado River Water, Imperial Dam, Drainage Channels, Wells, Salty Irrigation Water, Desalination Plant, Yuma, Water Quality, Boarder to Mexico, Farmland, Edge of Channel, Rory Aikens, Anne Cannon, Army Corps of Engineers, Channelization Project, Floods, 1983, July 1984 Environmental Assessment, Bureau of Reclamation, U.S. Fish and Wildlife Service, Harold Pritchette, Assistant Project Manager, 1989, Wellton Portion, Heavy Rains |
| 21 | Undated 01, 1993 | Letters - Flooding Reminds Us We Can Never Truly Control Water | X | Arizona Underwater, Gregory McNamee, Sunday Perspective Section, January Flood, Upstream Causes, Floods, Downstream Effects, Dams, Irrigation, Water, Landfills, Plumbing Systems, Build, Rushing Torrents, Flood Plain, Glen Canyon Falls, Roosevelt, Salt, Dismantle Dams, Ron Harris |
| 22 | Undated 01, 1993 | SRP Deserves Praise, Not Flood of Innuendos and Half-Truths | X | Salt River Project, Storm, Problems, Forecasting, Measuring, Notification, Valley, Flood-Control System, Water Storage, Distribution System, James O. Seamans, Phoenix, 1980, Damage, Groundwater Recharge, Buckeye, Lake, Ronald T. Wheat |
| 25 | Undated 01, 1993 | Storms Wash Out Forest Roads, Trails - Early Tonto Damage Estimate Hits $5 Million | X | Heavy Winter Rains, Flood Damage, Roads, Trails, Campgrounds, Tonto National Forest, Larry Soehlig, U.S. Forest Service, Joyce Hassell, Flood-eligible Repairs, Fences, Roads, Culverts, Stock Ponds, Ineligible, Emergency Federal Money, Pioneer Pass, Globe, Submerged Logs, Debris, Salt and Verde Rivers Lakes, Heavy Stream Runoff |
| 26 | Undated 01, 1993 | Melting Snow Poses New Threat on Gila - Warmer Days May Yield Heavy Runoff | X | Melting Snow, Mountains, Northeast Phoenix, Farmers, Gila River's Flooded Wellton-Mohawk Valley, Yuma, Heavy Runoff, Melting Mountain Snow, Heavy Rains, Shutdown, Pumping Plants, Irrigation, Household Water, Flooded, Farms and Homes, Driver Killed, Canal, Wellton-Mohawk Irrigation and Drainage District, Crops, Fields, Roads, Canals, Irrigation Systems, Herb Guenther, District Assistant Manager, Berta Woodhouse, Roll, Farmer Marvin Marlatt, Painted Rock Dam, Gila River, Jim Lafrenaye, Emergency Operations Center Director, U.S. Corps of Engineers, Phoenix Office, Salt River Project, Salt and Verde Rivers, Snow Runoff, Scott Harleson, Arizona's Mountains, Ron Jones, Water-supply Specialist, U.S. Soil Conservation Service, Mount Agassiz, Flagstaff, Gila Bend |
| 28 | Undated 01, 1993 | Trash Bills to Rise if Landfill Closes | X | Trash-pickup Fees, Mesa, Tri-City Landfill, City Council, House Bill, Lawsuit, Close, Landfill, Queen Creek Landfill, Sky Harbor Transfer Station, Waste Management |
| 29 | Undated 01, 1993 | SRP Pledges $25,000 to Salt River Cleanup | X | Salt River Project, Great Salt River Cleanup, Mesa to Avondale, SRP $25,000 Cash, Tri-City Landfill |

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# INDEX OF NEWSPAPER CLIPPINGS

FLOODING OF JAN. 1993

| DATE | PUBLISHER | TITLE OF ARTICLE |
|---|---|---|
| 1-9-93 | Phoenix Gazette | Salt threatens to swamp homes in low-lying areas |
| " | " | Landfill's contents may flow down Salt |
| " | " | Earlier floods created grief for motorists, homeowners |
| " | " | Water pours out of Roosevelt Dam (photo & caption) |
| | | Surging water ripped scaffolding from half-completed Mill Ave Bridge (photo & caption) |
| " | " | Once again river threatens to wash away family's home |
| " | " | Water rips scaffolding from bridge |
| " | " | Valley River Crossings (map) |
| " | Arizona Republic | Arizona inundation old story |
| " | " | Waster flows into waters from sewage, landfill |
| " | " | Unfinished spans prove no match for fury of Salt |
| " | " | Woman clings to tree in creek |
| " | " | Valley Floodplains (map & photo) |
| " | " | Saturated soil adds to river flows |
| | | Central Arizona Dams, Rivers, and Canals (map) |
| " | " | Evacuation is 5th in 15 years for one district |
| | | How water flow is measured |
| " | " | Garbage slides into Salt River |
| " | Tempe Tribune | Floods often tested valley's preparedness/ A history of floods |
| 1-10-93 | Arizona Republic | Flooding will leave cesspools |
| " | " | In parts of Tucson, flood-isolated homes just a copter hop away |
| " | " | Water shows it's tougher than memory (editorial) |
| " | " | Floods to have little effect on crops, officials say |
| " | " | Sad memory of '83 flood won't wash away |
| " | " | Winslow, Navajo areas flooded - 400 evacuated |
| " | " | Arizona braces for more rain, flooding |
| " | Tempe Tribune | Emergency duty had a familiar ring |
| " | " | Rainy days not over yet |
| " | " | Planned dams could have eased valley flooding |
| " | " | Damage noted as fresh storm targets valley |
| 1-11-93 | Phoenix Gazette | Flood control measures work fantastically in first major test |
| " | " | Valley gets break in rain, flooding |
| " | Arizona Republic | Flood insurance: System keeps valley above water (map) |
| " | " | Homeowners' policies offer varied protection |
| " | " | Golfers and 'snowbirds' holed up by rain, floods |
| " | " | Rain covers soggy state, more is due |
| 1-12-93 | Phoenix Gazette | For flooded Winkleman, the worst is yet to come |
| " | " | Canyon grandeur can't displace sight of sludge in Salt |
| " | " | Dumping ground of excuses |
| " | " | Emergency planners cast wary eyes to skies |
| " | Arizona Republic | New River floods, strands 100 |
| 1-13-93 | Tempe Tribune | Gila River flood warning issued as storm moves in |
| " | " | Loss of bridge fails to dampen spirits |
| 1-14-93 | Phoenix Gazette | Gila County scrambles for disaster plan |

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|---|---|---|
| " | " | DPS sinks tanks headed for bridge |
| " | " | Under water in Winkleman |
| " | " | Flood control system worked (editorial) |
| 1-15-93 | Syracuse New York Herald-Journal | Powerful Force (photo & caption) |
| " | Yuma Daily Sun | Residents want government to purchase homes |
| " | Arizona Republic | Coolidge Dam still holding (photo & caption) |
| " | " | Coolidge Dam still up |
| " | " | Salt's banks to be armored at landfill |
| " | Tempe Tribune | Flooding's toll on environment may cost millions |
| 1-16-93 | Arizona Republic | Federal flood aid sought by governor |
| " | " | Uneasy clients could doom tribal landfill |
| " | " | When deluge ends, repairs, grieving start |
| " | " | Salvage from the storm; act swiftly to reduce losses |
| " | Phoenix Gazette | Flooding may worsen;Roosevelt Dam construction imperiled |
| " | Arizona Republic | Dry and dry again: Rain-related woes |
| 1-17-93 | Tempe Tribune | Release was unavoidable officials say |
| " | " | Record-breaking rain to dowse valley/Scottsdale temporarily switches landfills |
| " | Arizona Republic | Run river run |
| " | " | Stupidity storm warnings |
| 1-18-93 | Phoenix Gazette | Flood proves channelization works |
| " | Tempe Tribune | 14 Scottsdale homes look like a bomb dropped after tornado |
| " | " | Strained dams threaten water release |
| 1-19-93 | Phoenix Gazette | Break in storm cuts water releases |
| " | Arizona Republic | Teen girl pulled from raging waters |
| 1-20-93 | " | Gas line explodes under Gila River |
| " | " | Arizona to get financial help, break from rain |
| " | Tri-Valley Dispatch | Santa Cruz River breaks into CAP Canal |
| " | " | Interstate 8 lanes closed (photo & caption) |
| " | " | Who'll stop the rain (photos and captions) |
| 1-22-93 | Arizona Republic | Gila, Santa Cruz Rivers recede |
| 1-24-93 | " | Rains, floods a mess for recreation industry |
| " | " | Firms, workers count losses, return to jobs |
| " | " | Past lessons fail to avert deaths, damage |
| 1-26-93 | Phoenix Gazette | EPA called landfill safe without test |
| " | " | Landfills haunt us/Orme Dam needed (letters to editor) |
| 1-30-93 | " | Get it straight: flood water not "released", dams not for flood control |
| 2-1-93 | Phoenix Gazette | Easy Targets: Tri-City Landfill and the Indians |
| 2-6-93 | Tempe Tribune | ASU, Mesa Schools stop using landfill |
| 2-7-93 | " | January floods speak of ambivalence |
| 2-10-93 | Phoenix Gazette | Calamity crops: floods devastate farms, ranchlands |
| " | " | Tribe's full control on landfill plans worries the state |
| 2-14-93 | Arizona Republic | Arizona underwater |
| " | " | Floods Dangerous Legacy (photo & caption) |
| " | " | The SRP: Valley's lifeline |
| 2-15-93 | Phoenix Gazette | Heavy rains replenishing water supply |
| " | " | Under Siege (photo & caption) |
| 2-16-93 | Tempe Tribune | Ecological method of flood control offers advantages |
| 2-22-93 | Arizona Republic | Bracing for more floods/Earthen dam in canyon gives way |

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| 2-23-93 | Phoenix Gazette | Farmers moves out as Gila rises |
| 2-24-93 | " | Farmers rush to avoid Gila's wrath |
| " | " | Prices rising with flood; Yuma County braces |
| 2-27-93 | Tempe Tribune | Yuma County farms could be flooded a month |
| 3-1-93 | Phoenix Gazette | Water flow from dam may have peaked |
| 3-2-93 | Arizona Republic | Yuma flooding turns deadly, worker drowns |
| 3-4-93 | Phoenix Gazette | Rampaging river forces shutdown of pumping plant |
| 3-5-93 | " | Gila River crests, but fields to remain flooded |
| 3-12-93 | State Press (ASU) | Landfill supplying Salt River garbage to be moved |
| 3-27-93 | Tempe Tribune | City, state to weigh river safety |
| 4-6-93 | Phoenix Gazette | Improve PIR access (letter to editor) |
| 5-10-93 | " | Reclaiming the habitat |
| 5-12-93 | Mesa Tribune | Victims weren't reckless |
| 5-23-93 | Arizona Republic | 19,500 volunteers clear Salt River of flood trash |
| unknown | Phoenix Gazette | Melting snow poses new threat on Gila |
| " | " | Storms wash out forest roads, trails |
| " | " | Rains renew worries over dam's safety |
| " | " | Flood control work pays off in northwest valley |
| " | Arizona Republic | Blame for Gila flooding countered |
| " | Tempe Tribune | Stopping the floods |
| " | unknown | Trash bill to rise if landfill closes/SRP pledges $25,000 to Salt River cleanup |
| " | unknown | Flooding reminds us we can never truly control water/SRP deserves praise, not flood of innuendos and half truths (letters to editor) |

Jan 8, 1993 Daily News-Sun Ram floods NW Valley Roadways

# 19,500 volunteers clear Salt River of flood trash

**By Mark Shaffer**
The Arizona Republic

DeeAnn Daily didn't really care about being part of what the governor called the largest volunteer environmental cleanup effort in U.S. history.

Daily, an Avondale office worker, was a lot more interested Saturday morning in how to remove a piece of moldy, mud-caked carpet wrapped around the roots of a tamarisk tree in the Salt River channel near Phoenix International Raceway.

She tugged and tugged at the carpet, sweat glistening on her arms in the sunshine, only to have the carpet rip at ground level.

"Oh, I don't know what to do about this," Daily said dejectedly.

"I guess we'll have to wait till the next flood to wash it up."

But that small piece of buried carpet was one of the few pieces of trash that got away from about 19,500 volunteers along 39 miles of the Salt below Granite Reef Diversion Dam on the Great Salt River Cleanup day.

By 11 a.m. Saturday, with 12,653 bags of trash weighing 127 tons en route to a landfill near Mobile, Gov. Fife Symington called the volunteer effort the best of its kind.

"We've just beaten Arkansas," Symington said, referring to that state's annual cleanup at Greer Ferry and the most trash ever collected at that event.

"This is just a wonderful event. It shows that civic spirit here is strong."

That spirit even extended to the homeless. Symington said a man became a co-captain of a cleanup team after it met him and other members of five homeless families on one area of the Salt.

Heavy rains in February that flooded the Valley and western Arizona washed mountains of garbage down the Salt, primarily from the Tri-City Landfill in the Salt River Pima-Maricopa Indian Community.

Almost 700 tons of debris, including 15,000 tires, already had been removed by Phoenix municipal and U.S. Forest Service employees and state-prison inmates. But there was plenty left for the thousands of volunteers who fanned out Saturday.

Tom Story/The Arizona Republic

Volunteer Rick Barry works hard during the Great Salt River Cleanup. Thirty-nine miles of the Salt were spruced up by volunteers Saturday.

Cliff Staley, a Glendale real-estate agent, said he found all kinds of stuff along the river, including pieces of plastic milk cartons, cans and a bag used for intravenous hookups.

But Staley said the things he noted with most interest were several plastic bags he found.

"They were the zip-lock kind," he said. "And even after what they went through, the zip lock still worked. I couldn't believe it."

Ried Horton of Glendale, a student at Cactus High School, said he found a gas tank and an *Arizona Republic* vending machine half-covered with sand beneath a bridge over the river.

"There weren't any papers inside. It would have been neat to know the date of when it washed down the river," Horton said.

Daily said the most interesting things she found were a rusted auto muffler and two flasks, one of which still had liquor inside.

"I go tubing down the Salt a lot and water-skiing at Bartlett Lake," Daily said.

"I figured this was the least I could do for all the nice things this river has done for me."

Sunday, May 23, 1993 The Arizona Republic

3-12-93

# Floods considered worst of century

The U.S. Geological Survey has released a report describing the recent floods in Arizona as "the worst since the turn of the century."

"Floods in Arizona, January 1993," was compiled, in part, from water-flow recordings transmitted via satellite that enabled the Geological Survey to provide timely data to manage water releases from state dams.

Water volume along portions of Rillito Creek and the Verde, Little Colorado and Gila rivers "were as much as three times as large as floods that have one chance in 100 of occurring in any given year," the report said.

·NOTEBOOK·
**Environment**

## 40,000 are expected for volunteer cleanup

More than 40,000 Valley residents are expected to volunteer for this year's Bag-A-Thon neighborhood-cleanup and recycling program, which runs from March 20 to May 10.

This year's targets include cleanups of Moon Valley Park and Cave Creek Wash. The Bag-A-Thon, which started in 1986, is sponsored locally by Phoenix Clean & Beautiful and nationally by First Brands Corp. and Keep America Beautiful Inc. More than 800,000 Americans are expected to participate this year in 105 cites nationwide.

For more information, call 262-4820.

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Environmental Notebook is a Friday feature of *The Arizona Republic*. Please direct inquiries and information to reporter Steve Yozwiak c/o *The Arizona Republic*, P.O. Box 1950, Phoenix, AZ 85001.

# Gila River flood warning issued as storm moves in

**By Carolyn Huffman**
Tribune writer

The National Weather Service Tuesday announced a flood warning for most of the Gila River, affecting the area from Coolidge Dam to Painted Rock Dam, in anticipation of the Pacific storm expected to hit the Valley early today.

The area includes the towns of Winkelman, Hayden, Kearny, Kelvin, Florence, the Gila Indian Reservation, and other spots downstream from the junction of the Salt and Gila rivers near Gila Bend.

Pinal County towns were bracing for flooding and evacuation.

Coolidge Dam, which is about 80 miles southeast of Phoenix, was flowing at 4,000 cubic feet per second Tuesday morning, and the water running through its spillways was expected to increase overnight to 10,000 cfs, said meteorologist Robert Wilt.

The flow was expected to reach 25,000 to 30,000 cfs by Friday, and levels along the Gila were expected to rise over the next few days, he said. The increased water was not expected to reach Painted Rock for several days.

Flows were to be higher than normal through next week.

Meanwhile, the Mesa Fire Department added a station to its sources for sandbags and sand, said spokesman Tom Wright.

East Valley residents now can pick up the free items at station 11 at 2130 N. Horne, just north of McKellips Road. Other locations for sand and sandbags include:

- Mesa Fire Station 4, 1426 S. Extension Road.
- Mesa Service Center, 300 E. Sixth St.
- Fire Station 5, 730 S. Greenfield Road.
- Fire Station 8, 4530 E. McKellips Road.
- Fire Station 9, 7035 E. Southern Ave.
- East Mesa Service Center, 711 N. Power Road.
- Gilbert Public Works Department, 525 N. Lindsay Road.
- Tempe Fire Stations 71 and 74, 1000 E. University Drive and 300 E. Elliot Road.
- In Pinal County, sandbags are available at numerous locations; call the public works department at 868-6411 for listings.

The Pinal County Public Works Department encouraged residents Tuesday to be prepared to evacuate, and a hotline was established for round-the-clock flood updates at 868-6963.

Road closure information for Pinal County is available by calling 868-6964. Officials announced that relief and evacuation centers have been set up along the Gila; locations are available by calling 868-6411.

The record amount of rain this month has led to the highest level of water ever noted in at least one reservoir, county officials said.

The normally dry Cave Buttes Dam in north central Phoenix, built in 1979, now holds more than 17,000 acre feet of water — more than 5 billion gallons. The water would likely have overflowed the old Cave Creek Dam that Cave Buttes replaced, according to the Flood Control District of Maricopa County.

State of en

# Flooding's toll on environment may cost millions

By Chris Coppola
Tribune writer

State lawmakers, already nervous about another budget that threatens many state programs, found little comfort Thursday when a top state official predicted the environmental aftermath of flooding throughout the state will cost millions.

Still uncertain, however, was exactly who would bear the brunt of those costs, said Ed Fox, director of the Arizona Department of Environmental Quality.

While attention locally has focused on the trash being washed into the Salt River from the Tri-City Landfill, other cleanup problems may be worse, Fox said.

"This is one of many problems in the state, and maybe not the worst," he told the House Environment Committee during Thursday's hearing. The situation in Winkelman, where Gila River flooding has forced evacuation of the community, also may leave a significant environmental mess, he said.

"There is no question, by the time we are done, it's going to be millions of dollars," Fox said.

Fox did not attempt to downplay the situation along the Salt, telling committee members the department "has been concerned about the landfill for 20 years."

He also cited an article in Thursday's *Tribune*, which reported that the state had predicted a washout of trash four years ago, but cities using the dump apparently failed to react to the warning.

That raised eyebrows from several legislators.

"I wondered why we're still allowing this (landfill) to be used," said freshman Rep. Richard Kyle, R-Phoenix.

Committee chairwoman Rep. Sue Grace, R-Phoenix, said she expects her panel will begin work on a bill next week that would bar Arizona communities from using any landfill that is not up to federal standards, as is the case with Tri-City, which is outside state jurisdiction on the Salt River Pima-Maricopa Indian Community.

THE PHOENIX GAZETTE JAN. 12, 1993

# For flooded Winkelman, the worst is yet to come

## Gila rising rapidly; releases set record

By Glen Creno and Alfredo Azula
THE PHOENIX GAZETTE

The southeast Arizona mining town of Winkelman is partially under water, and the Gila River is just getting warmed up.

A section of town known as The Flats is overrun with water from storms that caused flooding and other water-related chaos throughout the state. A break in the weather Monday merely gave the 600 or so residents of Winkelman time to catch a breath before the big water hits town.

The Gila has risen so quickly that the federal government was forced to open the spillways at Coolidge Dam on Monday. The flow is expected to take 10 hours to reach beleaguered Winkelman, the first community downstream from the dam.

"I'm all nerves right now," Mayor Arnold Ortiz said Monday night.

Officials estimated that water was flowing through the spillways at 10,000 cubic feet per second early today. That was expected to increase gradually to a peak of 25,000 to 30,000 cfs by noon Wednesday.

Sandbagging and other efforts to divert the water have failed. All Winkelman can do is wait.

"I tell my people here to prepare for the worst and hope it doesn't happen," Ortiz said.

About 150 houses were flooded in The Flats, a low area near the river. Ortiz said 250 to 300 people were evacuated.

Others have been put on notice that the higher water could reach their houses, and some are moving property — and themselves — out of the water's path.

The Gila County Sheriff's Office is one of several agencies helping residents. Chief Deputy Charles Barron said Monday that the town hasn't panicked, and no one has been injured in the flooding.

"The people know it's coming," he said. "It's bothering them some. It's their homes being affected. But it's inevitable. We'll just see what we get, and when it's over we'll clean it up."

The Red Cross set up an emergency shelter in a school gymnasium to provide food and housing. Some evacuees are staying there, while others have moved in with relatives or into motels.

The U.S. Army Corps of Engineers built a dike on the river to handle a less powerful flood about 10 years ago. It isn't helping now.

"It (the water) was over that, no problem," Barron said.

Officials anticipate that at the worst, the water could rise to the edge of the state highway that divides the higher and lower sections of the town. Barron said no one knows what to expect.

"There's nothing to build assumptions on," he said. "They've never had nothing like this in the past."

The dam is on the San Carlos Indian Reservation. It was designed, built and is run by the Bureau of Indian Affairs. The Bureau of Reclamation is managing safety improvements to the dam.

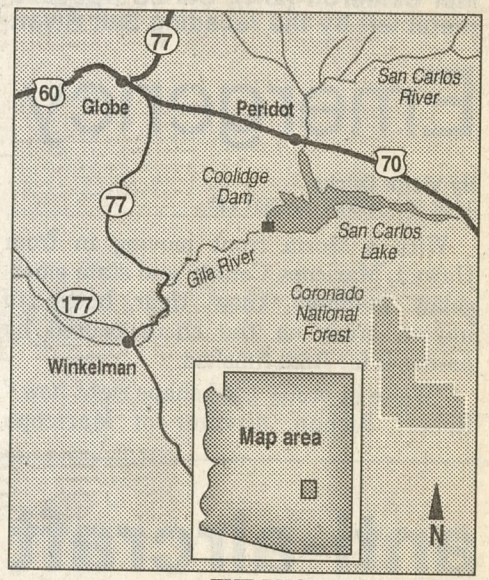
The Interior Department said in 1989 that Coolidge Dam was the most dangerous federal dam in the country.

"There is absolutely no danger of the dam failing," BIA engineer Ken Clouser said. "The spillway capacity is 120,000 cfs."

Clouser said the dam is saving the towns in the path of the water from an even greater deluge. Water was flowing into the lake behind the dam at a rate of 60,000 cfs Monday afternoon.

"We have quite a capacity for storage," he said.

Chuck Morfoot, an Interior Department spokesman, said the release was the greatest amount of water that has flowed through the dam. "The only other time they released water was in 1983, when they released 5,000 cfs," he said. "They've never seen anything like this before."



THE PHOENIX GAZETTE

## CORRECTIONS & CLARIFICATIONS

THE PHOENIX GAZETTE *is committed to fairness and accuracy in its presentation of news. If you have a question or comment about our coverage, or if you want to correct a factual error, please call Managing Editor Janet C. Leach, 271-8608.*

TEMPE TRIBUNE

# Stopping the floods

Devastating floods in the Salt River can be completely prevented by good management of the water resources. Poor management by the Salt River Project has brought us the floods of 1978, 1980 and 1993. Some $65 million in damage was caused in 1980 alone.

Until the people insist on good management, the floods are likely to continue to occur. The best prevention is the use of groundwater recharge, a process by which water is allowed to seep into the ground through a sandy soil. An excellent area for recharge is the Salt River bed in north Mesa. Laws are now in place to permit the use of this technique, which has been known and used for decades.

Not only do the floods cause needless, severe damage to roads, bridges and homes, but enormous amounts of water are wasted. A 150,000 cubic-feet-per-second volume of water could, in less than four days, supply the needs of all the Valley cities for a whole year. The waste is colossal.

The Salt River Project should be controlled by the people. Statutes deny representation to 415,000 of its electrical power users. State officials tend to duck and will often refer you to the federal government when the SRP is mentioned. It is, however, the state which must act, and only the people can make the state act.

Politicians don't like to deal with powerful organizations and will do nothing unless the people insist. There are many pieces of incorrect information floating around. Do not be thrown off the trail by one of them. The problem can be solved.

James Seamans
Phoenix

TEMPE TRIBUNE FEB. 6, 1993

# ASU, Mesa schools stop using landfill

**By Patricia Likens**
Tribune writer

Two agencies have pulled out of the Tri-City Landfill after learning that they had continued to dump there despite problems caused when flooding washed some of the garbage into the Salt River.

Most of the trash taken to the landfill by those agencies was landscaping and construction debris, according to officials from the Mesa Unified School District and Arizona State University.

Val Peterson, director of facilities management for ASU, said because of budget constraints and the fact the landfill is scheduled to close in October, the university will not renew its contract with Tri-City in the spring.

"We've recognized the need for an alternative source," Peterson said.

The university also has a contract with Waste Management, a solid-waste disposal company, to dispose of the majority of debris from construction projects on campus.

Mesa school officials said the district stopped taking its trash to Tri-City last week.

"If someone would have come to me last July and said, 'Do you know you're dumping in a landfill that could be flooded?' we would have stopped then," said Chuck Essigs, assistant superintendent for business services.

Scottsdale Memorial Hospital and Scottsdale Community College use BFI, a waste management company, to haul their trash to Tri-City. Hospital officials are renegotiating their contract, which expires this spring.

"We don't know who we'll go with, but (the floods) may have some bearing on our decision," said Jim Borowiak, manager of the hospital's housekeeping services.

Althea Long, spokeswoman for Scottsdale Community College, said SCC has no plans to discontinue use of Tri-City.

Mesa Community College has used the landfill to dispose of about a ton of tree trimmings from the campus in the last six to seven months, said spokesman Dave Irwin.

"We'd prefer there to be a better safeguarded way of disposing, but those are issues dealt with through our contractor," he said.

So far, the cities of Tempe and Scottsdale stopped using the landfill. Maricopa County Flood Control Flood District, Arizona Department of Transportation, Laidlaw Waste Systems, ASU and Mesa schools have followed suit, while Mesa and the towns of Gilbert and Fountain Hills are continuing to use it.

2-6-93

# Blame for Gila flooding countered

**By Steve Yozwiak**
The Arizona Republic

Environmentalists and state biologists were up in arms Monday over statements by farmers flooded by the Gila River that environmental concerns had led to their current woes.

Some environmentalists suggested that the federal government buy out the farmers of the Wellton-Mohawk Irrigation and Drainage District and end an environmentally destructive operation.

"You're looking at the most massively subsidized irrigation district in the world," said Dick Todd, a retired state Game and Fish Department biologist who spent much of his 24-year career studying the endangered Yuma clapper rail.

Gila River farmers in recent days blamed the lack of adequate flood control on environmentalists' desire to protect the bird. However, Todd said, many flood-control projects were stopped not because of the clapper rail, but because they were not cost-effective.

The district exists, he said, because of hundreds of millions of dollars in federal projects, including flood control from the Painted Rock Dam near Gila Bend, 300 miles of canals that bring Colorado River water from Imperial Dam, drainage channels and wells that take salty irrigation water back to the Colorado River, and a desalination plant near Yuma that improves the water quality of the Colorado before what's left of it is released across the border to Mexico.

"The real reason (for flooding) is that they've moved their farmland right up to the edge of the channel," Todd said.

"They have themselves to blame, in large measure, for the current mess."

Rory Aikens, spokesman for the Game and Fish Department, agreed.

"It (flooding) has nothing to do with environmental politics," he said. Adding flood-control projects "just wasn't cost-effective."

"You want somebody to blame, but that's way off the mark," Aikens said of blaming environmentalists.

One project in the 1970s would have allowed the lower Gila to receive up to 50,000 cubic feet of water per second without flooding. That project easily would have handled the 25,000 cfs of water now overflowing Painted Rock Dam.

Anne Cannon, a spokeswoman for the Army Corps of Engineers, said that not only were there environmental concerns, but that the $30.6 million project was not built because there was no local sponsor willing to pony up $700,000 in matching costs, and the corps decided it was not cost-effective.

The project would have protected only an estimated 47,000 acres of agricultural land from flooding expected only once every 100 to 200 years, Cannon said.

Meanwhile, a smaller channelization project designed to handle up to 10,000 cfs was undertaken after floods in 1983, which produced flows of only 4,500 cfs past Painted Rock Dam.

According to a July 1984 environmental assessment by the Bureau of Reclamation, that 60-mile project was expected to produce no environmental damage.

"The U.S. Fish and Wildlife Service has determined that the project would not jeopardize the endangered Yuma clapper rail," the assessment said.

Harold Pritchett, assistant project manager for the Bureau of Reclamation, said his agency's portion of the project was finished in 1989, but the Wellton portion of the project remains unfinished.

"To my knowledge, they were able to resolve all the environmental issues," Pritchett said. "I'm not aware of any features that were stopped because of environmental concerns."

Todd said he believes that much of the current flooding could have been avoided if the Corps of Engineers had released more water from Painted Rock Dam earlier in January.

Cannon said the corps did not release more than 5,000 cfs before Jan. 19, two weeks after heavy rains began pounding the state.

Todd said he believes that if the corps had released more water sooner, there would be enough capacity behind Painted Rock Dam to prevent much of the flooding.

Cannon, however, said corps officials had no idea in January that the state receive as much precipitation as it has.

ARIZONA REPUBLIC
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ARIZONA REPUBLIC
FEBRUARY 14, 1993

# *Flood's dangerous legacy*

Sean Openshaw/The Arizona Republic

Medical waste has been found along the Salt River in the wake of last month's flooding. On Friday, carpenters Terry Heffner and Mike Nelson discovered syringes, tubing and more, which may have been washed from the Tri-City Landfill. John Godec of the state Department of Environmental Quality said it is unknown what will be done with the waste.

# In parts of Tucson, flood-isolated homes just a copter hop away

The Arizona Republic Sunday, January 10, 1993

**By Keith Rosenbloom**
The Arizona Republic

TUCSON — A $50 fare for a couple of miles home may strike some as sky-high.

But when the lift takes the passenger about 500 feet off the ground — with views surpassing even those from the best of limos — who's to complain?

Apparently not the hundreds of people who have chosen to plunk down the money and avoid another night in a hotel or on someone's floor.

Meet Don Hildebrand and his pilots at Southwest Helicopters Inc.

Southwest, Tucson's only commercial helicopter service, has ferried at least 300 people to and from the northeastern part of the city, which has been isolated by a raging wash since late Thursday.

"I figured we'd cross 30 or 40 people, and the next thing I knew, we had lines of people waiting two hours to get a ride," Hildebrand said.

"These rains have given us a boost."

The 12-year-old company, normally based at Tucson International Airport, has been providing boosts of its own in four Bell Jet Ranger helicopters, taking off from a parking lot of the Hilton East Hotel.

The Hilton, the nearest hotel to the Agua Caliente and Tanque Verde washes, also has benefited from the rains. After being virtually empty on Thursday, it was three-quarters full Saturday.

The copters, which can transport a pilot and four passengers, fly to a patch of "relatively dry" soil on Fort Lowell Road between Soldiers Trail and Wentworth Road, said Mitch Cloutier, an employee of Southwest.

"People had parked in all the best spots for a helicopter to land," he added.

At the end of their flight, passengers meet up with their relatives, bosses or horses.

"The area that's cut off is pretty affluent, and that has been to our benefit," Hildebrand said.

Southwest said it will continue to make its five-minute flights available until traffic is restored on Tanque Verde Street, which has been flooded by the Agua Caliente. Pima County officials said it probably will be Monday before vehicle traffic resumes, assuming that no more rain falls. However, the forecast calls for more rain today.

Among those flying Saturday were dozens of residents of exclusive Forty Niner Country Club. But not all those using the copter service were well-to-do.

Laura Penland, a worker at PHH Home Equity, had been housesitting before she became stranded Thursday night. She was returning to feed two Rottweilers and a Norwegian elkhound that hadn't eaten since Thursday morning.

"I don't think they'll be in a very good mood," she said.

Margaret Crabtree, a part-time worker at Beaudry Motor Co., was returning to her child and parents. Forewarned that food was in short supply, she carried a bag of groceries.

"I heard people complain that $50 was a lot of money to get back home," she said. "I don't know what all the fuss is about. It seems like a perfectly reasonable cost."

It may not have been an ideal day for golfing, but the Forty Niner wanted to be sure the course is ready soon. On one midday flight were Nick Papanikolas, manager of the golf course; Steve Counts, its lead mechanic; and Rick Hornfeck, assistant golf pro.

Southwest started its rescues Thursday night, when it lifted 80 executives of Scott Paper Co. over a wash near Oro Valley. The group had been visiting a ranch as part of its stay at the Westin La Paloma resort.

The company also was planning a special cargo flight Saturday afternoon for that ubiquitous Arizona institution, Circle K.

The lone Circle K food store in the area isolated by the floods was "just about out of everything," Hildebrand said.

# Water flow from dam may have peaked

## Flooding could worsen on Gila; 1 bridge open

WELLTON (AP) — Only one bridge across the lower Gila River remained open today as water from an overflowing reservoir washed across much of the nation's winter vegetable crop and into homes.

However, the flow of water over the spillway of Painted Rock Dam appeared to have peaked Sunday, according to the Army Corps of Engineers.

The normally dry river, fed by record winter rain and snow across much of the state, has forced more than 1,600 people from their homes in southwestern Arizona.

The U.S. 95 bridge across the Gila near Yuma was the only one of nine bridges between the dam and Yuma that remained open today, said Bart Freeman, a state emergency services official working in Yuma. The closure of the others has nearly isolated the northern part of the county. The Gila flows into the Colorado River at Yuma.

The Corps of Engineers had expected the flow over the spillway at Painted Rock Dam, about 90 miles east of Yuma, to crest at 30,000 to 32,000 cubic feet per second by midweek.

See ■FLOOD, Page A10

Phx Gazette 3/1/93

## ■ FLOOD

From A1

But Jim Lafrenaye, at the corps' Phoenix office, said the flow appeared to have peaked at 25,580 cfs Sunday morning.

Flooding could worsen downstream because it takes water from the dam about five days to reach the Colorado, Freeman said.

Although the flood might not be as deep as expected, the same amount of land may be covered by water, water experts said.

"It doesn't really matter if the water is 1 feet deep or 3 feet deep," said Hank Green, Yuma County emergency services director. "It's still going to do a lot of damage."

He said a "significant number" of fields in the Mohawk Valley went under water late Saturday and early Sunday.

The bridges in the lower Gila River Valley, between the dam and Yuma, are expected to be closed for the next two months. Green said some of the crossings are not expected to reopen until Thanksgiving, assuming they withstand the force of the water.

Residents downstream from the dam have spent more than a week preparing for the flooding.

Yuma County produces 75 percent of the nation's iceberg lettuce as well as a good portion of its broccoli, cauliflower and other winter vegetables.

Most of those crops are growing in fields straddling the Gila River through the 70-mile-long valley.

The harvest began only about a week ago, and an estimated 70 to 80 percent of the crop remains in the field.

PHOENIX GAZETTE
MARCH 1, 1993

# Landfill supplying Salt River garbage to be moved

## 344 tons of trash removed from area; Cleanup efforts successful, director says

BY S. TALBOTT SMITH
STATE PRESS

While Tempe finished cleanup efforts on the garbage-strewn banks of the Salt River Friday, the landfill in which the problems originated will be closed and moved.

Jim Jones, Tempe public works director, said the nine-day cleanup, which netted 344 tons of garbage, went smoothly despite hazardous waste problems.

Jones said medical waste found along the banks of the river was collected and disposed of by a hazardous waste team from the Tempe Fire Department in conjunction with BFI Inc., a waste disposal company. Jones was uncertain how much medical waste was removed fom the river.

He said non-hazardous waste was transported to Butterfield Landfill by the Waste Management Company at $19 per ton, costing a total of more than $6,500. The cost of the cleanup itself, which includes the cost of labor and equipment used on the banks of the river, was not available, Jones said.

Jones said the city will seek reimbursement for expenses incurred in the cleanup, likely from the Federal Emergency Management Agency.

The agency, which declared an area extending from the White Mountains in the east to Yuma in the west a disaster area as a result of flood and subsequent landfill waste problems, is expected to review applications for reimbursement later this spring, Jones said.

The garbage ended up on the banks of the river in Tempe and Phoenix after heavy winter rains forced Salt River Project officials to release large amounts of water from upstream dams.

The rising flood waters eroded a portion of the Tri-City Landfill, which is located at the intersection of McDowell Road and the Beeline Highway on the Salt River Pima-Maricopa Indian Reservation, east of Tempe. The Indian community manages the landfill.

Landfill officials announced the closure of the garbage dump last week, adding that it will be re-opened at another location.

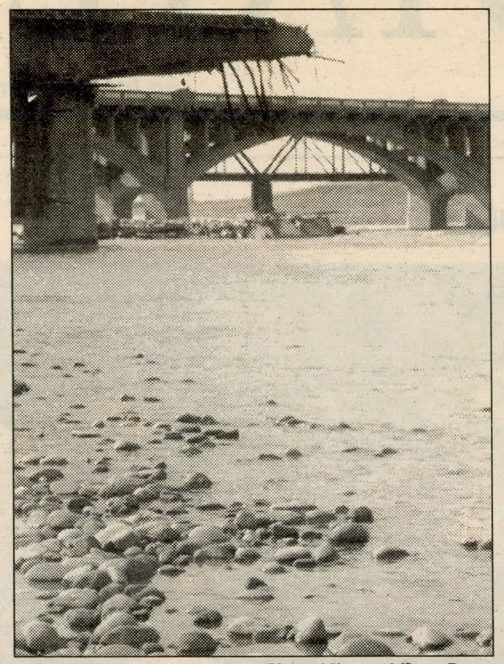
Jones said the city will not seek reimbursement from the cash-strapped Indian community, saying that it would be a "fruitless effort."

In the past, Tempe used the Tri-City landfill for its household garbage disposal until worries over whether the landfill could stand up to a heavy flooding forced the city last year to select Butterfield Landfill as its current waste site. Mesa and Scottsdale continued to use the landfill despite those concerns, although Scottsdale officials switched landfills after the recent flood mishap. Mesa city officials continue to use Tri-City and plan to move dumping to the new site when it opens.

Tri-City's per-ton dumping rates were considerably lower than rates offered by Butterfield and other area landfills. After moving to Butterfield Landfill, municipal garbage removal rates rose in Tempe as a result of those increased dumping rates.

Tri-City's rates currently stand at $14 per ton, but were several dollars cheaper when Tempe was forced to choose another site, according to Frank Mertley, community manager for the Indian enclave.

Mertley said rates will increase again once the facility moves to its new location, set for the area at the junction of the Beeline Highway, Gilbert Road and the Arizona Canal



Richard Komurek/State Press

**Cleanup crews have cleared the trash caused by recent flooding from the banks of the Salt River, but have yet to reach areas in the middle of the waterway, such as this one near the Second Mill Avenue Bridge. The bridge was severely damaged by the floods.**

north of Mesa. Mertley said the new landfill, which is one-half mile outside of the Salt's 100-year flood plain, will conform to all Environmental Protection Agency regulations.

Mertley said the old landfill will be closed by October, a requirement set by the EPA for all unprotected, old-type landfills. Mertley said the closure had little to do with the flooding.

Further measures will be taken at the old landfill site once it is closed to protect it from any future floods. Mertley said a "hard bank" will be built around the landfill's exposed edge and a two-foot cap will bury the dump to facilitate plant growth, which will help break the landfill down over the years and prevent it from becoming an eyesore.

Jones said Tempe has a three-year contract with Butterfield, which expires in Dec. 1995. He said the city will reconsider using the new Tri-City site when the Butterfield contract expires.

The banks of the river are expected to remain clear, Jones said, unless the state's weather takes a turn for the worse as it did in December and January with the heavy rains. If that should happen, flows through the Salt would have to reach virtual catastrophic proportions before more trash could escape the landfill.

Tri-City landfill officials said a newly-constructed dike can withstand river flows of more than 100,000 cubic feet per second (CFS). Currently, 14,500 CFS is flowing in the Salt as it makes its way past the landfill and through Tempe.

Flows at the height of flooding in January reached 124,000 CFS, but are not expected to reach that level again even as melting snows from the eastern part of the state make their way westward into metro Phoenix this spring, according to a SRP spokesman John Egan.

Egan said flows at their maximum will likely not exceed 60,000 CFS, and will only reach that level if a major tropical storm dumps warm rains on snows in eastern Arizona. Odds are, he said, that the snows will melt slowly and flows will remain at around 5,000 to 15,000 CFS. He said flows will continue for at least a month.

PHOENIX GAZETTE
JAN. 20, 1993



# Fears about dam spur water release

By Mike Padgett
THE PHOENIX GAZETTE

Lake Pleasant has nearly doubled in size because of recent heavy rains, forcing federal engineers worried about the lake's untested dam to release water into the Agua Fria River.

The release started Sunday because runoff from recent storms was filling the lake faster than planned.

Today, engineers were to study the runoff entering the lake to decide whether to stop the releases.

Chuck Morfoot, spokesman for the Bureau of Reclamation, said that while bureau engineers in Denver are not concerned about the New Waddell Dam's safety, they are worried about the lake filling faster than planned.

The dam was completed in October. It replaced the Waddell Dam, built in 1927 as part of an irrigation district.

The new dam was built by the bureau as a storage facility for water from the Central Arizona Project.

Engineers planned to fill the lake slowly this winter with water from the CAP canal, a 335-mile-long canal that pumps water into central Arizona from the Colorado River.

"The design was to fill it up to a certain level and watch it for a while, and then fill it to a higher level and watch that for a while," said Robert Herring, regional superintendent of the Maricopa County Parks and Recreation Department.

"We were going to fill it at the rate of a foot a day," Morfoot said. "Instead, we were filling up at a foot an hour."

The releases forced the closing of crossings at Northern Avenue and Rose Garden Lane, Morfoot said.

# Mesa still hauling city's garbage to flooded dump

By Anthony Sommer
and Steve Cheseborough
THE PHOENIX GAZETTE

MESA — Ignoring a potential court order to stop, city officials decided Tuesday to continue dumping in the partially flooded Tri-City Landfill.

"Where we're tipping now is nowhere near the river's edge. I don't anticipate that washing away," said Mayor Willie Wong, who visited the landfill last week.

Meanwhile, Scottsdale Mayor Herb Drinkwater said his city might resume dumping at Tri-City if there is no court order against it.

Wong and the rest of the City Council accepted Public Works Director Bruce Crandall's recommendation to keep dumping at Tri-City, on the Salt River Indian

See ■LANDFILL, Page B2

## ■ LANDFILL

From B1

Reservation north of Mesa.

Tons of buried garbage have been swept downstream by heavy water flows in the Salt River. Salt River Pima-Maricopa Indian Community officials insist there are no toxic wastes or health hazards in that material.

Don't Waste Arizona and the Southwest Environmental Group disagree. On Tuesday, they asked U.S. District Judge Earl Carroll to issue a temporary restraining order blocking Mesa from using the landfill.

Attorneys for the groups and the tribe told Carroll late Tuesday that they were close to a settlement on the restraining order. The judge ordered them to return at 3 p.m. today.

A settlement would not affect a lawsuit filed Jan. 12 that accuses the Indian community and three cities of violating numerous federal environmental laws.

Tempe stopped using the landfill last year, and Scottsdale decided Friday to stop sending its trash there, at least temporarily.

Mesa City Manager C.K. Luster said his city could change to another dump site "within a day or two, if that were necessary or desirable. But I'd hate to see us rush into something. I think we could stub our toe easily."

Switching to the county's Queen Creek Landfill would cost the city an additional $3.3 million a year, above the $13.8 million it spends hauling waste to Tri-City, Crandall said. He said other options would be even more costly.

In addition, the city would continue to owe the Indian community $6.05 a ton for not dumping at Tri-City, according to its contract, Crandall said.

Drinkwater said Scottsdale is paying that fee, which is to help pay for closing the landfill in October and designing a new one. He also said he disagreed with his city staff's recommendation to stop dumping at Tri-City, but went along with it anyway.

"This is the first I've heard of it," Tempe Public Works Director Jim Jones said of the $6.05 fee. "When we stopped dumping there, we stopped paying them."

Jones also said Tempe recently signed a three-year contract to dump its garbage at Waste Management's private landfill.

# EPA called landfill safe without test

## Official contradicts an earlier report

By David Hoye
THE PHOENIX GAZETTE

Federal inspectors never tested the flood-damaged Tri-City Landfill before the Environmental Protection Agency decided the dump posed no threat to public health or the environment.

Dan Shane, a coordinator with the EPA's emergency response team, said Monday that eroding banks and high water in the Salt River made it too dangerous to take water and garbage samples during a Jan. 12 visit to the site.

EPA spokesman David Schmidt told *The Phoenix Gazette* on Jan. 13 that testing had been done, and that results showed no hazardous materials were leaking into the rain-swollen river.

Schmidt said Monday that he couldn't remember what he reported. "I just got word that his (Shane's) inspection revealed no hazardous waste," Schmidt said.

Shane said the same conclusion about the landfill was likely even if testing had been conducted.

See ■LANDFILL, Page A2

Shane said he walked out on a dike and looked back at the eroded landfill with binoculars.

"Based on my experience and my years of inspecting municipal landfills, what I saw was nothing associated with contamination or even household garbage," he said.

"I looked over the entire face of the landfill using binoculars. I couldn't even find a can of paint."

Shane said he did see tons of construction debris, wood, cardboard and concrete — materials the landfill's owners have said were used to protect sections of typical municipal garbage from floodwaters.

"It was my opinion that collecting water and waste samples was not necessary since all I could see was construction debris," Shane said. "In addition, collection would not have been possible because it would have been too dangerous."

State Department of Environmental Quality officials said they remain concerned about what may have leaked into the river during the past few weeks of flooding.

Betsy Westell, manager of the department's solid waste unit, said the agency sent its inspectors to take water samples downstream. Results are expected within two weeks.

Soil samples are expected to be taken once water levels drop.

"Since we've never had a handle on what went through those gates, we have to say it could have been everything from cardboard to hazardous waste," Westell said. "We have to be concerned."

Even if hazardous waste spilled from the landfill, she said, the potential threat to public health or the environment may be small.

"My feeling is there's enough soil and non-hazardous waste that whatever went downstream is probably diluted to very small concentrations," she said.

The emergency response team sent by the EPA included Shane; a member of the U.S. Coast Guard's Pacific Strike Team, which specializes in oil and hazardous waste problems; two inspectors under contract with the EPA; and an emergency response coordinator with DEQ.

Had the group found hazardous materials leaking into the river, the EPA was poised to begin an immediate cleanup of the landfill and river using up to $2 million in federal Superfund money.

The EPA would have sought reimbursement by the landfill's owners, the Salt River Pima-Maricopa Indian Community, and its municipal customers in recent years, including Mesa, Scottsdale and Tempe.

Environmentalists long have been concerned about the safety of the landfill because of its vulnerability to floods and because it is believed to have accepted hazardous industrial waste during the 1970s, when the practice was legal.

The EPA is in the midst of a yearlong study of the landfill to determine whether it should be listed as a Superfund site.

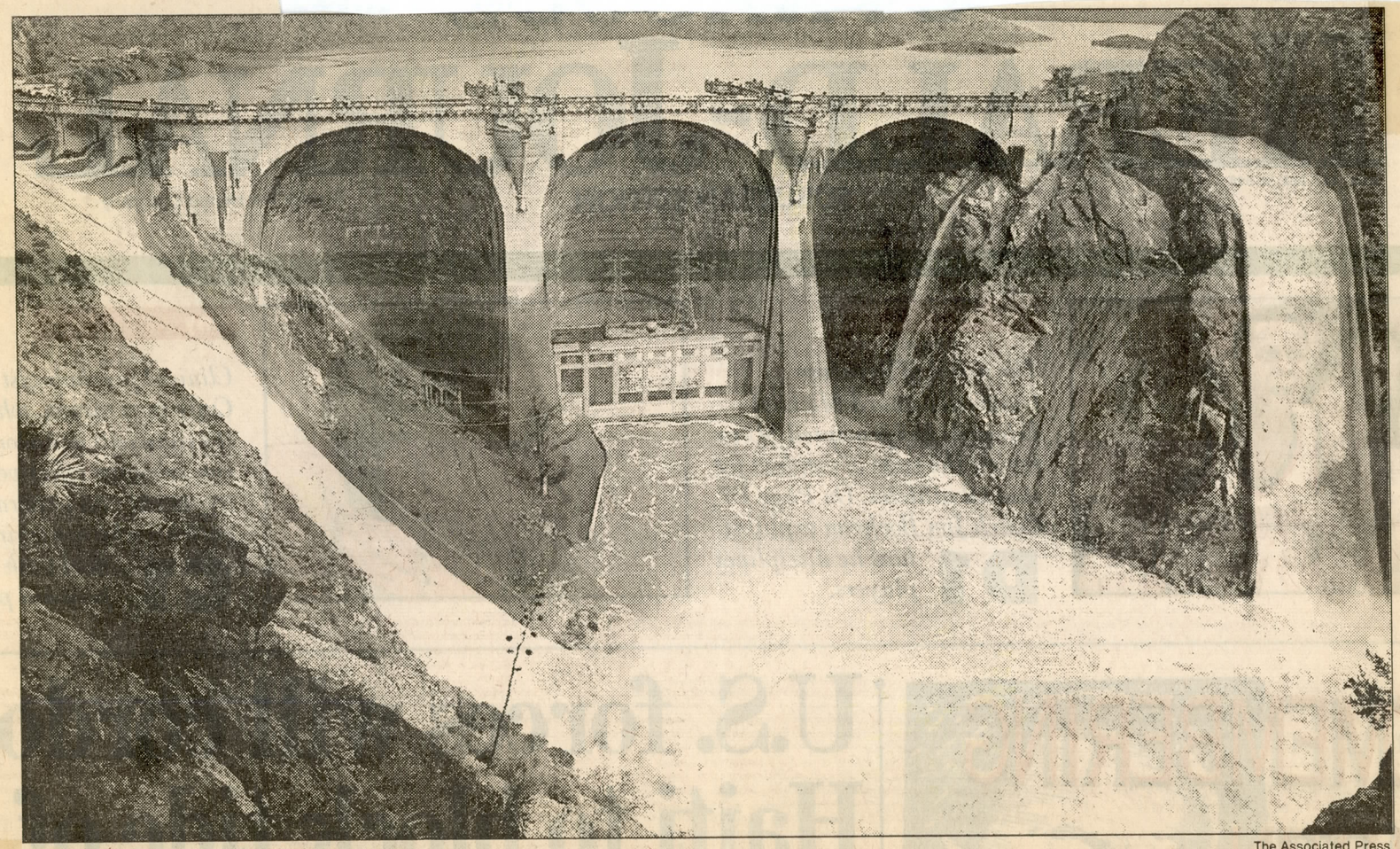
Phx Gazette
1/26/93

## CORRECTIONS & CLARIFICATIONS

*THE PHOENIX GAZETTE is committed to fairness and accuracy in its presentation of news. If you have a question or comment about our coverage, or if you want to correct a factual error, please call Managing Editor Janet C. Leach, 271-8608.*

HERALD-JOURNAL
SYRACUSE, NEW YORK
JAN. 15, 1993





The Associated Press

**POWERFUL FORCE:** Both spillways at the Coolidge Dam pour water into the swollen Gila River Thursday posing a new flood threat 20 miles downstream in the town of Winkelman, Ariz., where an entire area remains under water. About 350 people have been evacuated from the riverside community. Engineers are confident the 63-year-old dam will hold. The 250-foot-high dam is in a Gila River canyon 80 miles southeast of Phoenix in a mining region.

PHOENIX GAZETTE
FEB. 1, 1993

# Easy targets

## Tri-City landfill and the Indians

**Let the record show that the Salt River Indian community is working hard to rectify the problems at the Tri-City landfill.**

Like many environmental stories today that dramatically make their way into the news pages and onto television screens, the story of the Salt River Pima-Maricopa Indian Community's Tri-City landfill and its erosion into the Salt River is not quite the "public-health horror" originally portrayed.

Yes, garbage from the landfill washed into the river and cast itself ashore downstream. Yes, this was not a good thing. Yes, there is enough blame for all to share.

Ivan Makil, president of the Indian community, admits, "If we had it to do all over again, we would certainly have thought twice about the whole issue, especially the placement of the landfill . . . When we got into this business, there were numerous other landfills and dumping areas being operated along the river. Some are now EPA Superfund sites. No one knew what we know now."

What we do know now, after the floods, is that politicians and bureaucrats have registered their continuing concern and the U.S. Army Corps of Engineers and the Environmental Protection Agency have recorded their continuing consternation.

But the Indian community seems to have been the easy target for most of the posturing politicians and blustering bureaucrats, who are always eager to point the finger of blame in an effort to cover the deficiencies in their own offices.

Not only was the public health not threatened by what turns out to have been mostly construction debris from the landfill, those dizzying estimates of the amount of garbage that were carried into the river now seem to have been vastly exaggerated.

The Indians agreed to limit dumping outside the flood plain as well as to the installation of a mesh fence and on-site inspections by environmental groups.

The Indians also completed construction of a dike that now wraps around the weakened corner of the landfill, an awesome construction project that was accomplished in a matter of days.

As if to prove the point of exaggeration, one spokesman for the environmentalists said, "We've protected health and the environment," following the agreement that was presented in court. If health and environment can be protected by a dike and wire mesh, one has to puzzle over the degree of hazard in the first place.

But the confrontation is far from over. Legitimate concerns about unhealthy materials leaching into the river remain valid.

Another lawsuit awaits the Indian community and its customers, the cities of Mesa, Scottsdale and Tempe, as environmentalists seek to force payment of cleanup from this year's flood damage.

Again, Ivan Makil: "When the river flow drops enough to allow the cleanup process to begin, I can assure everyone that we will certainly do our part to play an active role in cleaning up the debris. We'll act responsibly. We've always tried to."

With this reasonable approach, with the landfill being relocated to a safer site, the Salt River Pima-Maricopa Indian Community ought to be remembered not as an easy target, but as an easy ally in helping save part of a river we all share.

# Tribe's full control on landfill plans worries the state

By David Hoye
THE PHOENIX GAZETTE

The Salt River Pima-Maricopa Indian Community, dogged for years by a landfill that keeps polluting the Salt River, plans to open a dump that will escape federal inspection.

Tribal leaders say the landfill will meet all federal regulations, but they admit there is no provision for the federal Environmental Protection Agency to inspect or issue an operating permit for the facility.

State, county and local governments have no jurisdiction over the tribe.

"They could, if they wanted to, build and operate the landfill without discussing anything with us," said Jim Vreeland, a solid waste expert with the EPA's regional office in San Francisco.

He blamed Congress, which recently revised landfill laws but failed to give the EPA authority over tribal enterprises such as the Tri-City Landfill, which was eroded last month by the Salt River.

The prospect of an uninspected landfill worries state legislators and state Department of Environmental Quality officials.

"The tribe is treated like a state. They have the opportunity to develop a regulatory plan for the landfill," said Steve Johnson, the department's assistant director for waste programs.

"The problem here is that the tribe is also going to be the owner of the landfill."

Because the tribe is beyond their jurisdiction, state officials are trying a back-door approach to regulation.

The House [illegible]ronment Committee passed a bill last week that would prohibit cities and garbage companies from using a landfill unless it has been approved by the state.

During a closed-door meeting Friday, Environmental Department officials told representatives from Scottsdale and Mesa that they will make a push for landfill oversight privileges.

"We would insist we look at it," Betsy Westell, the department's solid waste manager, said of the proposed landfill plan. "Even though it's their land, it's our state. We have a strong argument to look at their plans."

Westell said the state hopes the tribe's municipal customers might pressure the Indian community into letting the state review the landfill plans.

However, officials of cities that depend on the tribe for cheap landfill services appear reluctant to act.

"It's not our position to put pressure on the Indian community," Scottsdale City Manager Dick Bowers said Tuesday.

"The only pressure, if it's considered that, is to clearly state our intentions, which are we will use a landfill that meets the federal regulations," he said.

All this angers Ivan Makil, president of the Indian community.

"It would have been nice if they'd (the state) have talked with us about this first," he said. "I never cease to be amazed by the lack of respect for the tribe as a governmental agency."

Makil said the tribe has always followed [illegible]al guidelines, and he appeared miffed by the idea of allowing the state to watch over the planning, construction and operation of the proposed landfill.

"We're willing to share and to work it out so that the cities and whoever else can feel comfortable," Makil said.

"But we're not going to allow the state to come in and dictate to us what we should build and how we should build it."

Vreeland pointed out that the tribe will have to hire licensed contractors to build the landfill, and that the private engineers and geologists won't approve the facility unless it meets all federal regulations.

But many question the tribe's ability to build such a landfill by October, the tribe's target date.

They say private land[illegible] off the reservation can take years to build.

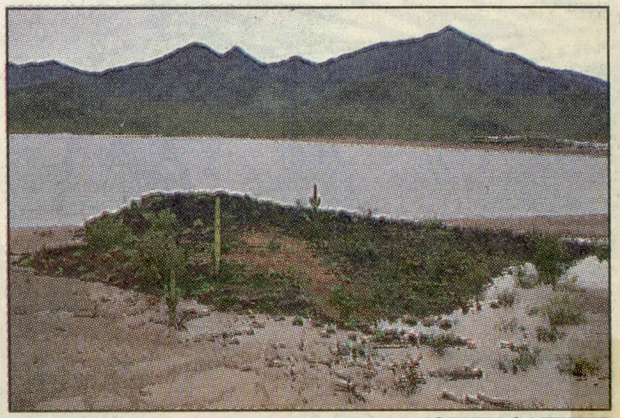
From A1

PHOENIX GAZETTE
FEB. 15. 1993

Deirdre Hamill / THE PHOENIX GAZETTE

## Under siege

**Above, Gila River floodwaters inundate a house on Watermelon Road on the Gila River Reservation. At right, storm runoff has created one of the largest lakes in the state behind Painted Rock Dam, 20 miles west of Gila Bend. Officials say the reservoir is nearing its capacity of 2.5 million acre-feet of water, nearly twice the size of Roosevelt Lake. (Weather story: B1)**



THE PHOENIX GAZETTE

## LETTERS

# Flooding reminds us we can never truly control water

■Let's hope everyone read *Arizona Underwater*, by Gregory McNamee. His piece in your Sunday Perspective section was the best *precis* of January's flood follies I've seen.

What Mr. McNamee's short but historically accurate account could not pursue were the upstream causes of which the floods are downstream effects. The dams, irrigation schemes and Byzantine water politics of the desert are, in fact, outgrowths of the shortsighted profiteering and careless use practices of timber and grazing interests in the watersheds.

Water seeks its own level, we were taught, but our teachers had not studied Western water politics or they would have known that, in Arizona, water flows toward the rich and powerful. So trusting are we of the governments dams and plumbing system that we build landfills, businesses and even homes where rushing torrents must surely soon race. If you live in a flood plain, and it floods, you're just plain flooded.

We have not learned, in nearly a century of water manipulation and litigation, that we cannot have it all. A dam kept full to subsidize agribusinesses growing crops alien to the desert will fail any flood-control mission. And dams are temporary affectations at best; the day will come when the dam will become Glen Canyon Falls and the masonry of Roosevelt will be but boulders under the rapids of the Salt. And all this may well come to pass before Mr. McNamee's proposal to dismantle dams finds favor in govern-business. After all, there's money to be made.

Eventually, of course, some catastrophe or other may change our philosophy, our infantile need to dominate nature. Eventually, we may learn to live above flood plains, farm natural bottom lands, use water as it comes and protect its sources.

Eventually, all things merge into one, and a river runs through it. We are haunted by water.

Ron Harris
Phoenix

## SRP deserves praise, not flood of innuendos and half-truths

■The Salt River Project has done an excellent job managing its resources and taking prudent action to minimize storm-caused problems. Its staff has consistently updated its forecasting, measuring the notification procedures to the benefit of the Valley. It is helpful to remember the Salt River Project was not built as a primary flood-control system but rather as a waterstorage and distribution system.

James O. Seamans of Phoenix, in his recent letter to the editor, stated, "There are many pieces of incorrect information floating around." He is correct, and I can see from his letter that he is doing a good job of spreading some of that information.

Mr. Seamans paints the Salt River Project as being responsible for all the $65 million flood damage done in 1980. I believe that sum included all the damage done by all the rivers, not just the Salt River. How much of the damage done along the Salt River can be attributed to Salt River Project management errors? Very little, if any.

Groundwater recharge of the magnitude Mr. Seamans refers to would probably turn Buckeye into a lake and not prevent future floods in the process.

Mr. Seamans appears to have issues with the Salt River Project. He would do well to accurately portray the situation, facts and issues of concern rather than flood his argument with innuendo and half-truths.

Ronald T. Wheat
Phoenix

Staff Photo by Oscar Perez

# *Interstate 8 Lanes Closed*

**ARIZONA DEPARTMENT of Public Safety Officer Chris Drummond keeps watch over the Santa Cruz River at Interstate 8 this morning. The eastbound lanes were closed at 10 p.m. Tuesday from Highway 84 to Thornton Road because of water flowing over the freeway. Westbound traffic can still continue to use Interstate 8.**

TRI-VALLEY DISPATCH Casa Grande AZ JAN 20, 1993

# Rains renew worry over dam's safety

By Mike Padgett
THE PHOENIX GAZETTE

Last month's heavy rains in Arizona not only filled the reservoirs on the Salt, Verde and Gila rivers, they renewed concern about the safety of Coolidge Dam, a federal official says.

John Newman, operations manager at the Bureau of Reclamation's Phoenix office, said his agency "had some doubt about Coolidge" as runoff from January's storms filled San Carlos Lake to capacity and sent water flowing out the dam's spillways.

Coolidge Dam is on the Gila River east of the Valley.

The dam, operated by the Bureau of Indian Affairs, is listed as one of the most dangerous in the United States.

The Bureau of Reclamation is supervising repairs on the dam's abutments and spillways under a federal dam modification program.

The dam's peak discharge of nearly 33,000 cubic feet per second occurred Jan. 20. The flow from Coolidge has dropped to about 800 cfs.

The Red Cross reported that of the 101 residences destroyed by flooding in Gila County, many were in the Winkelman Flats area on the river downstream from the dam.

Newman released his agency's preliminary findings Thursday in a monthly meeting of the Central Arizona Water Conservation District's board of directors.

He said repairs on Roosevelt Dam were stopped because the lake's rising waters flooded the work site.

Newman said engineers estimate the flood damage could mean a year's delay in work to enlarge the dam.

The peak water discharge from Roosevelt — 135,000 cfs — occurred Jan. 8. The same day, water flowing into the lake totaled 241,700 cfs. A cubic foot of water is 7.5 gallons.

"Those numbers compare to about a 100-year flood event," Newman said.

PHOENIX GAZETTE

PHOENIX GAZETTE
?

# Storms wash out forest roads, trails

## Early Tonto damage estimate hits $5 million

**By Mike Padgett**
THE PHOENIX GAZETTE

Heavy winter rains caused about $5 million in flood damage to roads, trails and campgrounds in the Tonto National Forest, according to early estimates.

That figure could increase because muddy or snowy conditions have prevented inspections of many areas of the forest.

"We know of some roads that are washed out, and we've already gone in and fixed some others," said Larry Soehlig, lands and minerals staff officer at Tonto National Forest.

U.S. Forest Service spokeswoman Joyce Hassell said more repairs will take place as federal money becomes available and after areas saturated by heavy rains have dried out.

"We have between $1.5 million and $2.5 million flood-eligible repairs to do," she said.

An additional $2 million in damage to fences, roads, culverts and stock ponds is ineligible for the emergency federal money, Hassell said.

"These are preliminary estimates. There might be damages to some places we don't know about," she said. "In some places, we really can't get out there to see it."

Soehlig said one camping area heavily damaged by flooding is Pioneer Pass south of Globe.

Hassell said the road to Pioneer Pass "is completely gone, and part of the campground that was adjacent to the road" is gone.

She said her office is issuing a warning to campers and hikers that because of the flooding, "we're not sure that they're going to find all the roads and the trails as they're marked on our map."

The warning says that parts of some trails have been washed away, while others have sustained varying amounts of erosion.

For details on specific trails and roads, hikers, campers and hunters should check with local ranger stations for up-to-date information on damaged areas and repairs, Hassell said.

"We would hope that anybody going out would check with us first to find what the conditions are, for their own personal safety," Hassell said.

She said boaters should watch for submerged logs and other debris on the Salt and Verde rivers' lakes. The debris was carried into the lakes by heavy stream runoff.

PHOENIX GAZETTE

?

# Melting snow poses new threat on Gila

## Warmer days may yield heavy runoff

**By Mike Padgett**
THE PHOENIX GAZETTE

When does melting snow in the mountains northeast of Phoenix mean more bad news for farmers hundreds of miles away in the Gila River's flooded Wellton-Mohawk Valley east of Yuma?

Now, that's when.

That's because warming temperatures will increase the prospect for heavy runoff from melting mountain snow.

Most of the runoff that in the past two weeks has flooded about 20,000 acres of farms east of Yuma came from heavy rains. Now comes runoff from melting snow that officials say holds record levels of water.

On Wednesday, flooding forced the shutdown of one of three pumping plants that supply irrigation and household water to hundreds of families in the farming belt east of Yuma. The pumping plant was restarted Thursday.

The Gila has flooded several farms and homes. A driver was killed late Sunday when his truck ran into a canal.

This weekend, Wellton-Mohawk Irrigation and Drainage District officials plan to award a contract for a company to take aerial photographs of the flooded farms.

Officials will use the photographs to begin estimating damage to homes, crops, fields, roads, canals and irrigation systems, said Herb Guenther, district assistant manager.

Berta Woodhouse said her home in Roll escaped flooding. She isn't sure when she and her husband, Bob, will return to their home or when river crossings will be reopened.

"It (flooding) got within a quarter-mile of us," she said Friday. "We're not completely comfortable with moving back in our house yet."

She said about 160 of their 1,200 acres were flooded.

Farmer Marvin Marlatt said his home has water in it. He said he's seen his home from the air, but he can't get to it.

"Nobody can get there to find out. It's surrounded by river channels. In fact, there's a river channel flowing up through the front yard right now," he said.

Although the flooding appears to have peaked, the release of water from Painted Rock Dam into the Gila River will stay at 24,000 cubic feet per second until early April, said Jim Lafrenaye, emergency operations center director at the U.S. Corps of Engineers' Phoenix office.

That release could be lowered to about 22,500 cfs about April 10 if the watersheds don't receive more rainfall, he said.

Salt River Project workers are releasing water from SRP's six reservoirs on the Salt and Verde rivers — which drain into the Gila — to make room for snow runoff, spokesman Scott Harelson said.

"We're seeing more snow up there than we've ever seen," Harelson said.

At more than 20 snow-measuring sites in Arizona's mountains, the snow is holding record amounts of water, said Ron Jones, water-supply specialist at the U.S. Soil Conservation Service's Phoenix office.

Jones said the 140 inches of snow measured on Mount Agassiz north of Flagstaff is the deepest recorded in Arizona this year. That translates into about 45 inches of water.

He said 10 inches of "wet snow" contain 3 or 4 inches of water.

The water released from SRP reservoirs eventually ends up in the reservoir behind Painted Rock Dam west of Gila Bend. It is water from that full-to-the-brim reservoir that is flooding farms east of Yuma.

FKI - anne

**My Turn**

Julie Stromberg

# Ecological method of flood control offers advantages

Stream flooding has been in the media spotlight of late. Attention has focused on the destructive actions of floods and on the "success" of flood-control structures in minimizing loss of human lives and property damage.

Missing from this attention has been a discussion of the positive effects of floods on native riparian (riverine) plants; of the negative effects of flood-control structures on riparian ecosystems; and on the role that riparian ecosystems can play in moderating flood impacts.

In addition, we have failed to address the questionable success of flood-control structures.

We have much to gain by exploring alternative ways to work with the environment to help solve human problems and to find a true "win-win" solution.

Floods are natural phenomena. Whenever we interfere with ecological processes and functions, we harm natural ecosystems. The case with flood control is no exception.

Floods are natural phenomena that do many positive things. Rather than perceiving floods in this light, however, we have built dams and impoundments and channelized rivers in an attempt to control floods.

Do flood-control structures work? "Flood control" is an oxymoron. We never completely control natural processes, we only achieve a partial control that gives us a false sense of security.

Because flood-control structures "tame" small floods, we believe that they protect us from all flood waters. The result is extensive home building and development in flood plains.

**'Flood control' is an oxymoron . . . we only achieve a partial control that gives us a false sense of security.**

In truth, however, severe flooding remains a reality on most dammed and regulated rivers. Witness the recent release of record flows into the "normally dry" Gila River, and of the human suffering caused by this failure of our flood-control system.

Flood-control structures also harm riparian plants and animals that live along riverbanks. Native riparian plants and animals depend on flood flows to be sustained.

Floods allow for the establishment of new generations of cottonwood and willow forests along our streams, and do the same for many native desert fishes.

Floods also help native species compete against non-native species such as salt cedar that are now common along many desert rivers. Floods also flush toxins from flood-plain soils, and deposit nutrients for plant growth.

The alternative: work with the environment.

Should we build more and bigger flood-control structures? To do so is to ignore lessons from the past, lessons we learned, for example, when attempting to "control" insect crop damage by applying stronger pesticides rather than seeking solutions that worked in harmony with the environment.

The logical alternative to flood control is to leave the flood plains to plants that are adapted to flooding: cottonwood and willow trees, burro brush and arrowweed shrubs, and screwbean and velvet mesquite trees.

This solution benefits our dwindling riparian forests, and also benefits people. We no longer will lose our homes to floods, and will have recreational opportunities for hiking, bird watching, and finding refuge from summer heat.

To realize this alternative we must provide year-round water for riparian plants. Most dams serve several purposes including flood control and water delivery. We recognize the need for impoundments to supply year-round water to municipalities and farms. However, a portion of the water that would be released for farming or urban use can be released to insure the survivorship of flood-plain vegetation. The benefits of this re-allocation are many.

The river is a product of its watershed. The way we manage our forests and deserts also affects the amount and timing of water flow in rivers. We can minimize flood impacts and increase flow during drought periods by increasing native plant cover on upland areas.

This means not overgrazing uplands (which in some cases means no grazing); reducing paved surface area; and managing forests and shrublands for high plant cover. This will enable the soils to absorb and store more water, and slowly release it to the river during dry periods when water is at more of a premium.

Conclusion: Floods are not necessarily undesirable. Naive riparian species need floods to perpetuate themselves. If we manage our flood plains for riparian forests, the riparian forests will in turn lessen the impacts of floods by slowing flood waters, increasing percolation into the groundwater, and filtering sediment from floodwaters.

We have much to gain by taking an ecological perspective of flood-plain management and by working with the environment and not against it.

To do this, we should: remove homes and buildings from flood plains and replace them with flood adapted native plants; maintain instream flows in our rivers to sustain flood-plain vegetation year round; Manage our upland vegetation so that flash flood watersheds become slow release watershed.

There will be some trade-offs under this scenario, but it may be the wisest overall course of action.

*Julie Stromberg is vice president of the Arizona Riparian Council.*

## Trash bills to rise if landfill closes

MESA — Trash-pickup fees will increase 34 percent for residents and 53 percent for businesses if the Legislature or a court forces Mesa to stop using the Tri-City Landfill.

Residents' monthly trash bills would go up to $16.57, from $12.35.

The City Council got down to numbers in the face of a House bill and a lawsuit that both seek to close the landfill immediately. Offered three options by the city staff, the council chose the one that was cheapest, by a few cents.

Half the city's trash would go to the county's Queen Creek landfill, and the other half would go to the Sky Harbor transfer station for the private Waste Management Landfill.

## SRP pledges $25,000 to Salt River cleanup

The Salt River Project is the first corporate sponsor of the planned Great Salt River Cleanup, scheduled May 22 from 7 a.m. to 1 p.m. along 39 miles of the river from Mesa to Avondale.

The SRP has committed more than $25,000 in cash, staff and other resources to clean up the estimated 3,500 garbage-truck loads of trash and debris that washed downstream from the Tri-City Landfill during January floods.

More information about the cleanup: 207-7777.

PHOENIX GAZETTE
APRIL 6, 1993

# Improve PIR access

I have a personal interest in the roadway leading into the Phoenix International Raceway. Mr. and Mrs. Buddy Jobe are my neighbors. My son and his wife, along with Mr. and Mrs. Tim Duke, are co-owners of the Pro Formance Racing team, located in Chandler. I am a fan of auto racing.

That being said, PIR generates millions of dollars in revenue for the Phoenix area, including Chandler, Mesa and Tempe, in the form of rental cars, food, lodging, gasoline purchases and shopping, as well as tips for services rendered.

The raceway was hampered last year by the flooding of the Verde River, which eroded many acres of valuable parking at the track — not to mention the time taken to enter and exit the raceway by the only available route, Estrella Parkway. Mr. Jobe and his partners did a magnificent job in handling the huge job of directing traffic in and out of the racetrack.

It would be a shame if many of those race fans did not return for this year's racing because of there only being the one entrance/exit. Eighty-five thousand people attended November's NASCAR Winston Cup Series race; that is a lot of racing fans. Very soon the Indy Cars will be in the Valley for their week's stay.

The race track has been at a disadvantage for years due to the narrow roadway and, now that Mr. Jobe has brought many more professional events to the Valley, I hope the Maricopa County Board of Supervisors studies the situation and votes to have a better road and bridge to PIR.

**John H. Dick**
Chandler

GAZETTE 4-6-93

# Residents of flooded area want government to purchase homes

Associated Press

**WINKELMAN**

Flooded out of their homes for the second time in a decade, some people in this remote mining town are calling on the government to buy out homeowners in a riverside neighborhood known as "the flats."

"Our 100-year floods seem to come every 10 years now," state Sen. Peter Rios, D-Dudleyville, said Thursday after touring an area that's been underwater for a week.

Some 350 people have been left temporarily homeless by flooding of the Gila River, and officials said 70 to 90 homes and a few businesses were in water as deep as rooftop level.

Downstream, a natural gas line serving about 1,300 residents and the state prison in Florence was washed out by the river Thursday afternoon, forcing 5,000 state prison inmates to eat cold meals.

State Department of Corrections spokesman Michael Arra said extra blankets were acquired from prisons in Phoenix, Tucson and Globe to keep the Florence inmates warm Thursday night.

Southwest Gas officials said the line was expected to be repaired today.

The river continued to recede today as releases from the overflow spillways of Coolidge Dam were reduced 20 miles upriver.

Lighter-than-expected rain meant no new flooding in Arizona, and the National Weather Service said scattered showers should prevail over most of the state through Saturday. But a new round of storms headed in from Oregon could hit Sunday night or early Monday, renewing the flooding threat, the weather service said. A brief hard storm with hail hit the northern part of Phoenix late Thursday, but quickly dissipated.

Stream flooding was possible in much of the state and flooding is possible the length of the Gila River from near the New Mexico line to Painted Rock Dam west of Gila Bend, the weather service said.

At least 850 homes statewide have been damaged in flooding that began last week, according to the Red Cross. Gov. Fife Symington has declared a flood emergency and released $100,000 from a contingency fund for first-aid measures like emergency housing.

In Winkelman, about 40 families took shelter in the high school gym and a dozen more in a senior citizen's center in nearby Hayden. About 60 troops from the Air National Guard helped patrol the streets to keep people from flooded neighborhoods and stood by to help delivering food and equipment and to move people back home when the water goes down.

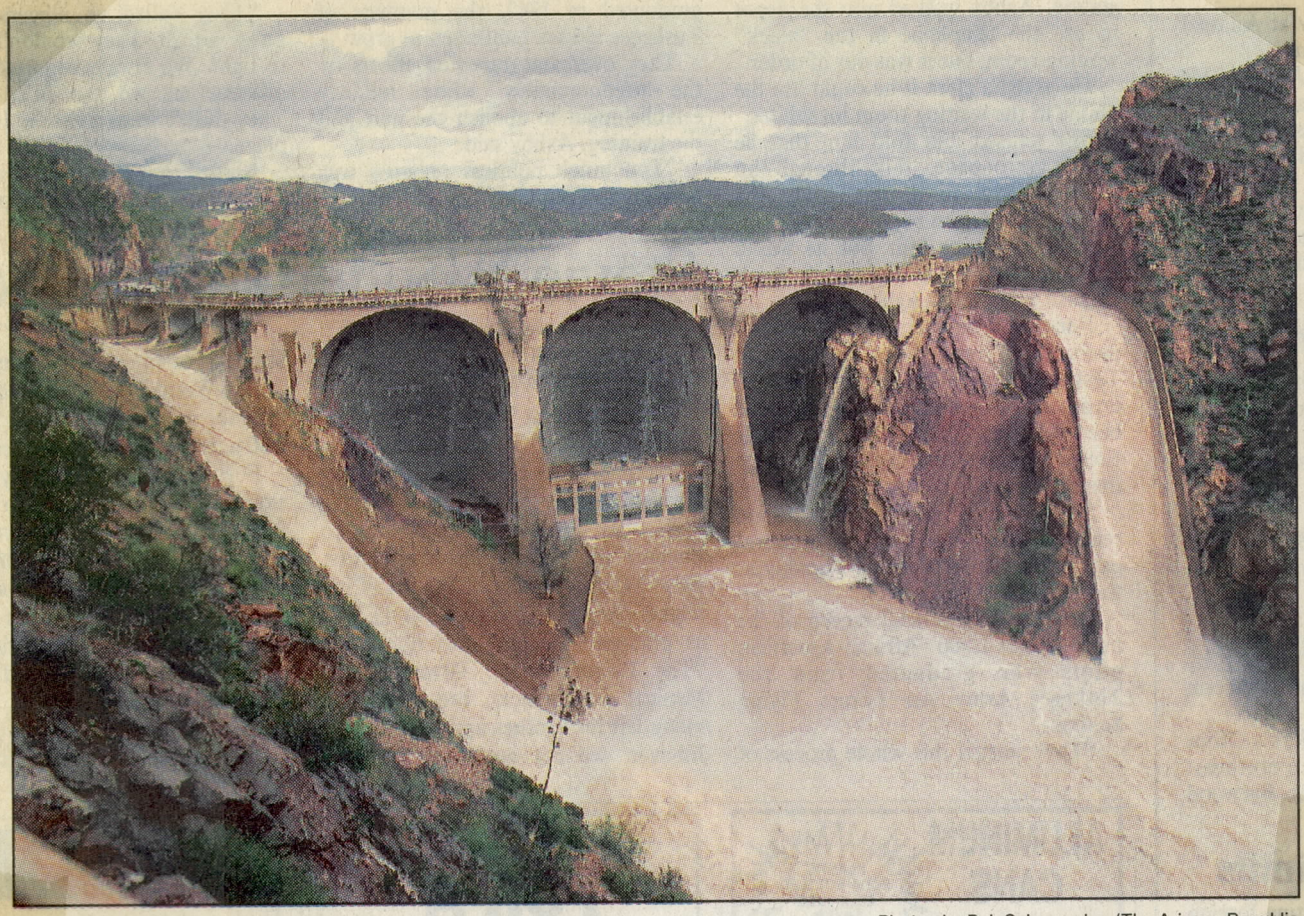
U.S. Rep. Karan English, D-Ariz., who toured the area with Rios, said she would ask the president to declare a disaster, freeing up federal money for low-interest loans and other assistance.

Rios said the present flood, which hit the same area as high water in 1983, demonstrates a possible need for federal assistance.

"What we're going to need when all is said and done is help from the feds, Small Business Administration, relocation and possibly even a buyout," he said.

The area called Winkelman Flats, which lies below the bluff that holds most of the town of 1,000, is similar to others in Arizona where the government has moved homeowners to avoid repeated disaster payments, he said.

ARIZONA REPUBLIC JAN. 15, 1993



Photos by Rob Schumacher/The Arizona Republic

Water cascades down the spillways at Coolidge Dam, which has been called one of the five most dangerous dams in the nation.

# Coolidge Dam still up

## 'It is not going to fail,' BIA safety coordinator says

**By Steve Yozwiak**
The Arizona Republic

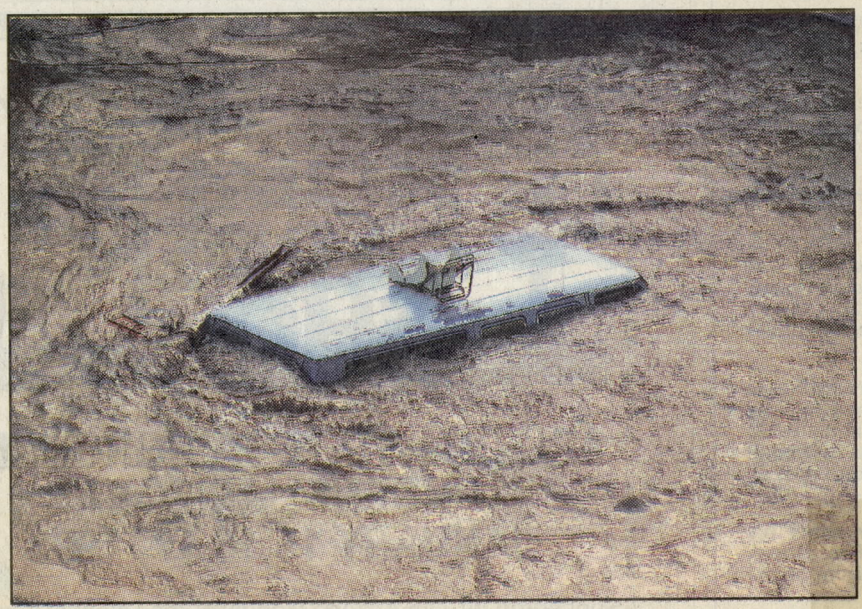
Though they sat on a purported powder keg, it was just another day at the beach Thursday for operators of 65-year-old Coolidge Dam.

Despite record flows this week crashing down the spillways of what has been called one of the five most dangerous dams in the nation, operators were unconcerned. They contend that past reports about the dam's safety were just a ruse to get federal funding for reconstruction.

"It is not going to fail," said Ken Clouser, dam-safety coordinator for the federal Bureau of Indian Affairs, which manages the dam.

Four years ago, a federal Bureau of Reclamation report called Coolidge Dam "a real and imminent hazard," and predicted that "failure is . . . highly probable."

— *See* **COOLIDGE DAM,** *page B4*



In the Winkelman Flats area, a car seat stays dry on a van's roof. About 300 people evacuated last week from the area remained Thursday with friends or in shelters.

FINAL EDITION

# THE ARIZONA REPUBLIC

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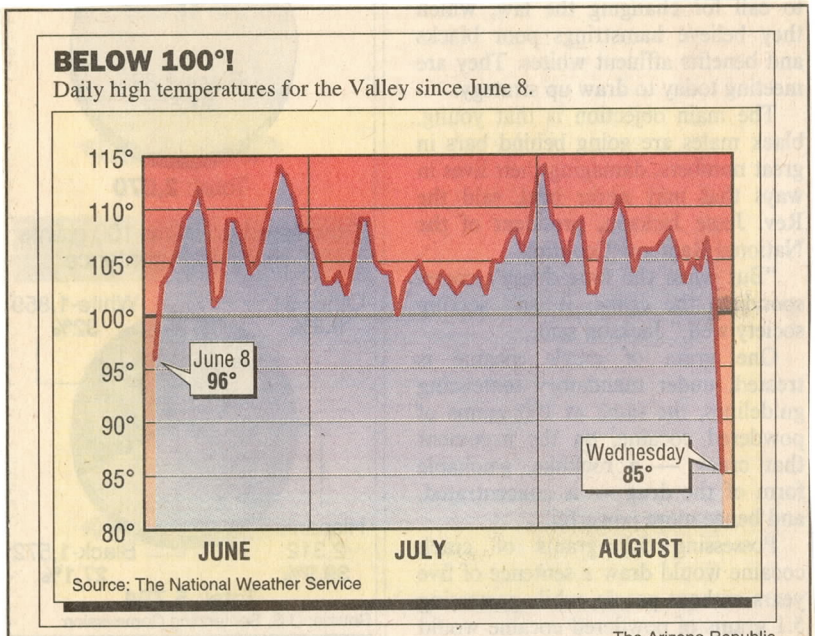
Thursday, August 26, 1993 ★★ Phoenix, Arizona C 104th year, No. 100




# Storm gives Valley change for a 100

## Record hot streak ends at 76 days

**By Clint Williams**
The Arizona Republic

Like a mooching second cousin from out of town, 100 degrees arrived in Phoenix on June 10 and *would not leave.*

Until . . . whew, finally . . . Wednesday, when heavy cloud cover from a flash-in-the-pan tropical storm helped break the longest hot streak the city has ever endured.

An official high temperature of 85 snipped a string of 76 consecutive days of 100 degrees and higher. The old record of 64 days was set June 7 through Aug. 9 in 1989.

Forecasters expected the streak to end Wednesday, "but it was cooler than we thought it would be," said Bob Berkovitz of the National Weather Service in Phoenix.

The day was record-setting cool, in fact. The high temperature of 85 logged at Sky Harbor International Airport was a record for lowest maximum temperature for the date. The previous record was 93 degrees, last equalled in 1963.

Overnight showers — 0.02 inch of rain at Sky Harbor — and cloudy skies were caused by remnants of Tropical Storm Irwin,

— *See* **PHOENIX,** *page A9*

# Fleeting storm ends record heat streak

— **FLEETING,** *from page A1*

which formed and broke apart in a day off Mexico, Berkovitz said.

Tropical Storm Hillary to the north "took over all Irwin's strength," he said.

That storm may prove troublesome for Arizona.

At midday Wednesday, Hillary's center was about 500 miles south of Yuma and just off the Baja Peninsula. The storm was moving northward and may cross the peninsula into the Gulf of California, Berkovitz said.

By Saturday, the storm center is expected to be just south of Yuma, producing heavy rain in Arizona.

The Weather Service's forecast for the Phoenix area today and Friday calls for a 30 to 40 percent chance of showers and thunderstorms. High temperatures both days are expected to be in the mid-90s.

# Gila River crests, but fields to remain flooded

## Up to 50 homes sustain damage

By Arthur H. Rotstein
The Associated Press

WELLTON — The flood in southwestern Arizona has peaked, but the end is nowhere in sight for farmers and residents who must live with a Gila River that's expected to run far outside its banks for many weeks.

"Whatever's flooded now is pretty much going to stay flooded," George Humphrey, Yuma County's acting emergency management director, said Thursday. "I can't say that somebody sitting out there up to their knees in water is thankful. But their neighbors up on a little higher ground, I'm sure they are."

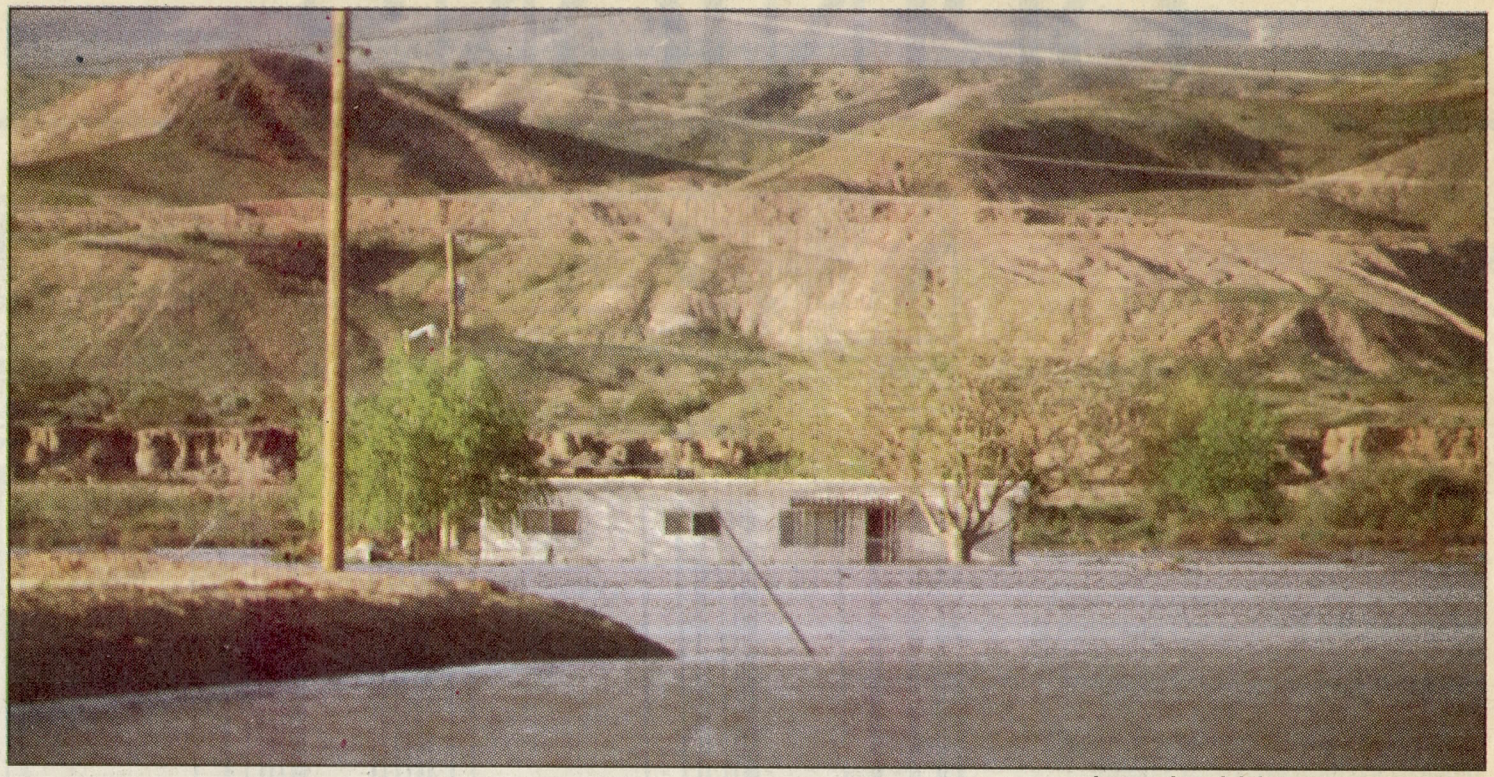
The river crested Thursday, and residents of the produce-rich area now face thousands of acres of flooded fields, dozens of ruined homes and a county split in half by bridge closures.

County officials have been unable to make precise damage tallies, but estimate that 40 to 50 houses are flooded, along with an uncounted number of farm outbuildings, Humphrey said.

The flood is blamed for one death. A truck driver crashed into an irrigation canal Sunday while hauling rock to build an emergency dike.

Authorities have transported two people to the Yuma hospital, a woman from Roll with appendicitis and an elderly Hyder man who was injured in a fall.

The flood peak passed through Dome, the last stop in the Gila's 90-mile run from the Painted Rock Dam, and then moved down the Colorado River past Yuma, the National Weather Service reported Thursday.



Lenny Ignelzi / The Associated Press

**Gila River floodwaters engulf a house near Wellton as flows continue at 24,000 cubic feet per second.**

Although the flow from the dam peaked at about half the amount planners had predicted, water will continue to pour down the normally dry river for a month at nearly the peak level and remain high for weeks longer.

At midweek the Wellton-Mohawk Irrigation and Drainage District, which encompasses 65,000 acres of farmland along 50 miles of the Gila, estimated that 15,000 to 18,000 acres of fields were underwater.

Flooding has spread since that rough estimate was made.

County officials have urged 3,500 people to evacuate along the Gila and say most appear to have complied. Still, hundreds have chosen to stay north of the river, stranded unless they drive hours out of the way to get on the south side of the Gila.

High water has closed all nine bridges that span the lower Gila and washed out some 80 grade-level crossings, cutting off the northern part of the county from Interstate 8.

As the river flow stabilizes, experts from the Army Corps of Engineers are being brought in to see if it would be possible to use pontoon bridges to reopen some of the bridges, Humphrey said.

One bridge near Yuma, the Avenue 7E bridge, might be possible to reopen even as flows continue to be high, he said.

Flows from the dam, which peaked Saturday at 26,000 cubic feet per second, were running at 24,000 cfs Thursday.

The flows are expected to remain at that level for a month, then drop to 22,500 for some time, according to the corps.

ARIZONA REPUBLIC JAN. 19, 1993

# Teen girl pulled from raging waters

## Firemen risk swim without rescue gear at N. Phoenix park

**By Susan Leonard**
The Arizona Republic

A teen-ager who walked around a barricade Monday afternoon was swept into a rain-swollen retention basin at a north Phoenix park, but she was rescued by firefighters who swam out to her.

Heather Bartholomew, 15, was exhausted, cold and scared after she was pulled from a normally dry retention basin in Cave Creek Park, but she seemed all right otherwise, authorities said.

"They undoubtedly saved her life," fire Capt. Peter Lynch said.

He said firefighters Gary Lawrence and Mike Balesco swam out to save Bartholomew, even though they didn't have flotation devices or safety lines with them.

"It was unusually heroic," fire Capt. John Mure said.

"Normally, we don't go in without protective equipment, but their engine didn't have any. When they saw her out there, they went with their gut instinct and went out and got her.

"Luckily, there wasn't any swift water, or they could have been endangered, too."

Bystanders called firefighters about 5:20 p.m. after Bartholomew walked around a barricade in front of a flooded sidewalk at the park and "got swept off her feet" by water rushing down an 8-foot embankment into the retention basin, Lynch said.

When firefighters arrived, her head "was barely above water, and (she) was crying for help about 150 feet off shore," he said.

"She was trying to keep her head over the water," Battlion Chief Al Sipes added. "It was so deep that she couldn't even stand up."

Sipes said the retention basin ordinarily is dry and grassy, but the rain-swollen Cave Creek Wash runs through it, so it lately has resembled a small lake.

Firefighters had a little trouble removing Bartholomew from the park, which is near 25th Avenue just north of Cactus Road, because their ambulance got stuck in mud near the water's edge.

A second ambulance took Bartholomew to John C. Lincoln Hospital & Health Center, where she was treated and released.

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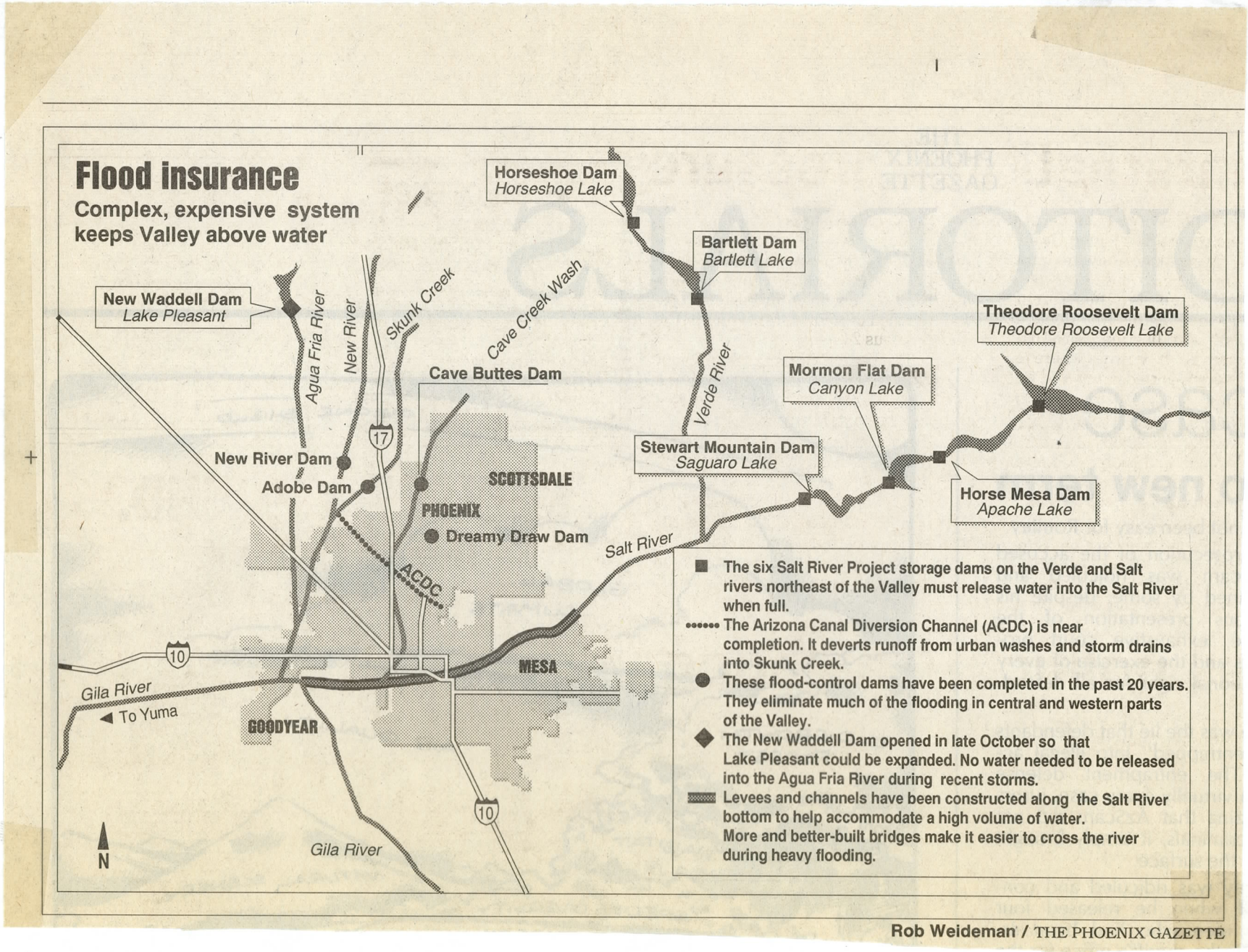
PHOENIX GAZETTE JAN. 11, 1993




Rob Weideman / THE PHOENIX GAZETTE

# Victims weren't reckless

Recently, Finis Taylor and Jim Wilson lost their lives in a canoeing accident on the Salt River in Tempe. The news coverage stressed the danger of the river, the fences, the warning signs and the previous accidents there.

I'm concerned that the negative news coverage may cause their friends, patients, parents who trusted Boy Scouts to their care and even family members not just to doubt their decision to be on the river that day, but also to reassess their respect and admiration for the men. These men were not reckless.

My friend Finis Taylor was a cautious, careful man who was conservative in his medical treatments, put safety first with the Boy Scouts and always chose the safest cars to protect his family. Finis would never have put himself in danger.

So why was he on the river that day?

Finis was an experienced canoeist who knew that the Salt River was dangerous when it was surging, and he and his friends had waited for the flow to reduce to a safe level for canoeing.

The river was not overly rough and they had no problems with the water currents until they came to the hydraulic, which they did not know existed and could not see until they were upon it.

Unlike a natural waterfall, the hydraulic was not preceded by whitecaps. Despite what officials have said, at Country Club Drive where they entered the water there were no warning signs or fences, and there were no signs on the river warning them of the upcoming hydraulic. If there had been, they would not have been on the river, or would have gotten out.

Finis and Jim lost their lives because of a man-made hydraulic and because of their lack of knowledge of its existence.

I want the community, their patients, friends, and especially their children, not to let the cause of their deaths diminish the respect they deserve for the quality of lives they led.

They were good doctors, husbands, fathers, Boy Scout leaders, and friends, and should be remembered for the good that they did for all those whose lives they touched.

Mary Benin
Tempe

May 12, 1993 Mesa Tribune

Tribune Newspapers, Saturday, March 27, 1993

# City, state to weigh river safety

## Drownings underscore dangers

By Jeffrey Crane
Tribune writer

Three deaths in the last year in the swollen Salt River in Tempe have left little doubt of the waterway's power to kill.

The unwanted reminder came Thursday, when a dentist and a doctor from Tempe died in the Salt during a canoe expedition in the same turbulent waters where another Tempean drowned a year ago.

Authorities pulled the bodies of Dr. James Wilson and Dr. Finis Taylor from the Salt late Thursday afternoon, downstream from a flood control hydraulic. The hydraulic, which creates a 15-feet deep, powerful undertow, had separated the two men from their canoe at about noon.

During the search and immediately following the discovery of the bodies, Tempe, the Arizona Department of Transportation and the Maricopa County Flood Control District discussed the dangers along the river.

All have the same message.

The river is dangerous — stay out of the river.

"No one is trying to point fingers about who's to blame, because we all know this is a collective problem," said Tempe City Attorney Dave Merkel. "We don't want these adverse consequences to happen again, and it certainly is not a desirable situation.

"We have to figure out ways to try to (eliminate) the potential for risk."

The three governmental groups will meet Monday to determine what measures can be taken to avoid another tragedy.

Merkel and Jim Phipps, public information officer for the flood control district, said engineers will meet to discuss the possibility of modifying the structure and looking at safer alternatives.

"It's impossible to put up fences, and maybe we'll put warning signs all the way up the river," Phipps said. "Right now, there are 12 signs along the river, but maybe there wasn't one at the right spot."

The orange, 5-by-8-foot signs are installed as far east as Alma School Road, and fences have been placed at various entry locations on the waterway.

Those measures were taken last year after 26-year-old Brian Trenary drowned in the same location.

Wilson, a dentist at Williams Air Force Base, and Taylor, a physician in Tempe, began their trip with two other canoeists about 10:30 a.m. near Country Club Drive in Mesa.

The journey apparently went smoothly until they hit Hayden Road. About 30 yards from the Hayden Road Bridge is the hydraulic.

"The thing about this is, is that the hydraulic structure is doing exactly what it's sup-

Please see **Drownings / B6**

## Drownings

From page B1

posed to do," Merkel said. "But at a certain velocity of the water, the turbulence, the eddying, that begins. That happened yesterday (Thursday) and before."

Officials said that at a flow rate of between 5,000 to 8,000 cubic feet per second, the water's velocity is such that the concrete structure develops the violent, swirling undertow that trapped its three victims.

Another variable, Phipps said, is that the width of the river has been narrowed for a construction project by ADOT on the north end of the hydraulic structure. That forced about twice as much water over the wall as will pass through when the Rio Salado channelization process is complete.

"The water will be spread out over a much larger area and not detoured over the hydraulic," Phipps said. "Once the construction is done by ADOT, the water will be more shallow."

Officials with ADOT said the construction project may be completed by the end of the year, depending on when the river goes dry. The rest of the channeling can then be finished in about six months.

# Gas line explodes under Gila River

By Russ Hemphill
THE PHOENIX GAZETTE

A natural gas line under the turbulent Gila River exploded Tuesday night, sending flames hundreds of feet into the sky.

The blaze southwest of Buckeye was seen by air traffic controllers at Sky Harbor International Airport, travelers on Interstate 10 and startled far West Valley residents.

Norma Dunn, an El Paso Natural Gas spokeswoman, said the river flow may have damaged the gas line.

But she said investigators would not know for sure until they could examine the pipeline, which is just south of Gillespie Dam.

Norm Cooper, assistant chief of the Buckeye Fire Department, said the leaking gas was ignited by static electricity from high-voltage power lines near the river.

"We've been having some problems with the floods there," Dunn said, noting Gila River currents last week broke a high-pressure gas line at the site of Tuesday's explosion.

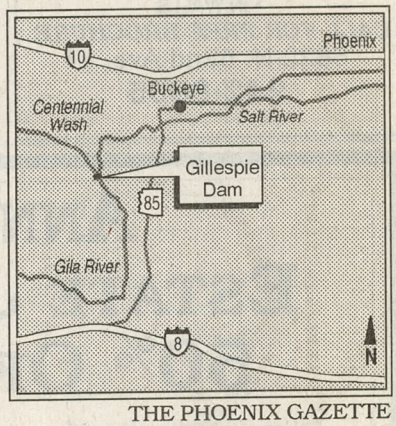
El Paso noticed the drop in pressure, closed that line and rerouted gas into a low-pressure line, she said.

Tuesday's break apparently was too sudden for El Paso to react.

"We saw a massive fireball in the sky, hundreds of feet high. It lit everything and everywhere up," said Thomas Somics, who was driving west on I-10 when the explosion occurred about 11 p.m.

"It was spectacular. Better than any fireworks that I've seen," Somics said. "I thought it was the nuclear plant (Palo Verde Nuclear Generating Station)."

Buckeye Rural Fire Department firefighters raced to the scene but could do little to fight the towering flames.



THE PHOENIX GAZETTE

The fire, which erupted from the roiling river, burned for about an hour when El Paso workers turned off the gas.

"You can see it from everywhere," said Willie Atkinson, a Buckeye police dispatcher.

Atkinson said he received phone calls from Casa Grande, the northwest Valley and nearby residents.

"It was scary to a lot of people because they thought it was the power plant that went," Atkinson said. "They could see it for miles and they knew it had to be something bad."

There were no reported injuries although authorities were considering evacuations of area residents before the flame was extinguished.

Federal, state and El Paso gas investigators are expected to investigate the remains of the gas line.

The damaged gas lines are among several carrying up to 900 million cubic feet of gas a day to California.

*Includes information from reporter Ray Schultze.*

# LETTERS

## Orme Dam needed

When warm rains hit deep snowdrifts above the Mogollon Rim, Salt River floods are inevitable. The recent flooding could be only a minor skirmish if right conditions prevail.

Building Orme Dam as a flood control dam is the only responsible solution.

Roosevelt Dam was first planned, not only for irrigation, but for flood control.

With greater populations in the Valley, Orme Dam is now more necessary than ever.

**Jack Williams**
**Member**
**Central Arizona Water**
**Conservation District Board**
Phoenix

## Landfills haunt us

The picture in *The Gazette* Jan. 11 of the trash in the Salt River only verifies what my fears have been, of all the landfills returning to haunt us.

The situation makes one wonder how the decision was made to locate this landfill on the bank of the Salt River at all. It also reinforces the fact that the EPA is just one more huge bureaucratic department that has no idea what its purpose or concern for the environment is.

The suggested remedy now is to build a berm to contain any future catastrophe like the present one. Isn't that the same as locking the barn door after the horse has been stolen?

In order to prevent this disaster from happening elsewhere, someone should be called on the carpet.

Who will be responsible for the clean-up? Guess.

I am not a resident of Phoenix; I am here visiting my family. But I am very concerned that this could happen anywhere.

This mistake should deeply concern all of us. The caretaker has really gone to sleep on this one!

**Dale E. Poppe**
Greene, Iowa

ARIZONA REPUBLIC JAN. 10, 1993

# Floods to have little effect on crops, officials say

The Associated Press

Agriculture authorities in Arizona said recent rain and floods will have little effect on crops beyond nuisance levels, because the cotton crop is already in and the winter citrus and vegetable harvests are still weeks away.

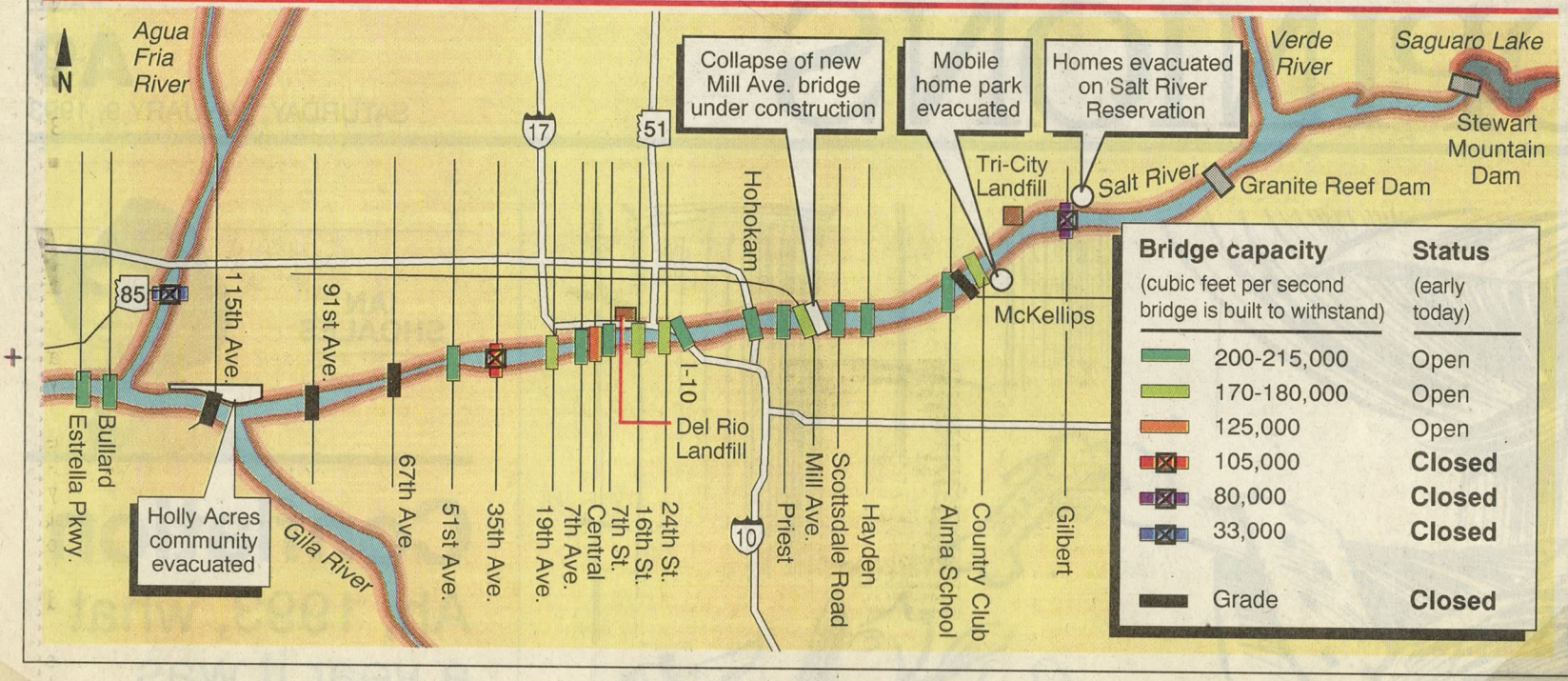
"There's nothing major going on right now," said Jeff David of the Arizona Farm Bureau.

Yuma County's extension agent, Mark Wilcox, said the bad weather "doesn't hurt anything" but does add to the cost and difficulty of producing 25,000 acres of lettuce and 5,000 acres each of broccoli and cauliflower.

It might even be good news, Wilcox added.

"Usually when it rains around here, it means the price of everything goes up," he said.

# Valley river crossings




THE PHOENIX GAZETTE

ARIZONA REPUBLIC JAN. 16, 1993

# Dry and dry again: Rain-related woes need attention

As rainstorms keep coming in waves, desert residents probably are wondering what this extraordinary amount of water is doing to their homes, yards and swimming pools.

Will our houses settle into the soggy soils and crack open? Will the rain wear down our roofs? Will moss start growing on cactuses? And what about those swimming pools that have been overflowing almost weekly?

The most devilish rain-related problem to solve is leaks in your ceiling or walls.

Looking for a leak can be like looking for a cricket. You can't tell where it's coming from.

"Leaks in walls are more difficult because water doesn't travel in a straight path," said Dave Swartz, operations manager and inspector for Semmens and Associates, a Phoenix civil and structural engineering firm.

But actually, the best time to determine whether there are leaks in your house is during or after a rainstorm because you have the best chances of finding where it is getting in, he said.

The best way to check your roof is to climb up into your attic with a good flashlight and check for dripping water or moist spots.

You also can walk the roof and look for cracks in the roofing material or shrunken or cracked caulking. Look especially in valleys, flat places or around anything that sticks up, such as exhaust pipes, the chimney or the refrigeration-heating unit.

— See **RAIN-RELATED,** *page E2*

— **RAIN-RELATED,** *from page E1*

Some houses have flat roofs and outside walls that are higher than the roofs. It is common to find leaks where the walls and the roof meet, because the stucco may have cracked, Swartz said.

Another common way for water to get into a house is around flush-mounted windows where the caulking has cracked or shrunk.

A bead of caulking or glop of roofing cement or tar may fix the leak. Or it may be time to have your roof redone, especially if the asphalt shingles are brittle and showing lots of bare spots.

If you find that water continues to puddle near your doors or near the house, it's probably because your landscaping has been improperly graded. Or your swimming pool decking may be letting it puddle, Swartz said. Landscaping should be designed so that water drains away from a house.

The most severe and expensive problem for a house is when the foundation settles or cracks. The foundation is the concrete slab on which a house sits.

Swartz said that is more likely when houses are built on clay or expanded soils or where the soil may not have been properly compacted before the house was built. Major builders probably have done this correctly, so the problem is more likely to develop with custom-built or older homes.

The best way to check for a foundation crack is to examine the base around the outside of your house, looking for cracks that are at least a sixteenth of an inch wide, he said.

Finding more than one crack is a cause for concern. You might want to just keep an eye on it and perhaps put tape on it to see whether it grows. It may be prudent to call several licensed structural engineers and get estimates for what an inspection would cost.

## Plant damage

One extended part of your home probably is grinning with glee because of all this rain. That's your yard and garden, especially all the germinating baby weeds.

Most arid plants should hold up well, except for those that need good drainage, such as agaves and other succulents. They may be drowning and about to rot to death, especially if they were planted under the gutter spout or in dense soils, horticulturists say. They should be planted in sandier soils in areas with good drainage.

Fatal funguses may overtake other plants, such as penstemons, said Mary Irish, public horticulturist at the Desert Botanical Garden.

Steve Carter, a horticulturist with the Boyce Thompson Southwestern Arboretum near Superior, also said some plants such as prickly pears and saguaros may take in too much water and get too heavy. Some pads may drop off prickly pears. And saguaros can get so top-heavy they topple over in a strong wind.

"They keep taking in water. They don't know when to stop," he said.

Irish said she has seen some saguaros in danger of falling over because they are on hills, and the ground under them is eroding. Be careful when walking around such cactuses because they can be as heavy as boulders.

Swimming pools also need special care. You need to especially watch the chemistry because all the rainwater and wind-blown debris and dirt can quickly unbalance the water, said Greg Garrett, operations manager for the customer-service division of Shasta Industries in Phoenix. If the weather suddenly warms and the chlorine has been depleted, you may find a fresh crop of green algae in the pool, even though that is typically more of a summer problem than a winter one.

Pool owners also have discovered that it has been tricky trying to maintain the correct water level in the pool. Ideally, the top of the water should be a few inches from the top of the pool, but several storms have dropped several inches of water in a short time, causing pools to overflow..

If the water gets too high or overflows, it can get under the pool decking and cause some structural cracking later, Garrett said. You'll have to back-flush the pool repeatedly to keep the correct level.

You also need to make sure the motor to your pool-cleaning system is not buried in water, or it could fry the motor. Garrett said some people have had to dig trenches to drain standing water away from their pool motors or build berms to protect them. You also can rent a submersible pump to extract water from near the motor.

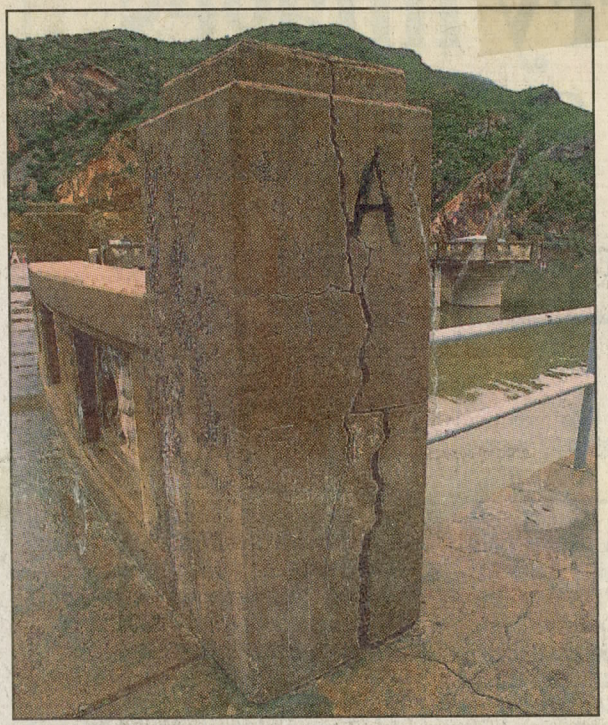
If you've noticed any of these problems — leaky roofs, cracked walls, poorly drained plants or buried pool motors — you've probably already decided you need to do some improvements.

If it would just stop raining.

AZ. REPUBLIC JAN. 15, 1993

# Coolidge Dam still holding

For Coolidge Dam worker Jimmy Kniffin (right), record flows this week have brought a bonus. Kniffin pulled a catfish weighing about 30 pounds from a puddle near the dam Thursday as waters receded. Although the dam has been called one of the five most dangerous in the nation, workers are not too concerned. They have kept a close eye on the cracks (far right), but are sure the structure won't fail. **Story, B1; Arizona weather, A16.**



Photos by Rob Schumacher/The Arizona Republic

BIA official Jerry Hearty says, "Sure, we've got some concerns about the dam. But that's just like saying you've got a concern about the . . . tire on your car losing a little air."

The Arizona Republic Friday, January 15, 1993

# Salt's banks to be 'armored' at landfill

**By Steve Yozwiak**
The Arizona Republic

A plan to seal off the Tri-City Landfill to prevent the flood-swollen Salt River from carrying trash downstream was announced Thursday by Ed Fox, director of the state Department of Environmental Quality.

Fox said the Salt River Pima-Maricopa Indian Community, which runs the landfill serving Scottsdale and Mesa, and the U.S. Army Corps of Engineers, which is responsible for protecting federal rivers, have agreed on a plan that also has the approval of the Maricopa County Flood Control District.

He said the plan calls for the tribe to continue building an emergency dike; for an interim "armoring" of the riverbanks this summer after the river recedes; and for a permanent hardening of the banks by mid-1994.

However, if flows similar to the 124,000 cubic feet per second that blasted through the Valley on Friday return again next winter, the interim banking likely will give way again, Fox said, because the plan calls for the interim banks to be able to survive only up to 70,000 cfs.

"There is that possibility," said Fox, who has worked to bring the parties together despite the state's lack of jurisdiction over Indian lands.

However, Fox said it is "physically almost impossible" to create a permanent channel in the river along the troubled landfill before mid-1994.

An interim bank constructed by the tribe and the corps last year was only made to withstand flows of up to 45,000 cfs. It gave way during the past week.

The tribe has been in violation of the federal Clean Water Act since last year, when relatively minor releases from Salt River Project dams eroded the landfill, according to a citation to be issued to the tribe by the corps.

In the past week, with releases five times higher than last year, the river dragged enough garbage downstream through Phoenix to fill more than 3,500 garbage trucks.

# Earlier floods created grief for motorists, homeowners

By Victor Dricks
THE PHOENIX GAZETTE

Since 1978, three massive floods have soaked the Valley, causing $177 million in damage to homes and businesses, washing out bridges, and leaving thousands of residents temporarily homeless.

Although the Valley gets an average of only 7 inches of rain annually, events of the past week demonstrate it is not immune to the caprices of nature.

The Valley is a drainage for 50,000 square miles. When it rains heavily, we get runoff from most of the state and parts of New Mexico.

The "granddaddy of all floods" — the most severe in Maricopa County on record — occurred in 1891, sending 300,000 cubic feet per second of water roaring down the Salt River. It prompted local farmers to pool their resources and form a flood control district. Within 10 years, they started damming the Salt River.

Those efforts did little to protect the Valley from the fury unleashed by Mother Nature three times over the past 15 years. The speed and volume of storm runoff take many people by surprise here, said Susan Fitzgerald, a spokeswoman for the Maricopa County Flood Control District.

■ In February and March of 1978, floodwaters along the Salt River washed out an Interstate 17 bridge of the Agua Fria River and killed six people. The only city bridge that remained open during the flooding was the Central Avenue Bridge, which sustained heavy damage.

■ In December 1978, another storm caused extensive damage along the Salt River, including losses to sand and gravel operations along the banks of the river.

The two storms caused an estimated $113 million damage, according to the Arizona Department of Transportation.

■ In 1980, a storm so severe it might be expected to occur only once every 100 years caused $63.7 million damage in the Valley, including income loss and emergency services. The storm forced hundreds of people from their homes and left three dead.

Salt River Project officials were forced to release water into the Salt River to protect Stewart Mountain Dam from collapsing after the Army Corps of Engineers found sections of the concrete were "unbonding." These releases caused massive traffic snarls and prompted a review of flood-control programs.

# Flood control system worked

**Sure, this week's floods have been bad. But . . . remember what it was like a dozen and more years ago?**

PHOENIX GAZETTE
JAN. 14, 1993

Not long ago, rainstorms like the ones we've had over the past week would have paralyzed the Valley for months. In fact, they did.

Remember the storms of 1978, 1979 and 1980? Devastation touched all portions of the Valley. No matter where they lived, residents and workers were forced to alter their lives to accommodate the storm and the destruction it caused.

Except for the sturdy old Mill Avenue Bridge, motorists couldn't cross the Salt River. Even the freeway bridge over the Salt was closed. River crossings in the busiest parts of town were submerged by rising, raging waters.

Longtime residents remember when torrents of water rushed down Central Avenue and the irrigation canals overflowed, creating lakes out of parking lots, streets and private homes. Homeowners well distant from the banks of the Salt River were digging out from the storms back then.

But not now.

Overlooked in the week's headlines was the real progress made in the Phoenix metropolitan area.

Yes, Holly Acres and New River were flooded out. The Tri-City Landfill eroded its banks and sent tons of garbage down the swollen, muddy Salt River. In out-county Arizona, residents of Winkelman, Duncan and Tucson still brace for more high water and damage. But Phoenix is, by and large, dry.

Traffic flowed unimpeded over Seventh Street, Seventh Avenue, 32nd Steet and Country Club, none of which was passable a dozen years ago.

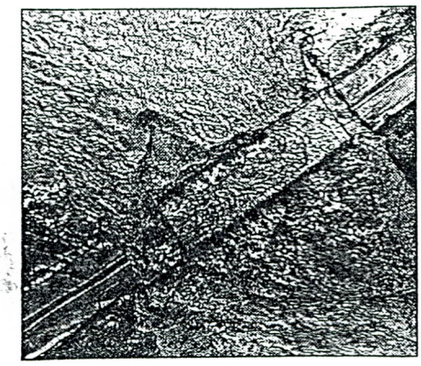
The New Waddell Dam, a Plan VI water storage and flood control cost-sharing project, was completed a few months ago. The recent rains have filled up an expanding new Lake Pleasant. It held back any releases into the Agua Fria River, thus protecting northwest Valley residents.

Three Maricopa County Flood Control District dams, the New River Dam, the Cave Buttes Dam and the Adobe Dam, along with the controversial Arizona Canal Diversion Channel, have kept north central Phoenix residents from lifting a sand bag or filing many flood insurance claims. Billions of gallons of rain and runoff were diverted from the city.

The hated ACDC, the concrete ditch bisecting north Phoenix, carried millions of gallons of water — it was seven feet deep earlier this week at Cave Creek and Cactus — 17 miles across the city, keeping canals and washes from overflowing.

Indian Bend Wash has worked like a charm for Scottsdale.

In 1980, all three rivers overflowed. This time, the Agua Fria was held back by New Waddell Dam. Flows on the Verde were captured by Bartlett and Horseshoe dams. Federal dam safety legislation built a new spillway at the once precarious Stewart Mountain Dam, giving SRP officials additional control over releases.



**This is what it was like in 1978 at 32nd Street and the Salt River.**

The flood-control system, including sturdier bridges, dams, channelization efforts, and rain-monitoring equipment, is the result of half a dozen federal, state and local agencies, including the Salt River Project.

In the words of Stanley Smith, acting chief engineer of the Maricopa County Flood Control District, the system has worked "fantastically."

An estimated 100 billion gallons of water poured through the Salt River Valley last week — that was before Tuesday and Wednesday's rainfall. And most of it ended up where it was supposed to.

In the Sonoran desert, where water brings progress and prosperity, we sometimes overlook the ravages too much water can deliver. Winters like this one serve as reminders.

Last year, the Maricopa County Board of Supervisors lowered the county flood control tax. Residents rejoiced. It made good politics. But wise officials cannot ignore, even in an election year, that funds flowing into the Maricopa County Flood Control District, keep runoff and storm water out of homes and businesses. They keep the Valley moving no matter the weather.

Sober county leaders will continue intelligent land use planning and rational, cost-effective projects sought by the Maricopa County Flood Control District.

There is still much to be accomplished: Channelization of the Salt east of McClintock Road in Tempe; an improved Cave Creek Channel from Bell Road to Beardsley Road in north Phoenix, perhaps Phoenix's most troublesome residential flooding area.

Flood control works. It's the reason we're driving around so easily this week. It's the reason so few of us needed sand bags. Or flood insurance forms.

TEMPE TRIBUNE JAN. 10, 1993



**State of emergency** | **The flood of 1993**

# Planned dams could have eased Valley flooding

**By Patricia Likens**
Tribune writer

Flooding throughout the Valley Friday could have been reduced had dams proposed in the last two decades been built, officials said Saturday.

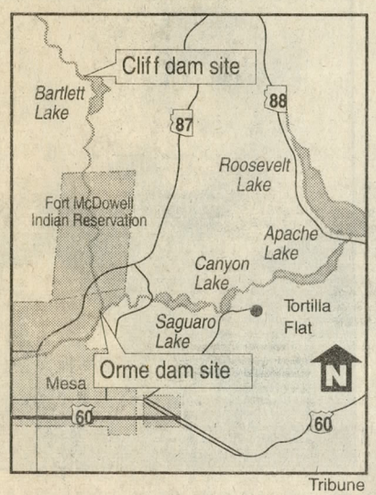
But the lessons learned after floods in the 1980s did help mitigate water problems, they added.

In the past 20 years, several dam sites have been proposed to alleviate the load of water carried into the Valley by the Salt River. But high costs, environmentalists and residents of an Indian community have stopped those plans that many believe would have eased flooding.

The series of dams already in place and operated by Salt River Project are designed for water storage, not flood control.

Orme Dam, proposed in 1976 and again in the early 1980s, was to be the flood control structure for the Salt and Verde rivers. Built at the confluence of the two rivers, it would have regulated flows into the Valley.

However, the reservoir would have inundated a majority of the Fort McDowell Mohave-Apache Indian Community located north of Mesa, as well as bald eagle nesting areas.



Tribune

"The loss of our land was our biggest concern. We would have had no control of our land," said Tribal President Clinton Pattea, whose tribe fought and won their battle against Orme Dam proponents in 1983.

The federal government planned to compensate the tribe for some of its land loss with land from the Tonto National Forest.

Ten years and a few winter rainstorms later, officials still say a dam is needed to to tame the rampaging rivers.

"Orme Dam would have done it," said Dick Perreault, chief of planning with the Maricopa County Flood Control District. "The big problem is the potential for flooding from watersheds that feed the Salt and Verde rivers and that's what we're seeing in the last couple of days."

Scott Harrelson, a spokesman for SRP, said early releases of water to make way for incoming runoff was not as easy as people think. He explained that although forecasters predicted rain for the Valley last week, SRP officials' hands were tied to release water in anticipation of the coming rains.

"You go by the weather forecast to determine how much you release," said Harrelson. "But you cannot release half of the storage system because this is a water delivery company. You have to have water in the system.

"Had the weather forecaster been wrong, and we released all the water and then don't get enough to fill it up, we cannot deliver the water the Valley needs," he said.

Flooding last week was not as bad as February 1980 when, after nine consecutive days of rain, the raging Salt closed nearly every river crossing in the Valley. "Things were really a mess," Perreault said.

Despite pressure from state political leaders and preliminary federal legislation to fund engineering and site preparation of Orme, the plan was defeated by strong opposition by environmentalists and the tribe.

Soon after the demise of Orme Dam's plans, Arizona lawmakers and state officials — still recovering from the 1980 flood devastation — looked to alternatives.

One alternative was Plan 6, approved on the federal level in 1984. The plan included raising Roosevelt Dam — now under way — the construction of Cliff Dam on the Verde River, and strengthening the remaining five dams on the Salt and Verde rivers.

Although some remnants of Plan 6 are intact, the Cliff Dam site was shot down by environmentalists.

"It wasn't just the bald eagle that was an issue, but at the time, there was actually a bald eagle nest at the site of the dam," said Herb Fibel, a former president and current member of the Maricopa County Audubon Society. "Ninety percent of Arizona's animal habitat lives along riparian areas. Cliff Dam would have cut out a lot of stream site habitats."

Riparian is a natural habitat found along or near a river.

The benefits of development vs. environmental preservation is the crux of arguments between flood control dam proponents and opponents.

"The environmental groups have a very valid concern for what could have happened at the Cliff Dam site," Fibel said. "What does society want to waive? It's the difference between development and the damage to environment."

Although environmentalists and flood control district officials disagree over the impact the Orme and Cliff dams would have had on the Valley, both sides agree that alternative structures, river channeling and bridges, built since 1980 have lessened the effects of last week's flooding.

River crossings such as Gilbert Road, Alma School Road and McClintock Drive were designed and built to withstand more than 150,000 cubic feet of water per second.

The channeling of the river bed from Mill Avenue in Tempe to Phoenix Sky Harbor International Airport was constructed to avoid a repeat performance of past floods.

Paul Cherrington, manager of water engineering and transmission for SRP, said a flood control dam would solve the Valley's flooding problems. He explained the Orme Dam was envisioned to catch the flood flows of the Salt and Verde rivers. Even the alternative, Plan 6, would have captured all that water. "We would have been bleeding that space out (of Cliff Dam) at 25,000 cfs rather than the 110 cfs you saw (Friday)," he said.

ARIZONA REPUBLIC JAN. 24, 1993

# Rains, floods a mess for recreation industry

## Events canceled, revenues cut by poor weather

By Mark Armijo
The Arizona Republic

After the financial bath he took, Phoenix International Raceway owner Buddy Jobe could use some of that federal disaster money that's flowing to Arizona.

So could many of the Valley's golf-course proprietors.

They, like others in sports-related businesses, were heavily affected by recent rains and flooding that swept through the state.

Jobe may have been hurt most.

The raceway had to postpone the Copper World Classic auto race that had been scheduled for this weekend when a swollen Gila River threatened to shut down the last remaining access road to the track.

The race has been pushed back to Feb. 22-24. The cost of re-advertising the race, along with damage to the racetrack facility, may cost Jobe nearly $500,000, he said.

"The rain and flooding really did a number on us," said Jobe, whose raceway is at 115th Avenue and Baseline Road.

"It's crazy to live in the Valley this many years and still have water releases rule our lives."

Pat Patterson, a Charlotte, N.C.-based racing promoter, knows how Jobe feels. Patterson is promoting a 10-race series for sprint cars and midget racers at Manzanita Speedway in the west Valley, but rain forced consecutive postponements the past two weekends.

"The parking lot was flooded, the racetrack was flooded, and the dirt road that is used to bring in the race cars to the track was unpassable," Patterson said.

"We're making up one of the rain-outs, but I'm guessing we're still going to be out between $30,000 and $40,000."

Other sports, such as golf, skiing, horse and dog racing, and outdoor recreational activities also have been affected.

Some positively. Some negatively.

### Golf

Gary Witzel, an assistant pro at Encanto Golf Course in Phoenix, said rain prevented the use of golf cars for 15 days. Encanto is a municipal course.

"The course was too wet and sloppy to let the carts out," Witzel said.

"People don't want to play when it's like that, so, yes, business has been down. It's hurt us bad. This is normally our busiest time of the year. The city probably lost $20,000 in (revenue) in two weeks."

At Papago Golf Course, another municipal facility in Phoenix, an employee said business was off 50 percent during the recent inclement weather.

"It's destroyed the amount of play we usually get," said the employee, who didn't want to be identified.

At the Tournament Players Club of Scottsdale, which is the site of next weekend's Phoenix Open, head pro Rick Renick said the desert and stadium courses were closed at intermittent times.

"We normally get 160 golfers a day, but because of the open, we limit it to 90 players beginning January 4," Renick said.

"But we've only gotten about 50 players a day because of the rain. We got 7¾ inches of rain out here.

"The silver lining in all this is the greens are magnificent."

### Skiing

For the most part, ski resorts have benefited from the cold and rainy weather. At Sunrise Park Resort in the White Mountains of eastern Arizona, what once was a 40-inch base at the end of December has swelled to 110 inches.

"We had to shut one day because we lost our power, but other than that, it's been great," said Tom Marsing, operations manager.

"Most of our business (90 to 95 percent) comes from Phoenix and Tucson, and they've still been coming up here. We did 9,000 skiers (Jan. 16), which was our busiest day of the year."

The base at Flagstaff's Arizona Snowbowl has grown to 146 inches from 62 inches, and General Manager J.R. Murray couldn't be happier.

"Last year, we had our best year in 54 years, and we didn't attain 100 inches until March 25," Murray said.

"This year, we attained it on January 12. We've had a couple of bad days, but overall, we're not down (in skiers) at all. Now, we won't have to depend on any more snowfall to guarantee good skiing conditions."

At Mount Lemmon Ski Valley near Tucson, it's a different story. Because rain washed away part of the main entrance and because the only other access road was closed by heavy snowfall, there hasn't been any skiing since the end of the year.

Kelly Oby, who manages the Mount Lemmon ski area, said the main road probably will remain closed for another week or two. The other entrance, however, has been cleared of snow and the facility has been opened.

### Horse racing

Turf Paradise President Bob Walker reported no race cancellations because of the weather. But there has been a slight dropoff at the betting windows.

For the season, the Phoenix racetrack is averaging $496,443 a day in in-state wagering. From Dec. 28 through Jan. 18, the average was $480,434.

"Up until two weeks ago, we were only off less than 1 percent in our total handle," Walker said.

"Off-track betting has helped us a lot. But we were down 17 percent last week from what we thought we'd be. We figure between us and the horsemen, we lost $114,000."

### Dog racing

Through the first 10 days of January, Phoenix Greyhound Park actually showed a $5,000-a-night increase in the handle, the total amount of money bet.

"We've held our own," General Manager Dan Luciano said.

### Fishing

Fishermen have been staying home.

"Rain and floods definitely hurt fishing," said Bill Silvey, a fisheries management supervisor for the Arizona Game and Fish Department. "The waters turn turbid and cold, and that turns (fish) off from foraging.

"The bonus in all this is, it's going to create a great reproductive year. We suffer now, but in two, three or four years, we'll see an abundance of fish."

### Hiking trails

There are about 59 miles of hiking trails at the Phoenix Mountain Preserve, but none closed during the rains and floods.

Randy Singh, a manager for Phoenix's parks department, said there were some erosion problems on the Echo Canyon Trail on Camelback Mountain but no closures.

Rain, however, did reduce the hiking on Papago Park tails, Singh said.

Darion Gilbert, a manager at South Mountain Park, also reported fewer hikers.

"We didn't get heavy rain, just constant rain," Gilbert said. "But when it's wet, people don't hike."

ARIZONA REPUBLIC JAN. 10, 1993



# Winslow, Navajo areas flooded — 400 evacuated

## Little Colorado breaches dike around city

**By Mark Shaffer**
The Arizona Republic

Heavy flooding along the Little Colorado River in northeastern Arizona has forced the evacuation of about 400 people from the Winslow area and the Navajo Indian Reservation's southwestern corner.

"They've had whole trees and dead cows coming down Clear Creek, all coming down from the watershed," Winslow police Lt. Wayne Wagner said of floodwaters swelling major tributaries of the Little Colorado just outside Winslow.

Nearly 300 people in a farming area north of Winslow had to leave overnight Friday or early Saturday after rushing waters broke through a 150-foot section of dike, he said.

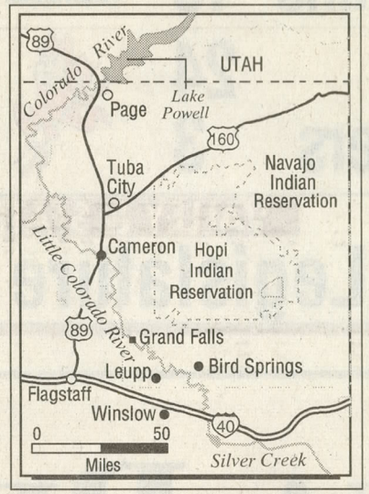
Meanwhile, 18 families were evacuated Friday and Saturday along the swollen river in the reservation community of Bird Springs. Navajo Nation President Peterson Zah toured the area by helicopter Saturday after declaring a state of emergency the day before.

By the time the dike was breached about 9:45 p.m. Friday, emergency crews had gone door to door and had called out on portable public-address systems to alert residents of the rural Ames Acres community, Wagner said.

Evacuees were sent to four local churches serving as shelters.

"The Little Colorado River came up over the dike," Wagner said. "It cut about a 150-foot hole in the dike," which runs for about eight miles around Winslow.

Parts of the city are in low-lying areas, Wagner said, and damage was estimated at nearly $1 million, not including any possible livestock lost. Residents were expected to return to their homes late Saturday, at least briefly, to salvage belongings.



The Arizona Republic

Emergency crews worked around the clock to repair damage to the dike in anticipation of a new round of storms today.

"We're expecting another flood," said Wagner, noting that the National Weather Service had issued a flash-flood warning for northeastern Arizona's plateau region, which includes areas north of the Mogollon Rim, about 3:45 p.m. Saturday.

A spillway at the Blue Ridge Reservoir, which traps forest-area runoff along Clear Creek, was partially blocked by large logs late Friday. Emergency workers freed those logs by early Saturday, Wagner said.

On the Navajo Reservation near Bird Springs, 15 widely scattered families were evacuated late Friday by an Arizona Army National Guard helicopter and four-wheel-drive vehicles. Three others were taken out by four-wheel-drive vehicles Saturday.

The families were staying with relatives or at a Bureau of Indian Affairs boarding school in the nearby community of Leupp.

Sgt. Merv Yoyetewa of the Navajo Division of Public Safety said officers have advised the evacuees to not return to their homes, "but I know of at least one woman who rode back in on horseback."

The flood also closed Arizona 99 between Leupp and Winslow in the Canyon Diablo area. About a quarter-mile of the highway was under as much as 2 feet of water Saturday afternoon.

Navajo police Lt. Ronni Wauneka said, "It's mellowing out now, but we're expecting that the water level will rise again when the storms come in."

The water level of the Little Colorado River had dropped 3 feet by Saturday afternoon from its high point Friday night, Wauneka said.

The tribe, aided by county governments and companies such as Peabody Coal Co., has been transporting everything from food and coal to livestock feed and wood into the area the past three days for those who were going to stay in their homes.

Phoebe Watchman, spokeswoman for the tribe's emergency-management department, said the tribe had asked for state assistance in evacuating six Navajo families from the Indian Wells area, also because of flooding caused by the Little Colorado.

Watchman said her office has been trying to get community-chapter officials to report conditions to the tribe, but so far has only received a few phone calls.

"We think that many of the managers may be stuck at home and not able to get to their offices to call us," Watchman said.

Several other communities in Arizona, such as Inscription House, have called the tribe to report that secondary roads are impassable because of mud, and Watchman said the tribe has begun an assessment to determine the seriousness of the problems.

Contributing to this article were Steve Yozwiak, Jerry Kammer and Bill Donovan of *The Arizona Republic.*

# Water rips scaffolding from bridge

By Karina Bland
THE PHOENIX GAZETTE

TEMPE — The surging Salt River ripped the scaffolding from a half-completed Mill Avenue bridge on Friday, swallowing up pieces of wood and steel as it roared down the usually dry riverbed.

On the riverbank, city officials and contractors simply watched in quiet dismay.

"It's what we anticipated would happen," city spokeswoman Nachie Marquez said. "We just hope it doesn't get worse."

## Inside


■ A portion of a landfill may slide into the Salt River. A7

■ About 1 inch of rain is expected tonight. A10

■ Awesome power at Stewart Mountain Dam. B1

■ Storm a boon for roofing company. B4


Scaffolding that protected the unfinished half of the bridge — which spans the river just east of the original — started collapsing at 12:30 p.m. The completed half of the bridge remained intact early today as officials at the Salt River Project continued releasing water in the wake of heavy rains.

About half of the temporary scaffolding had fallen by 4 p.m. Friday, but the concrete footings of the unfinished part of the bridge were expected to survive, Marquez said.

When finished, the bridge is designed to withstand 250,000 cubic feet of water per second. The temporary structures can withstand only 33,000 cfs.

The flow peaked at 124,000 cfs at 10:15 p.m., SRP spokeswoman Teri Morri said. The heavy flows have forced city engineers to keep watch over the old bridge as well, but it shows no signs of damage, they said.

With the riverbed probably at its best-groomed in decades because of preparation for the Rio Salado Project, Mayor Harry Mitchell doesn't fear damage.

"Things are OK, I think," he said. "We can see what the Rio Salado might look like if it was completed."

See ■ BRIDGE, Page A10

PHOENIX GAZETTE
JAN. 9, 1993

Dana Leonard / THE PHOENIX GAZETTE
**Spectators gather along the Salt River bank on Friday to watch surging waters batter the new Mill Avenue bridge.**

# ■ BRIDGE

From A1

The new bridge is being built to relieve traffic congestion and make way for the Rio Salado Project, which will turn the bare bed into a riverside community of parks, restaurants and nightclubs.

Once there is water in the river full-time, motorists won't be able to cross on the Rio Salado Parkway, which normally handles northbound traffic.

The new bridge will carry two lanes of northbound traffic and a bicycle lane. The old bridge will handle southbound traffic.

City engineers and bridge contractors were concerned that wood, steel and other material falling from the new bridge would pile up against and damage the existing bridge, but that did not happen.

"It all just floated downstream," Mitchell said. "However, that could cause some problems farther down the river if that debris gets hung up."

Because the city has not taken ownership of the bridge, the contractor, Edward Kraemer & Sons of Phoenix, will take the financial hit.

The bridge was to cost $8 million, with half being paid by the Arizona Department of Transportation and half by the city. Completion was scheduled in August.

While spectators lined the original Mill Avenue Bridge and the riverbanks on Friday, officials watched the water for the adventurous. They have seen people on inner tubes and in canoes.

# Federal flood aid sought by governor

## Damage at $25 million, more rain is forecast

Saturday, January 16, 1993 The Arizona Republic

**By Eric Miller**
The Arizona Republic

With preliminary estimates placing statewide flood damage at more than $25 million, Gov. Fife Symington on Friday formally requested that President Bush declare Arizona a flood-disaster area, which would make it eligible for federal relief funds.

"After visiting many of the flooded communities across our state, I am convinced we need federal help to repair the damages to our homes and businesses as soon as possible," Symington said.

Also Friday, Symington authorized the release of an additional $1 million in state funds to assist statewide relief efforts, and state officials began bracing for a rainy weekend and another possible round of flooding.

The National Weather Service predicted rain for most of the state today, with possible periods of heavy rain Sunday and Monday.

In another flood-related development, Scottsdale City Manager Dick Bowers on Friday reversed an earlier decision and announced that, effective immediately, the city temporarily would discontinue use of the Tri-City Landfill, north of Mesa.

On Jan. 8, Symington declared a state emergency and authorized $100,000 in state funds for flood relief.

"It appears from the initial assessments that the damage is going to exceed $25 million," said Dan Roe, a state emergency-services-program coordinator.

Officials with state and local emergency services and the Red Cross will continue assisting flood victims from about 6 a.m. to 8 p.m. this weekend, Roe said.

A flood warning remained in effect Friday for Winkelman, Hayden, Kearny, Kelvin and Florence, along the Gila River southeast of Phoenix, despite slightly lower water flows from Coolidge Dam.

John Egan, spokesman for the Salt River Project, said releases from Granite Reef Diversion Dam north of Mesa continued to be about 30,000 cubic feet per second Friday.

"As for the weekend, we're in a position that anything that comes in has to go out pretty quickly," Egan said.

Roe said 10 preliminary-damage-assessment teams left Phoenix on Friday afternoon, fanning out across the state to begin putting a pencil to damage in the 10 Arizona counties that have requested emergency-relief funds.

The teams will go out again Sunday to areas that were difficult to reach Friday.

The financial-damage assessments will be used to assist Symington in efforts to obtain federal relief funds.

The counties that have requested flood relief are Maricopa, Pima, Gila, Yavapai, Navajo, Graham, Coconino, Apache, Greenlee and Pinal.

Damage estimates already have been made in Maricopa, Pima, Navajo and Gila counties, but the figures have not yet been released.

Scottsdale's announcement on halting its use of the Tri-City Landfill came on the heels of heavy water releases during the past week that have washed enough garbage from the landfill downstream through Phoenix to fill more than 3,500 garbage trucks, officials said.

— See **FEDERAL**, *page B3*

— **FEDERAL**, *from page B1*

Bowers, the city manager, said Scottsdale will cooperate in a Valley-wide cleanup of the debris after the waters recede.

"While our use of the landfill is a significant distance from the river's banks and is not contributing to the erosion, our decision to temporarily cease hauling will help all parties involved to focus on cleanup activities and permanent solutions to the problem," Bowers said.

Scottsdale will haul its waste to Maricopa County's Cave Creek Landfill.

Also Friday, Arizona Public Service Co. and KTVK-TV (Channel 3) announced a joint flood-relief effort to help victims in the hard-hit Winkelman area.

The public can drop off donated items at any of the 45 APS offices statewide for the remainder of the month.

Items most needed by residents in the flood-torn area include toiletries, personal-care items, board and card games for all ages, and new or like-new clothing and blankets.

Officials with Blue Cross and Blue Shield of Arizona announced Friday that they will extend by 30 days a grace period for payment of health premiums for flood victims.

Places affected by the payment extension include Winslow, the Oak Creek area, Cave Creek, New River, Wickenburg, Holly Acres, The Flats in Winkelman, the Tanque Verde area of Tucson, Marana, Duncan, Punkin Center, Gisela, Kearny, Mammoth, Douglas and Clifton.

Monday, January 11, 1993 The Arizona Republic

Victoria Buckner/The Arizona Republic

Floods wreaked havoc throughout Arizona last week. Common insurance policies offer "all-risk" protection, which means everything is covered except menaces that are specifically excluded, such as earthquakes, termites, landslides, wars — and floods.

# Homeowners' policies offer varied protection

**By Chet Currier**
The Associated Press

Arizona residents whose property was damaged by floods last week may have wished they had reviewed their insurance policies before disaster struck.

*Money Matters,* a financial planning guide from IDS Financial Services, states, "Homeowners' policies come with varying degrees of protection. It's up to you to know what you're covered for and whether that coverage is adequate."

Under a system widely used by insurance companies, homeowners' policies are available in six classes, numbered HO-1 through HO-6 — one of which actually applies to renters and another of which is aimed at owners of condominiums and cooperative apartments.

For most people, the process of a periodic insurance review starts with simply digging out your policy and reading it.

"Your policy will explicitly describe the type of coverage that you have and, perhaps more importantly, it will list the perils that are excluded from coverage," said William Brennan, editor of the *Financial Planning Reporter,* a newsletter published by the accounting firm of Ernst & Young.

In one of the most common formats, HO-3, a house gets "all-risk" protection, which means everything is covered except menaces that are specifically excluded.

"These exclusions usually include earthquakes, floods, termites, landslides, wars, tidal waves and nuclear accidents," according to IDS.

Such perils are kept out of the policy because they carry with them the potential for claims so widespread or costly that they would make the price of insurance prohibitively high, Brennan points out.

"Your policy may list other exclusions, especially if you live in an area that has been repeatedly battered by a particular type of natural disaster or calamity," he said.

Coverage for these items must be shopped for and bought separately. Flood insurance, for example, is provided through a government program offered in participating communities.

Aside from checking what is covered and what isn't, advisers urge attention to several dollars-and-cents questions.

"To receive a 100 percent reimbursement on a claim (less your deductible), you must insure your home for at least 80 percent of its replacement cost," Brennan said.

"To prevent increasing costs from exceeding your coverage, policies often have automatic inflation adjustments built into them. Or you can usually add inflation protection for a nominal amount.

"Are contents adequately insured?" Brennan asked. "Check for special limits on items such as silverware, jewelry and furs.

"Be aware that homeowners' insurance typically covers the cash value of contents. You can add a rider to ensure your home's contents for their replacement cost."

By the time you assemble all the coverage you want, the cost of the premium can look pretty steep. To reduce it, consider increasing your deductible.

With a bigger deductible, you will have to pay more out of your own pocket when big calamities hit, and to shoulder all or most of the cost in smaller misfortunes. But the premium savings can be substantial, maybe even covering the cost of the deductible in as little as two or three years.

Shirley Murdock tapes a box of picture albums as she packs a household's worth of belongings and puts them into a rented 45-foot truck. "We've got a friend on a mesa top north of the river who has an equipment shed," she said. "We'll take it up there until the water goes down."

Michael Ging/The Arizona Republic

# Farmers rush to avoid Gila's wrath

## Woman's family prepares for flood 66 years after descendants did

**By Mark Shaffer**
The Arizona Republic

ROLL — Shirley Murdock always has a reminder of how wet life can be in the Gila River Valley.

On the mantle of her living-room wall, just beneath a big, stuffed elk head, is a picture of her grandfather, Ed Linden.

He's standing in front of the one-room Roll post office in 1927, the year water roared down the river at a rate of 61,000 cubic feet per second.

Ol' Ed is standing in water up to his knees in that weathered photo. And that was 2 miles from the river.

Now, 66 years later, Murdock finds herself in the same boat.

Her home is only a half-mile away, and most importantly, at the same elevation as the old post office.

Murdock said her family has 1,200 acres of prime farmland stretching to the river and fronting it for one-half mile, behind a large dike.

Even at a flow of 12,000 cfs, a gaping hole was almost cut in the dike in late January before 100 truckloads of rock were hauled in to shore it up.

Murdock has no illusions about what's in store for her land during the next few days, when almost four times that much water is expected to pour down the Gila.

"I just hope we have an irrigation system left," Murdock said. "A foot of water in the house we can deal with. But losing all our crops and all the irrigation equipment, we can't deal with that."

On Tuesday, she was trying to beat the clock to save her lettuce crop. A machine had just arrived during the morning to begin harvesting her plentiful, newly matured iceberg crop.

On a two-way radio, the voice of Murdock's son was filled with anxiety as he talked about what to do if the nearby Avenue 38E bridge was closed before the harvest was completed. The only route left would be a long, circuitous route on dirt roads north of the river toward Yuma.

Murdock has other problems, too. She has to pack a household's worth of furniture and belongings and put them into a rented 45-foot truck.

"We've got a friend on a mesa top north of the river who has an equipment shed," she said. "We'll take it up there until the water goes down."

John Klingenberg has a bigger problem. Klingenberg, whose home is a quarter-mile from the surging water, pointed in the distance to his lower-40 acres. What once had been a thick stand of the bermuda grass that he raises for seed was now submerged in water from a broken dike.

"This whole place is going to be a swimming pool in a few days," Klingenberg said as friends and family loaded his farm records into a truck.

Klingenberg said he will leave behind only a china cabinet, which he feels is too heavy to move. He said he figures he will lose his entire gross sales of $350,000 for the year.

He estimates he also will have to spend $1,000 an acre to rehabilitate and level the soil before planting.

"You know, I was looking at a topo (topographical) map the other day, and this house sits on a little bitty knoll a couple feet or so above the rest of the land," he said. "I hope that means something in the coming days."

# Rampaging river forces shutdown of pumping plant

## Water to unaffected fields, homes cut off

By Arthur H. Rotstein
The Associated Press

WELLTON — Flooding forced a farm district to shut its main pumping plant Wednesday, cutting off irrigation and household water supplies to hundreds of people along the Gila River, officials said.

The plant, which helps bring water from the Colorado River to the Wellton-Mohawk Irrigation and Drainage District, was shut down to relieve flooding pressure threatening its main pumping plant 17 miles east of Yuma, manager C.L. Gould said.

He said options included building a dam about 1,000 feet north of the plant's intake bay to keep out water that threatened an 8,500-foot dike between the plant and the normally dry river.

"If the water surface goes down 6 inches or so, I'd feel a lot better," he said.

The plant is the first in a chain of three that fills the district's 50-mile delivery system. The other two plants can't function unless water is fed from No. 1.

Gould said a high river water surface close to a canal three or four miles west of the pumping plant posed a more immediate danger than the dike problem.

"If it breaks into the canal system ... we've got the river in the canal," he said. It also would sever an access road to ongoing levee work farther west, he added.

"You want to know how this flood is affecting us?" farmer David Sharp of Roll asked. "The whole district is shut down ... domestic water, municipal water, everything."

District farmers drink bottled water, but use irrigation water in their home plumbing for washing and bathing.

Also Wednesday, muddy brown water continued to creep across fields that line much of the Gila's out-of-control 90-mile run from the Painted Rock Dam to the Colorado River above Yuma.

The city isn't threatened, but about 4,200 people along the Gila and trailer parks near the Colorado's riverbank have been urged to leave their homes.

Most Gila residents have heeded that advice, and many hauled their mobile homes with them, Yuma County sheriff's Lt. Lewis Wilbur said.

Farmers in the irrigation district supply 75 percent of the nation's winter iceberg lettuce and are rushing to save as much as possible. Herb Guenther, district assistant manager, estimated Tuesday that 15,000 to 18,000 of the district's 65,000 acres of fields were underwater.

County officials have been unable to compile damage tallies, but a flight along the river Wednesday revealed dozens of homes and other structures partly submerged.

The river churns within its banks in some stretches, then spills through ruined dikes across mile-wide stretches of fields. Isolated farmhouses and huge farm machines sit abandoned in several feet of water near fields where crews try to save the lettuce crop.

Though flows from the storm-fed reservoir behind the dam peaked over the weekend, the river continued to spread destruction as the peak worked its way downstream, Wilbur said.

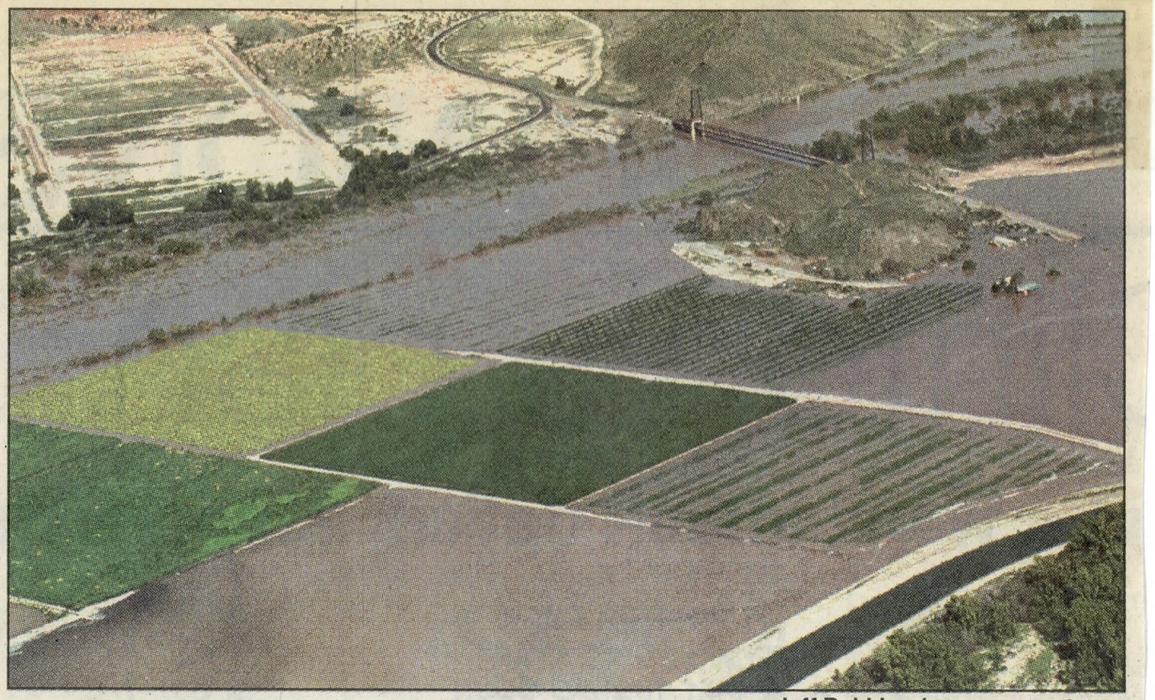
"There's a restaurant that I used to go to, the Miner's Camp," Wilbur said. "I checked that place last night and it was high and dry. Now it has a couple feet of water."

Meanwhile, in Mexicali, Baja California Norte, about 6,000 people may have to evacuate their homes this week in the southern part of the Mexicali Valley if the Colorado continues rising, authorities said Wednesday.

Though it may seem more water is the last thing farmers need, loss of irrigation water hurts those planning to plant cotton on fields spared by the flood.

Sharp continued preparing his fields for cotton Wednesday despite the dim prospects.

"We can't quit farming just because there's water threatening," he said.



Jeff Robbins / The Associated Press

**Floodwaters from the Gila River began inundating lettuce fields east of Yuma on Wednesday. The fertile region along the normally dry river produces most of the nation's winter lettuce. With irrigation pumps now shut off, unflooded fields can't get water, hurting cotton farmers.**

PHOENIX GAZETTE JAN. 14, 1993

# DPS sinks tanks headed for bridge

## I-10 traffic at Gila River crossing backs up 3 miles during wait

By Glen Creno
THE PHOENIX GAZETTE

The fight against flooding in Arizona became a brief shooting war Wednesday when state police officers blew up two huge tanks floating toward a bridge on the Gila River.

Sgt. Rick Knight, a Department of Public Safety spokesman, said officials don't know where the tanks came from. But they became a focus of a major multiagency operation when they threatened the Interstate 10 bridge that crosses the river near Bapchule.

Two state Department of Public Safety explosive experts jumped from an Army National Guard helicopter into the shallow water near the tank closest to the bridge at about noon. A DPS helicopter hovered between them and the bridge to rescue them if they were seized by the swift current.

The officers attached an explosive charge to the tank, lit the 10-minute fuse and hopped back in the copter. The blast blew a 3-foot hole in the tank at 12:20 p.m., and it sank onto a sand bar, Knight said.

They repeated the procedure with the second tank, getting into the water at about 1 p.m. They used two charges and got the same result. Officials believe the tanks will stay put and no longer threaten the bridge.

Both tanks were empty. One apparently held water, and the other was an oil container of some sort, Knight said.

"They just came floating down the river, the Gila River, with all the debris that's been coming along," he said.

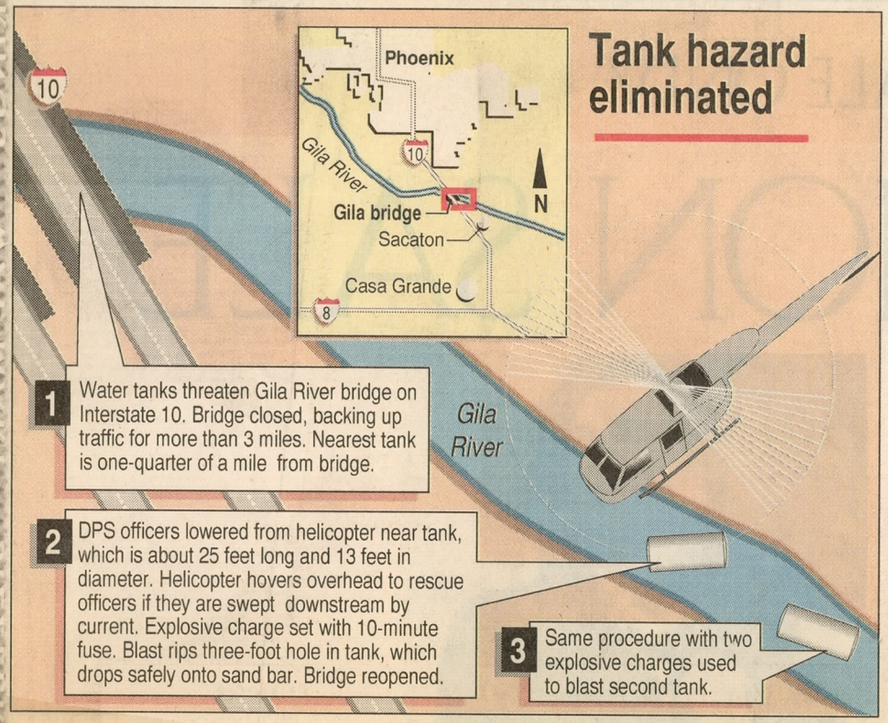
Officials said traffic backed up for more than three miles as both sides of the double span were closed while the first tank was sunk. It was only a quarter-mile from the bridge, and there were worries that debris might land on traffic.

The bridge remained open while the second tank, about one-third of a mile from the bridge, was taken care of. Knight said authorities figured the second tank was far enough away and not a threat to spray traffic with chunks of metal.

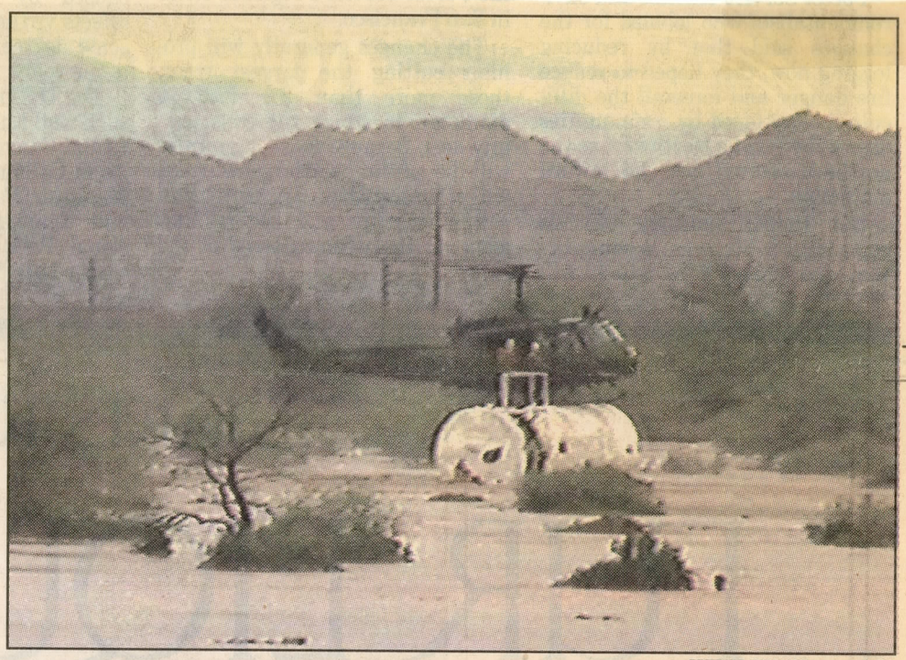
Personnel from the DPS, the state departments of Transportation and Environmental Quality, the National Guard and the Phoenix Fire Department were at the scene. Knight estimated the tanks were about 13 feet in diameter and 25 feet long.

He said there were three concerns: The barrels would hit the bridge, wedge under it and smash it from below when the water rose, or stop against the bridge and collect a mass of debris in a damming effect.

Dan Powell, an ADOT district engineer, said water flows in the Gila aren't a threat to the bridge. A flood in 1983 washed out the approaches to the westbound side, but Powell said the bridge has been reinforced and there is little chance it will wash away.




THE PHOENIX GAZETTE



KTVK-TV (Channel 3)

**DPS demolition experts are lowered Wednesday into the flood-swollen Gila River. They used explosives to blow holes in two tanks floating toward the Interstate 10 bridge, scuttling them. Photo was taken from TV video.**

Phoenix, Arizona

ARIZONA REPUBLIC FEB. 22, 1993

# Bracing for more floods

Photos by David E. Nelson/Special for The Arizona Republic

Flagstaff police Officer Frank Higgins (above) carries a teen-ager from frigid floodwaters. Bystander Dayna Nelson (above, left) helped with the rescue Sunday when a canoe carrying two teens collapsed. After the rescue, firefighters (below) treat a victim.

## Earthen dam in Canyon gives way

**By Gail Tabor**
The Arizona Republic

Floodwaters receded in northern Arizona on Sunday, but an earthen dam in the Grand Canyon eroded, sending water cascading through an isolated Indian village.

Meanwhile, residents along the lower Gila River near Yuma were warned to prepare for evacuation this week.

Sixty-three people were evacuated from the canyon's Supai Village on Sunday, including about eight tourists, said Bob McNichols, natural-resources officer for the Truxton Canyon Agency of the Bureau of Indian Affairs.

"Some of them were elderly, some were infants, including one about a month old, and others who just felt they needed to leave," he said, adding that the evacuees included five dialysis patients.

"It's the worst I've seen in my 12 years at the agency."

To the south, water began flowing

— *See* **MORE FLOODING,** *page A12*

– OVER

# More flooding imperils folks along Gila River

— **MORE FLOODING,** *from page A1*

Sunday morning over the spillway of Painted Rock Dam and will build up over the next few days, said Col. Robert VanAntwerp, district engineer in the Los Angeles office of the Army Corps of Engineers.

He added that the dam's outlet gates will be regulated to maintain a flow of 12,500 cubic feet per second as long as possible to allow people downstream some time to prepare for inundation and evacuation of homes and businesses in the flood plain from the dam to the Colorado River.

"It's going to be horrible," said Jim Myrtetus, public-affairs officer for the Corps of Engineers.

VanAntwerp said a combination of recent storms and a forecast of upcoming rain probably will raise the dam's outflow to levels of 30,000 cfs to 50,000 cfs during the week.

On Saturday night, the corps awarded an emergency contract to beef up levee protection of the Avenue 38E Bridge, which links Ross and Tacna in Yuma County. The work should be done in three or four days.

A storm Friday evening in the Mogollon Rim area dumped 4 inches of rain on Flagstaff, triggering floodwaters that forced the evacuation Saturday of 170 people in Sedona and 270 families in Camp Verde, Cottonwood, Clarkdale, Page Springs and Cornville.

By Sunday, floodwaters had receded in Camp Verde and other communities along the Verde River.

"Water is down significantly, at least 10 feet lower than its Friday-night peak," Sedona Police Chief Bob Irish said.

"People who have lived here a long time say they've never seen that much water. It was a flash flood — it came very fast and then receded at rapid rates."

The American Red Cross is helping people forced from their homes.

"We have opened a shelter at the old Camp Verde High School," said Mary Ulch of the Red Cross office in Camp Verde.

"People can stay overnight there and get three meals a day. We also have opened a service center at the Verde Rural Fire Department to receive emergency assistance."

Irish said Arizona 89A, linking Sedona and Flagstaff, will be closed for up to five days. Rainwater roaring down Oak Creek Canyon caused rock slides and mudslides.

The rampaging waters inundated Sycamore Cove, an Oak Creek island community of about 30 mobile homes. High water sent residents scurrying to the roofs of their mobile homes, where they waited for help.

"The water was running so fast, we couldn't get them out until about 6:30 Sunday morning," Irish said.

"Some people spent four to six hours on top of their roofs, wrapped in blankets."

In Flagstaff, a broken water main to the Fairfield Continental subdivision southeast of the city still was plaguing municipal workers, said police Sgt. Dennis Connell, public-information officer. Connell said he didn't know when the water main would be repaired, and residents were warned to boil drinking water.

A teen-ager Sunday made a dramatic rescue of two other teen-age boys who decided to take a canoe for a ride around the subdivision but were dunked into the 39-degree water when wind capsized the vessel. Dayna Nelson, a bystander, went into the water with two inner tubes and held the boys steady until Flagstaff firefighters in wet suits arrived.

All three boys suffered from hypothermia and were taken to the emergency room of a Flagstaff hospital, he said.

The main route into the subdivision off Interstate 40, Country Club Road, was under 5 to 7 feet of water Sunday, Connell said.

Residents along the lower Gila River were being told to brace for soggy days ahead.

Salt River Project spokesman Scott Harelson said Sunday that the peak release from Granite Reef Diversion Dam into the Salt River totaled 69,000 cfs about midnight Saturday, decreasing to 35,000 to 38,000 cfs Sunday. It was expected to stay at that level at least through today.

"We would like to release more, but we're trying to work with the Army Corps of Engineers," he said.

"It appears that all this water is headed for Painted Rock Dam, and the reservoir there is full."

Once water is released from Granite Reef Diversion Dam, near the confluence of the Salt and Verde rivers, it takes about three days to make its way south to Painted Rock Dam, five miles west of Gila Bend. By that time, the Salt has merged with the Gila River, and the trip to the Colorado River near Yuma takes four to five days.

The bad news isn't over. Another weak Pacific disturbance is expected to bring partly cloudy skies over the state today, with a small chance of rain and snow in the north.

However, a much stronger and colder Pacific weather disturbance is predicted to bring significant rain and snow to Arizona on Tuesday and Wednesday, said Mike Franjevic, a National Weather Service forecaster.

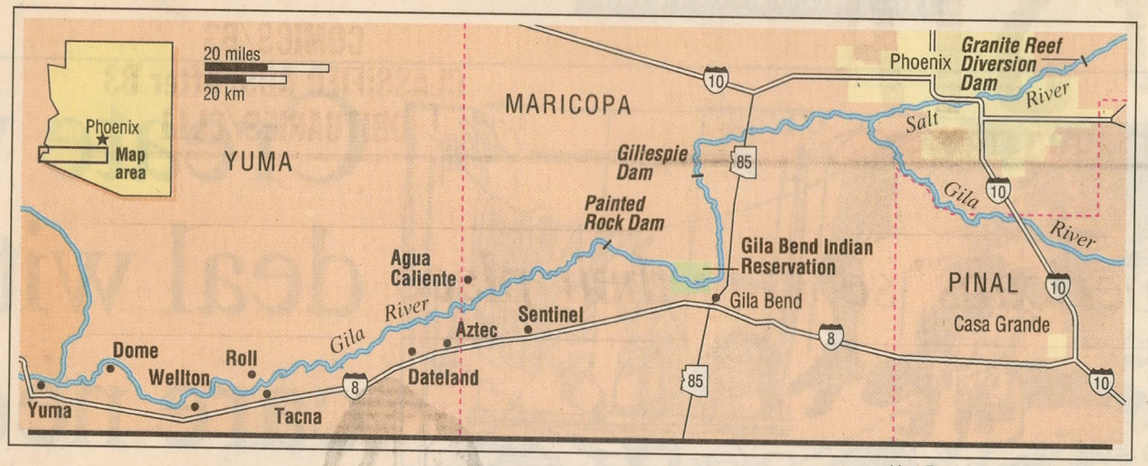
Temperatures are expected to fall, too, with daily highs ranging from the upper 20s in the mountains to the upper 50s in the low desert. It will be breezy Tuesday, Franjevic said, and downright windy Wednesday.

On the heels of that front is another Pacific storm, expected to bring more showers and mountain snow to the state Friday and into the weekend.

Franjevic said it is too early to tell how strong next weekend's storm will be, but "they both look like they could be formidable."

However, he said, if they remain cold storms instead of pumping up some tropical moisture, melting snow would not be added to the rain. That would help residents along the lower Gila River threatened by the runoff.

Anyone who wants to help can make financial contributions to the Red Cross, earmarking the check for a disaster-relief fund. The address is P.O. Box 1837, Cottonwood, AZ 86326. Ulch said clothing and food cannot be accepted.



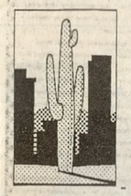

Kee Rash/The Arizona Republic

Contributing to this article was *The Associated Press.*

PHOENIX GAZETTE
JAN. 12, 1993



# Canyon grandeur can't displace sight of sludge in Salt



This column, of course, is about the Grand Canyon. Not about the Salt River.

In other words, it's about the best place in Arizona. Not the worst.

If I felt ornery, I would write about the Salt River. About the garbage. The toxic waste. The 63 landfills buried within its banks. The floods. The spectacular collapse of the new Mill Avenue bridge during a moderate rainstorm last week. But I feel good.

So I wish to portray our state in a positive light.

I want to write about sunsets and sure-footed burros making their way down well-worn paths toward the sound of roaring rapids. Marshmallows roasting in the campfire. Big fat saguaros. Roadrunners. That sort of thing.

Good, old-fashioned, Arizona news.

Positive, healthy social commentary.

**TOM SPRATT**

THE PHOENIX GAZETTE

Not jaded news about the polluted river I cross every morning and evening, day after day, year after year, while trying desperately to think about the Grand Canyon. And while cursing the fact that nobody, after all these years, has done anything to make that sordid eyesore of a watercourse any less of a menace to my good taste.

OK, so I've seen too much of the Salt lately and too little of the Grand Canyon.

I apologize.

That is no excuse to become negative, like so many outsiders who visit the Valley for a few days and rashly conclude that the Salt is the most obnoxious thing they've ever seen.

Those outsiders always plague us with quotes like this:

"Flying over the Valley today, one has to be appalled by the sight of the drained Salt River. It is nothing other than a jagged, ugly, dried-out scar cutting across a beautiful Valley," urbanologist Neil Peirce wrote in 1987, reflecting the viewpoint of snooty liberal eastern intellectuals.

What do *they* know?

An intelligent traveling companion from Nashville offered a more astute observation as our plane approached Sky Harbor International Airport in August.

"You mean that thing down there with the rocks and cement is a river? Are you kidding?" he asked.

"No," I answered, feigning pride.

Nobody would make such remarks about the Grand Canyon, which is why I have decided to make it the topic of today's column. (A column that offers more than its share of good news, I might add.)

So far, not a single bridge over the canyon's mighty Colorado River has collapsed due to Arizona's recent series of rainstorms.

Not even *one* giant chunk of garbage the size of 3,000 truckloads of garbage has become dislodged from a Colorado River landfill, only to go roaring down through the canyon, creating innumerable cesspools.

Nor has the mayor of Phoenix formed a task force to try to figure out how to deal with the pesky river.

Sadly, all of that *did* happen to the Salt, which is why I have decided not to write about it.

The mayor's task force will meet for the first time Thursday. Perhaps the citizens will, at last, find ways to beautify the channel. Perhaps other Valley leaders will — once and for all — find ways to clean up the river and protect it from huge chunks of garbage.

Right now, I have more important things to think about.

Ah, the Grand Canyon in January! Snowflakes falling lightly, covering the cliffs with a veil of white, glistening in the cold morning sun. A bird taking off silently from the branch of an evergreen. A paradise adorned with hues of red, orange and purple.

OK. Now, if I could only figure out how to avoid the trip home over that accursed Salt River.

*Tom Spratt covers urban affairs for* THE PHOENIX GAZETTE. *His column appears each Tuesday.*

ARIZONA REPUBLIC
JAN. 10, 1993

# Sad memory of '83 flood won't wash away

**By Eric Miller**
The Arizona Republic

While most Tucson residents were sitting safe and dry in their homes, Barbara James was donning a raincoat and a stiff upper lip.

She was preparing for a face-to-face chat with the raging river wash that took her son's life 10 years ago.

"When my husband was gone, I put my raincoat on and walked down to the wash, which I can see from my bedroom window," she said Saturday. "It looked like the Colorado River in the Grand Canyon. But I wasn't afraid. I was angry.

"I just looked at it and screamed, 'You bastard! You won't defeat me! I'm Indian and Irish, and you don't hurt one of my kids!'

"I know this all sounds melodramatic, but it's almost a battle of wills. It's not going to break

— *See* **MEMORY,** *page A2*

me."

Friday was tough for James and her husband. When the heavy rains come, the water in Tanque Verde Wash often rises to perilous levels.

And so do the bad memories.

James' son, 26-year-old James Paul Williams, was taking a friend and her daughter to work at Tanque Verde Ranch, a popular guest ranch in Tucson, on a rainy morning in October 1983 when his small pickup truck got stuck in the middle of the fast-moving water.

After seeing that the two women were safely perched in the back of his truck, Williams swam off to get help.

He struggled to the water's edge and became trapped against the bank, clutching a tree.

Two of his co-workers from the ranch rushed over and grabbed him. They battled to keep a grip on him for 45 minutes or more.

But just before a ranch crane could be moved to the wash, a sudden surge of water wrenched Williams from his friends' grasp. Cold and tired, he succumbed to the swirling waters.

The two women were rescued shortly afterward.

"His fiance and he were going to get married and move to Alaska and homestead, because my son was a big outdoors person and nature-lover," James said.

"I was very, very angry at Paul for a long time. I finally realized that I was very angry at him for dying. It's not normal for a child to go before the parent."

Ironically, James and her husband, who lived in the Chicago area at the time of Paul's death, chose a retirement spot in 1989 near the Tanque Verde Wash in northeast Tucson. Their home is only a few miles from the area where Williams drowned.

It was the migraine headaches brought on by her son's death that forced James into a medical retirement from her job as an office manager for an auto dealership.

James said she later heard that her son's ranch friends who clutched him for nearly an hour felt for years that they had let him down.

"But they were risking their lives by just holding onto him," James said. "One of them even fell in, jumped out on an eddy and went right back to holding onto him."

"I tried to get ahold of both of them to tell them, 'Don't feel bad, you did everything you could and more.' "

She never did.

The owners of Tanque Verde Ranch, where Williams was a maintenance worker, donated a burial site at the ranch alongside the graves of their ancestors.

He was laid to rest on the very spot in the graveyard he once showed to his mother as a place where he often came to meditate.

"That's where I buried him," she said. "On that very spot.

"This was the only place I wanted to come, because my son is buried here."

ARIZONA REPUBLIC
JAN. 16, 1993

# When deluge ends, repairs, grieving start

Rivers, of course, are not human. But after you have personally experienced a flooded house, they seem to take on an evil disposition.

The Santa Cruz River, feeling cocky because of a 100-year rainstorm in October 1983, smashed into my parents' house near Rillito, growled around the outside and left mounds of sandy mud and car-size holes in the yard. Then, it busted inside, tasted everything it could reach and roared away.

Was it angry because the house had peacefully sat in a flood plain for 20 years, about 100 yards from the river? Or was it trying to remind us that *people* make a home, not possessions?

No one was hurt. My parents, then in their early 60s, had escaped to a Tucson motel. But their shock was deep. I didn't see them cry, but I sure remember their anger. I remember Mom angrily throwing muddy records, dishes and whatever she felt like into a big hole in the back yard, an instant landfill.

— See **WHEN**, *page E3*

# When deluge stops, repairs and grieving start

— **WHEN**, *from page E1*

Flood victims, we would learn, go through the same grieving stages as widows, widowers, divorcees and other victims of shock. From then until he died four years ago, my dad, a retired Air Force lieutenant colonel who flew almost 50 bombing missions in World War II, kept a light on whenever he went to bed.

My parents had no flood insurance, but they did have enough money saved to pay for rehabilitation. They rented a house in Tucson and weren't able to move back home for eight months.

They hired local people to lay tile and do electrical work, but mostly it was a family project. All six adult children came from Glendale; Flagstaff; Albuquerque; Durango, Colo.; and Kalispell, Mont., to pitch in.

A brother and sister first had to dig through sand to open the door. Then, they pushed out all the mud, playfully splashing some on each other. My husband rented a small tractor and pushed the sand dunes away from the house and leveled the yard. That was an important psychological step because then we could see the house again.

I remember shoveling wheelbarrow loads of sand and later dried vinyl floor tile.

Almost all the furniture had to be discarded. Fortunately, the most valuable item, a solid-wood antique dining room set, looked as good as ever after a new coat of varnish.

Most of the family photographs, which had been stored in dresser drawers, were ruined. The mud just seemed to wash the images away.

A brother who is a carpenter spent almost a month refinishing all the woodwork and building a set of blond kitchen cabinets.

Finally, about a year after the flood, the inside and outside walls were painted, erasing the last of the mud stains.

But not the memories.

TEMPE TRIBUNE JAN. 17, 1993

# Record-breaking rain to douse Valley

**By Paul Coro**
Tribune writer

If the last 12 days of steady wet weather has felt monotonous, the Valley now has a record to verify it.

A record established in the 1920s for most consecutive days with a trace or more of rain was broken Saturday when it rained for the 12th straight day. The old record was 10 days, set in 1921 and tied in 1926.

But Mother Nature apparently is thinking big. The National Weather Service said two more storms, one which arrived Saturday night, will bring heavy rains through Monday. Between 2 and 3 inches of rain are predicted.

"It's going to rain pretty hard and consistently," meteorologist Bob Berkowitz said. "It's going to be a bad storm."

The storm that arrived Saturday has more moisture coming from subtropical jet streams; but the second storm, expected to arrive today, is a strong cold-air system that will drop temperatures and lower the snow level about 2,000 feet.

Lows will remain in the upper 40s or low 50s tonight because of the cloud cover, Berkowitz said, but will move into the low 40s Monday. On Tuesday the colder areas could dip below freezing, while most of the metropolitan area will be in the upper 30s.

However, there is sunlight at the end of the tunnel. With the storms moving out Tuesday, Berkowitz said, the area will see a prolonged drying period.

By the end of the week, the forecast has temperatures possibly reaching the 70s again.

A flash flood watch was in effect for northern, central and western Arizona through noon today, and the flood warning for the Gila River from San Carlos Dam to Painted Rock Dam continued, according to the Weather Service.

People living along mountain streams or canyons in the central basin country should be alert to the danger of flooding, the Weather Service advised, and be ready to move to higher ground if the water rises.

With the soil already saturated, heavy runoffs are expected, officials said.

There was still considerable snow on the ground over parts of northern Arizona, which, with rain, could increase the flood threat, the Weather Service said.

Releases from Roosevelt Dam, 80 miles southeast of Phoenix, were cut back to 14,900 cubic feet per second Saturday from 24,000 cfs Friday, but the 80-year-old dam currently has only one operating spillway. The other spillway has been temporarily blocked to accommodate a construction project that will elevate the dam by 77 feet to improve storage capacity and provide flood control.

Releases from the Granite Reef Diversion Dam down the Salt River through the Phoenix area were at 51,000 cfs Saturday. Last week's peak release of 124,000 cfs caused substantial damage to a bridge under construction in downtown Tempe and washed garbage from the Tri-City Landfill.

The Central Arizona Chapter of the American Red Cross plans to bring in 50 to 60 volunteers from across the nation to staff 12 shelters the agency has in Arizona. State headquarters will be in Globe because the city is halfway between Phoenix and Tucson, said Red Cross spokeswoman Claudia Schnagel.

***The Associated Press contributed to this report.***

# Scottsdale temporarily switches landfills

**By Sonja Lewis**
Tribune writer

Scottsdale will spend an extra $5,000 a week to use Maricopa County's landfill to ease the strain on the Tri-City Landfill, city officials said Saturday.

Scottsdale City Manager Dick Bowers said the move would be temporary but would help shift the focus of the discussion about the landfill, which has been eroding and sending trash down the rushing Salt River. "It's about time we stop talking about which cities are dumping and which aren't and start talking about cleaning up."

Mesa and Tempe have announced no plans to discontinue using the Tri-City Landfill on Salt River Pima-Maricopa Indian Community land.

Mesa Mayor Willie Wong said last week that negative publicity has blown the landfill damage out of proportion. Neither Wong nor Tempe city officials could be reached Saturday for comment.

Scottsdale residents send more than 200,000 tons of refuse a year to the Tri-City Landfill and were paying $20,000 to $30,000 a week, Bowers said.

The additional $5,000 results from costs of hauling garbage to the 19th Avenue landfill, Bowers said.

Meanwhile, Gov. Fife Symington asked the president for federal aid to deal with the landfill problem. Officials from the Salt River Pima-Maricopa Indian Community, the U.S. Army Corps of Engineers, Arizona Emergency Services, Federal Emergency Management Agency and the state Department of Environmental Quality are working on plans to protect the landfill from further erosion both in the short and long term. The landfill is scheduled to close in October.

Four other plans are being discussed, one proposing that Mesa, Tempe and Scottsdale jointly finance a cleanup after the water recedes.

"We won't back away from our commitment to support the tribe in their efforts to close the landfill," Bowers said.

Tribal president Ivan Makil said Friday the cost of securing the landfill against future flooding is about $1 million.

Tempe Tribune JAN. 17, 1993

SPECTATOR

STEPHEN TUTTLE
Special for The Arizona Republic

# Stupidity storm warnings

Sunday, January 17, 1993 The Arizona Republic

Rain is supposed to be a positive agent. It cleans the air; it renews our deserts. Unfortunately, it also brings to our attention the abject stupidity of politicians and regular citizens alike.

This is not run-of-the-mill stupidity we're talking about, not just locking the keys in the car or breaking a campaign promise. No, this is stupidity of Himalayan proportions. This is stupidity of exactly the sort that must have encouraged the Guinness brothers to begin their book of records.

## Function in the rain

This all starts fairly harmlessly with the rain. I have it on good authority that most automobiles, including those produced outside this country with cheap labor, are designed to be functional in the rain. No owner's manual requires people to drive 5 miles an hour on wet streets.

But annoying as they are, slow drivers do not actually qualify for the level of stupidity about which I'm talking. To get to the major leagues of really stupid drivers, we need to talk about the wash crossers. How many warnings must be issued, how many barricades placed, how many death-defying rescues performed before these jerks will understand?

Those same cars that were designed to function perfectly well in the rain were decidedly not designed to cross rivers. When you see a piece of a bridge or a house go floating by, that is a good sign your car is not going to make it across the wash. Sadly, this stupidity results in police officers and fire-fighters risking their lives to save people whose value to society is most certainly marginal. They should be ticketed, have their licenses revoked, be charged the cost of the rescue, or perhaps we should just let them drift on down to Yuma.

The wash crossers are a sorry lot. But their sins pale in comparison to those of the politicians, the absolute champs of rain-related stupidity. Exhibit number one is, of course, the Tri-City landfill, a garbage dump immediately adjacent to a river. This required the collective stupidity of many, many elected and appointed officials. Not surprisingly, none of them are especially anxious to take credit now. They are almost full to the top with feeble excuses — we can't do anything because it's on tribal land, we don't have any place else to take our trash, we dump our trash on the other side of the dump, etc., etc.

The excuses are every bit as nauseating as the stench now wafting over the Salt River. So far, more than 150 tons of this crud has been torn away from the dump to find its way down the river. And even better, it now percolates into a fetid soup which may well eventually find its way into our groundwater.

The decision to put the dump next to the river is so monumentally idiotic it must have been arrived at by committee. The Salt River Pima-Maricopa Indian Community owns and operates the dump. (I'm guessing this is not what is meant by "a reverence for the land.") The cities of Scottsdale and Mesa take their garbage there, and the Arizona Department of Environmental Quality permits them to do so. The Army Corps of Engineers is "studying" the problem. Gov. Symington hasn't said much about it, though he was impressed with the strength of nature when he and Sen. John McCain took their mandatory helicopter rides over the flooding. Sen. Dennis DeConcini didn't say much about it when he took his ride to examine the upstream dams. (It is a well known fact that dams are best inspected from the air.) The rest of the Arizona congressional delegation, who seem only too anxious to stick their noses into tribal business when it is to their advantage, have fallen silent.

## Liquid landfill

Meanwhile, the Salt River has become a liquid landfill, a dangerous and disgusting eyesore for which no one is responsible. Even the early discussions about a clean-up have been comical. Phoenix officials say they will clean up the portion of the mess in Phoenix but "responsible parties" are expected to pay for it. The landfill operators say they will pay if it can be proven the garbage being cleaned up came from their landfill.

Some now say we should stop pointing fingers and assessing blame. Wrong. We should finger every fool who was involved in this fiasco so we can either vote them out of office or fire them out of a job. But before they go, they should strap on some hip waders and get busy cleaning up the mess their stupidity created.

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Stephen Tuttle is a Phoenix writer and political consultant.

The Arizona Republic Monday, January 11, 1993

# Golfers and 'snowbirds' holed up by rain, floods

**By Art Thomason**
The Arizona Republic

Dwaine Hibbs of Boise, Idaho, pulled his rented car into a golf-course parking lot and looked up at dark rain clouds draped menacingly over the Superstition Mountains.

"Disappointed?" Hibbs asked rhetorically. "That's not the word I was going to choose. My thoughts couldn't be printed in the paper. We were planning to play a lot of golf, and we ran into a flood."

Hibbs, like thousands of winter vacationers enticed by tourism promotions advertising the Valley's virtually endless sunshine and bone-dry climate, turned to the drip-free zones of shopping malls, pool halls and libraries.

Vacationers are disillusioned but aware that their plight is insignificant compared to problems caused by flooding, especially in southern Arizona and Mexico.

"There are a lot of card games," said Bob Dallas of Des Moines, who spends most of the winter in Mesa each year with his wife, Maxine. "We had 29 consecutive days without sunshine in Iowa."

Others, such as Bryan and Tanya Berg of St. Paul, Minn., who arrived in the Valley last Monday for two weeks of golf, considered pulling out early.

"If the weather doesn't clear up, my wife and I are going to head back to home," said Bryan Berg, a 31-year-old sales manager for an automobile dealership. "We've played only one round of golf since we've been here, and we expected to play at least a dozen."

The Bergs' one round was more than Jeff Lessig, director of golf at Superstition Springs Golf Course in Mesa, and other golf pros saw since Friday throughout the Valley.

Rain has put a dent in the Valley's multimillion-dollar golf industry. Some courses have been closed for several days because of flooding, and course officials such as Lessig are concerned about the threat of additional rain.

"It hurts very much," he said. "This is when you need to make up for the slow summer time. There's no way we can make up for these lost days."

Charles Krejcsi/The Arizona Republic

Minnesotans Bryan and Tanya Berg, who arrived in the Valley last Monday for two weeks of golf, have played only one round. "If the weather doesn't clear up, my wife and I are going to head . . . home," Bryan Berg said.

The rain washed out golf for Joe Hoffman of Bemidji, a city in north-central Minnesota, he said as he ate breakfast at the Community Restaurant near McKellips and Recker roads in Mesa.

But he wasn't too concerned.

"This is a lot better than snow with a 75-degree-below-zero windchill," he said. "I don't mind this warm rain a bit."

# Heavy rains replenishing water supply

## Recent storms are godsend for Arizona, experts say

By Mike Padgett
THE PHOENIX GAZETTE

Noah would approve.

Although it hasn't rained for 40 days and 40 nights, most of Arizona received abnormally high rain totals in the 40-odd days since Jan. 1.

Officials say the heavy rainfall across Arizona is a godsend, filling reservoirs and recharging the ground-water supplies. They say the predicted flow of some of the state's rivers for the rest of the year are so high, an ark would be helpful.

"Honest to God, that's the truth," said Ron Jones, water-supply specialist at the U.S. Soil Conservation Service's Phoenix office.

And though the heavy rains have taken a breather, Jones and others said the rains are only part of the story.

The rest of the story is runoff from heavy snows, which haven't started melting yet. Hydrologists still are measuring the snows and their water content.

> "This is very unusual that we have this much water behind this (Painted Rock) dam. This is the most we've had since the dam was constructed in 1963."
>
> **Maj. Robert Vanderlik**
> District deputy commander
> U.S. Army Corps of Engineers

Over the weekend, a mild subtropical Pacific system cruised lazily across the Southwest, again saturating many parts of Arizona.

The weather system originated off Baja California and weakened as it hit the West Coast.

On Sunday, downtown Phoenix received 0.37 of an inch of rain and Sky Harbor International Airport received 0.26 of an inch, said meteorologist Hector Vasquez at the National Weather Service. Through Sunday, Phoenix has received 6.35 inches of rain since Jan. 1.

Tucson received 0.36 of an inch and Flagstaff received two inches of snow, or 0.21 of an inch of precipitation.

Although partly cloudy skies are forecast for today and Tuesday, a new cold front is headed for Arizona.

"There's a good chance for rain Thursday and into the weekend, and it could be the start of a new storm system," Vasquez said.

At Salt River Project, spokeswoman Sandy Leander said water was flowing over the Granite Reef Diversion Dam at 19,000 cubic feet per second.

Downstream on the Salt, the water

See ■ WEATHER, Page B3

Randy Reid / THE PHOENIX GAZETTE
**A woman strolls along Arizona State University's Palm Walk Sunday. More showers are possible later this week.**

merges with runoff from the Gila and Agua Fria rivers, and flows to Painted Rock Dam, a flood-control structure completed 30 years ago by the U.S. Army Corps of Engineers.

The dam is about 20 miles west of Gila Bend.

"This is very unusual that we have this much water behind this dam," said Maj. Robert Vanderlik, deputy commander for the U.S. Army Corps of Engineers' Los Angeles district.

"This is the most we've had since the dam was constructed in 1963."

He said workers are releasing water from the reservoir at the rate of 12,500 cfs. If the reservoir continues to fill with the combined runoff from the Salt, Agua Fria and Gila rivers, that rate could be increased to a maximum of 22,500 cfs, Vanderlik said.

The flow of 12,500 cfs is threatening farmland near the communities of Wellton and Tacna, east of Yuma. Residents are working to prevent the water from damaging the crops.

"It's a very difficult situation," Vanderlik said. "We want to release as much as we can in the Gila River but without causing extensive damage downstream. We're working with county officials down there to keep as much (water) coming out without causing substantial damage."

In other parts of Arizona, watersheds that drain into the state's rivers are flowing several times higher than the monthly average. According to the U.S. Soil Conservation Service's January rain and snow reports:

- The Salt River basin received 401 percent of average.
- The Verde River basin received 209 percent of average.
- The San Francisco-Upper Gila River basin received 364 percent of average.

THE PHOENIX GAZETTE

MONDAY, FEBRUARY 15, 1993

ARIZONA REPUBLIC

JAN. 10, 1993

**E. J. MONTINI**
Republic Columnist

# Water shows it's tougher than memory

We forget sometimes that water is tougher than we are. We forget sometimes that there is water, period.

We roll pavement over the paths water has carved out for itself. We build houses and businesses and even garbage dumps on land where water, occasionally, wishes to be. We assume that because water does not cover these places most of the time, it can be kept from them all of the time.

And we're wrong.

We're not the first ones to make this mistake. Generations of others were wrong before us. Generations to come also will be wrong.

Within our lifetimes, we will make the same mistake about water again and again. Water can be managed, we tell ourselves. Which is a true statement as far as it goes. But it doesn't go far enough.

The real truth is: Water can be managed — most of the time.

There are other times when water cannot be managed. When water, instead, manages us. That's what has been happening during the past few days. Water took control.

## A conquering army

On Friday, I drove to the Salt River just to watch the water, as did many others. In places, it pitched and roared and waved at us with the swagger of a conquering army. Which it was.

At the Mill Avenue crossing, I stood near the great old bridge that was completed in 1931. It's made of reinforced concrete and anchored in bedrock. It's our most lasting, most visible admission that water is tougher than we are.

The builders of that bridge understood that sometimes, water is in control. They accepted it and built a bridge that already has outlived some of the foolish generations who've crossed it in bad weather.

People near the riverbank Friday tried to get as close as police would allow them to be for a good view of the new bridge being built just upstream from the old one. Some scaffolding from the new, unfinished structure already had tumbled into the water.

It was a glorious, sunny, windy day. Two young women who'd been jogging together stopped to watch the water rush by, and to look at the bridges. One said, "I can't believe they're letting that much water out of the dams."

The other answered, "They have no choice."

And she was right.

## Water leaves no choice

We've grown accustomed to choices. We expect always to have them. Soup or salad. Coke or Pepsi. Republican or Democrat. Regular or unleaded. Paper or plastic.

The people who operate the Salt River Project had no choice, however. There was too much water to be held back. It came from the Verde River and the Salt. It came from creeks and streams. It slipped into the rivers from saturated land.

The rivers then rushed down toward us in the desert, a place we pretend is not connected in any way to the mountains, where snow falls and rain accumulates and rivers form.

Twelve years ago, a few weeks after I moved to Phoenix, the water flowed with such force that all of the bridges suited for automobiles, except the Mill Avenue Bridge, either collapsed or had to be closed.

At the time, all of the politicians, most of whom foolishly believed that we're tougher than water, said such a thing must not be permitted to happen again. That it *would* not be permitted to happen again. Politicians in charge today will say the same thing. And, for a time after the water recedes, you'll believe them. You may forget that water is tougher than we are.

You may forget that there is water here, period.

I walked across the Mill Avenue Bridge on Friday, with the water beating on the pylons below and rushing wildly through its lovely arches. There were other people on the bridge. Some of us leaned over the railing to get a better look and listen to the sound of the water.

I can't be positive, but I believe I heard three words being repeated over and over again from the torrent beneath me.

Ha.
Ha.
Ha.

THE PHOENIX GAZETTE SATURDAY, JANUARY 16, 1993

# Uneasy clients could doom tribal landfill

## Scottsdale stops hauling; Mesa ponders move

By David Hoye
THE PHOENIX GAZETTE

Public outrage over a Salt River awash in garbage may close the Tri-City Landfill by driving away its biggest customers.

Scottsdale decided Friday to temporarily stop hauling its garbage to the Indian-owned facility, which filled the Salt River with garbage last week after being ripped open by floodwaters.

City Manager Dick Bowers said the decision will allow the public to focus on cleaning up the river instead of debating whether Scottsdale should be dumping at the Salt River Pima-Maricopa Indian Community site.

Council members in Mesa, meanwhile, plan to discuss the landfill Tuesday, and also may decide to stop using the site.

"It could be we leave because of the public perception," Mesa Mayor Willie Wong said Friday.

State officials said the loss of Scottsdale and Mesa, the tribe's largest customers, would effectively close the landfill.

"It'll just cut them off at the knees," said Betsy Westell, manager of solid waste for the state Department of Environmental Quality.

Without the two cities, Westell said the tribe would be unable to earn enough money to keep the landfill open, let alone have money to pay the estimated $40 million it will take to close the site by October.

The federal Environmental Protection Agency has ordered substandard landfills

See ■LANDFILL, Page B2

## ■ LANDFILL

From B1

across the country — including Tri-City Landfill — closed by October because they don't meet revised environmental standards.

"I would say that would be the end of the lifeblood for that operation," Westell said. "I think they would close. And I don't know what happens after that."

Bowers said Scottsdale's decision to start hauling its trash to Maricopa County's Cave Creek Landfill wasn't intended to leave the tribe in financial trouble.

He said the city intends to continue working with the Indians, and may return to the Tri-City Landfill once the cleanup of the river and shoring up of eroded areas is under way.

"We have a commitment to continue to support them on the closure of the landfill," Bowers said of the tribe.

He said Scottsdale's decision to haul its trash to Cave Creek will cost an estimated $5,000 more each week.

Mark O'Connor, Mesa's recycling and special projects coordinator, said the city has been working for several weeks on alternatives to dumping at Tri-City Landfill.

He said the work began as preparation for leaving the landfill in October, the federal deadline, but was accelerated after last week's washout.

Wong said city officials are aware that pulling out of the landfill would affect the tribe's ability to operate the facility and oversee its closure in October.

He said the city has discussed its options with the tribe.

"Certainly there are a lot of ramifications if we leave," Wong said. "They depend on our revenue. Should we decide to leave, I don't think there will be a problem."

Officials with the tribe could not be reached for comment.

Meanwhile, a bill that would prohibit cities from using the flood-damaged Tri-City Landfill after Oct. 1 has been introduced in the Legislature.

Some, however, wonder what purpose the bill would serve since the landfill must close by October because of federal law.

"It's grandstanding," Bruce Crandall, Mesa public works manager, said of the bill.

"It's already a law that landfills have to come into compliance with federal standards by October 1 or they have to close."

Rep. Sue Grace, R-Phoenix, said she's aware of the federal law, but introduced the bill as a sort of insurance policy to ensure the landfill closes as soon as possible.

"We don't know for certain" if the landfill will close on schedule, Grace said. "They were supposed to do lots of things over the past 20 years that they haven't."

Documents on file at DEQ detail nearly 15 years of warnings issued to the tribe and its municipal customers over the safety of the landfill.

State officials long have complained that the landfill was improperly built, making it susceptible to major floods in the Salt River. Other concerns have involved the legal dumping of hazardous waste during the 1970s.

Indian leaders have maintained the landfill is safe, and despite last week's washout that sent tons of garbage floating down the river, they maintain all federal rules have been followed.

Legislation similar to Grace's was introduced last year.

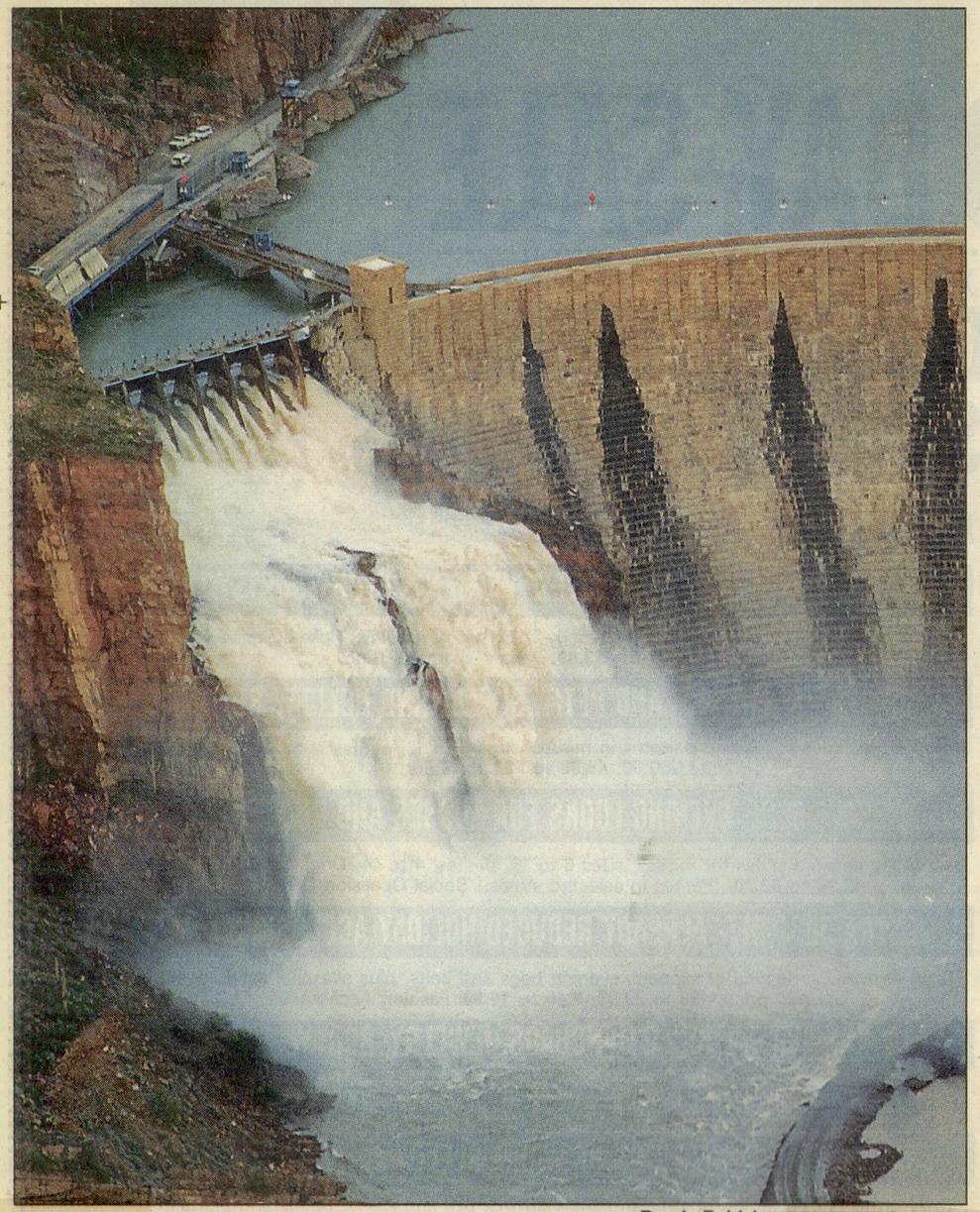
But the effort was dropped when Scottsdale and Mesa officials agreed to work with the tribe and shore up the landfill.

Tribal leaders and DEQ officials announced plans Thursday to shield the landfill from flooding by summer, and to permanently "armor" the facility over the next 12 months.

Grace said the bill targets cities because the Legislature has no authority over the tribe.

She added that the bill, which already has won support from several legislators, could be revised to prohibit cities from using the landfill before October.

"We're going to resolve this," she said. "This bill is an assurance that they're going to do it."



Randy Reid / THE PHOENIX GAZETTE
**Water pours out of Roosevelt Dam Friday to begin its run through the Salt River.**

Randy Reid / THE PHOENIX GAZETTE
**Surging water ripped scaffolding from a half-completed Mill Avenue bridge. The completed half was intact early today. The concrete footings of the unfinished part were expected to survive.**

David McIntyre / Staff photographer

**Channelization spared the Rio Salado area in the foreground from Salt River flooding, but the bridge in the background was less fortunate.**

# Going with the flow

## Flood proves channelization works

By Karina Bland
Staff writer

*Tempe*

It was the best test Jim Jones could have asked for.

When water roared through the usually dry Salt River bed, it gave the newly channelized Rio Salado Project a trial run — and it worked.

"It was the hard way to learn, but I believe it was positive from that standpoint," said Jones, the city's public works director.

The turbulent water, released from Salt River Project dams Jan. 8 because of heavy rains, pounded the Second Mill Avenue Bridge, still under construction.

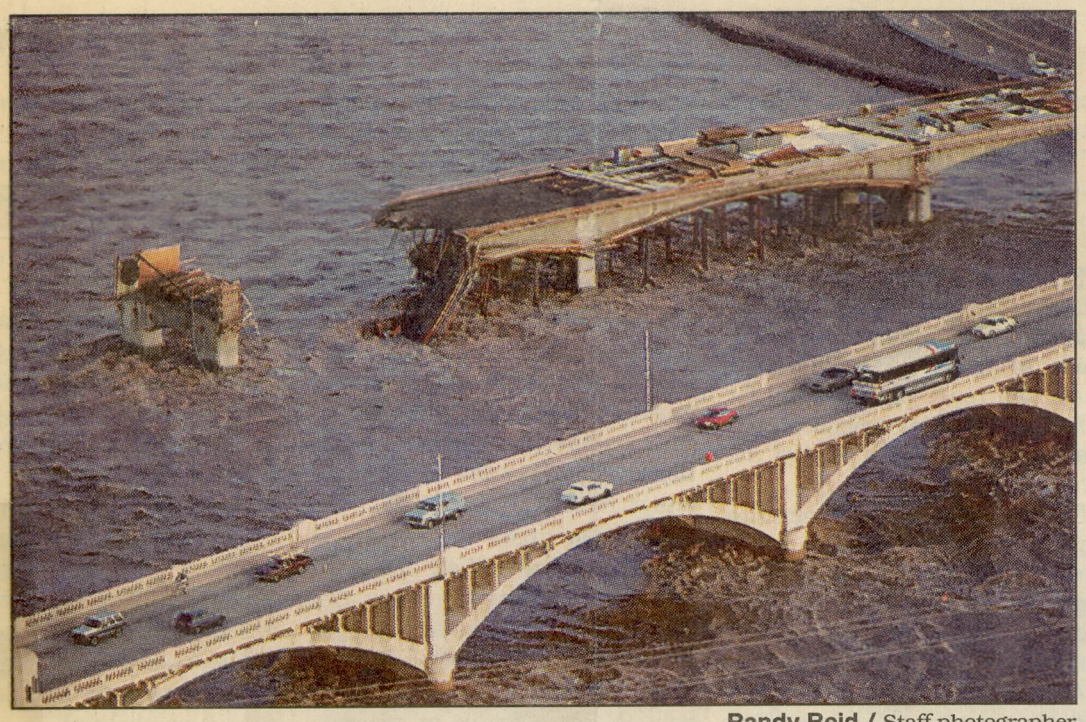
Scaffolding from the unfinished half toppled into the water, adding $1 million to the bridge's price tag and delaying its opening by months.

While devastating for the bridge, the waters proved that channelization for the Rio Salado Project worked. The flow followed the route it was supposed to.

"At least there's a plus to something negative," said Dave Hanna, chairman of the Rio Salado Advisory Commission, a group of citizens.

"We're hardly thrilled that the bridge will be delayed because they lost the false work, but it proved we've confined the river."

See **RIVER**, Page 5



Randy Reid / Staff photographer

**Officials say most of the $1 million in added costs to the flood-damaged Second Mill Avenue Bridge will be covered by the contractor's insurance company.**

## Temporary scaffolding no match for river flow

By Karina Bland
Staff writer

TEMPE — While the Second Mill Avenue Bridge didn't actually fall down, it did make for dramatic footage on the nightly news.

Workers still are picking up the pieces from the thrashing the half-done bridge got Jan. 8 when officials at the Salt River Project released water into the normally dry river after heavy rains.

"We'll go back and repair what was damaged," city Public Works Director Jim Jones said. "Thankfully, there was no damage to the permanent structures."

Scaffolding that protected the unfinished half of the bridge, which spans the river just east of the original, started tumbling into the water about 12:30 p.m.

The completed half remained intact as did the cement footings of the unfinished part of the bridge.

Floodwaters were pouring from dams on the Salt and Verde rivers.

Meeting just before the Granite Reef Dam northeast of Phoenix, the rushes poured over the dam's edge, into the lower Salt River and toward the new bridge.

That meant 92,000 cubic feet of water per second were pounding against the two bridges by 1 p.m., SRP spokeswoman Teri Morris said.

By 4 p.m., when half the scaffolding had collapsed, the

See **BRIDGE**, Page 5

## RIVER

From Page 1

Channelizing the river bed freed hundreds of acres from potential flooding and provided extra space for the Rio Salado Project, a planned lakeside area of restaurants, resorts and recreation areas.

Its $15 million tab was picked up by Tempe, the Maricopa County Flood Control District and the Arizona Department of Transportation.

What it meant during the recent flooding was that no water escaped its banks, and debris from upriver was ushered through rather than being caught on the banks.

"The same type of flood 10 years ago would have done a lot more damage to property and homes," Jones said.

And Tempe will have less cleanup to do than other cities.

"Certainly, they've got a lot more debris," Jones said. "We're worried as much as the others about cleanup for health and safety reasons, but we're going to have less of a problem because we're channelized. Our banks are not nearly as bad as you see in Mesa and Phoenix."

In November 1987, Arizona voters turned down a multibillion-dollar proposal to clean up the Salt River bed and build the Rio Salado Project throughout the Valley.

However, in 1990, Tempe decided to do it alone because its voters had overwhelmingly approved the project.

Watching water tumble through the river bed makes it easier to visualize what the Rio Salado Project will be like, Jones said, adding, "I certainly hope our lake is not going to be as brown and muddy as that."

The channel is dug out with two-tiered banks. No water rose above the lowest jog. Even if it had, only bike trails and hiking paths will be built that far down.

"They will be the sort of things we're willing to get wet," Hanna said. "If you lose some of those once every 15 or 20 years, you can just say, 'Let's put it back.' But no buildings or people."

Even if the river floods once the project is completed, Jones said no businesses or buildings would be affected, even those built on piers.

"They would be up high enough so I wouldn't anticipate any problems with them," he said.

## BRIDGE

From Page 1

water was running at 110,000 cfs.

The scaffolding started collapsing when the water reached about 85,000 cfs, Jones said.

"If you could have held it to 70,000 or 80,000, we would not have had near as much damage," he said.

But SRP spokeswoman Teri Morris said there was little choice because of the heavy storms.

"We decide how much we pass out of the dams, but we had so much coming in that we had to move it," she said.

The flow peaked at 124,000 cfs about 10:15 p.m. The bridge, when finished, is designed to withstand 250,000 cfs.

While some news outlets reported the bridge was collapsing, it was actually plywood forms and steel supports for the concrete that would be poured that toppled into the water.

However, the damage will increase the cost of the bridge to $7.5 million from $6.5 million.

Half is being paid by the state Department of Transportation and half by the city.

Because the city has not taken possession of the bridge, the builder, Kraemer & Sons of Minneapolis, will take the financial hit. Most will be paid by the builder's flood insurance, officials said.

And instead of being done in August, the bridge probably won't open until next fall, Jones said.

While the original Mill Avenue Bridge wasn't damaged, the road beneath it washed away. It was scheduled for removal in six months.

"It just happened early. Nature took care of it," Jones said. "We're looking at probably never rebuilding that, just finishing the bridge as quickly as possible."

The new bridge is being built to relieve traffic congestion and make way for the Rio Salado Project, which will turn the bare bed into a riverside community of parks, restaurants and nightclubs.

The new bridge will carry two lanes of northbound traffic and a bicycle lane. The old bridge will handle southbound traffic.

Monday, January 18, 1993 The Arizona Republic/THE PHOENIX GAZETTE

Michael Ging/The Arizona Republic

At the Tri-City Landfill, a bulldozer attempts to shore up the landfill's banks, which were being eroded Friday by the Salt River.

# Garbage slides into Salt River

## Warnings on Tri-City Landfill were sounded last year

Tom Story/The Arizona Republic

Floodwaters eating away at the landfill's banks uncover trash and wash it down the river. Efforts to hold the water at bay Friday were ineffective.

**By Steve Yozwiak**
The Arizona Republic

Environmentalists' fears were realized Friday when raging floodwaters breached the Tri-City Landfill, north of Mesa, sending rafts of garbage flowing into the usually dry Salt River.

"It's sickening," said Mary Jensen, co-chairwoman of Legacy of the Southwest, an east Valley environmental group, after watching garbage break away from the banks of the landfill and float down the river.

"I think it will be even more shocking when the river starts to recede," she said. "The Tri-City Landfill garbage is going to wind up in Buckeye."

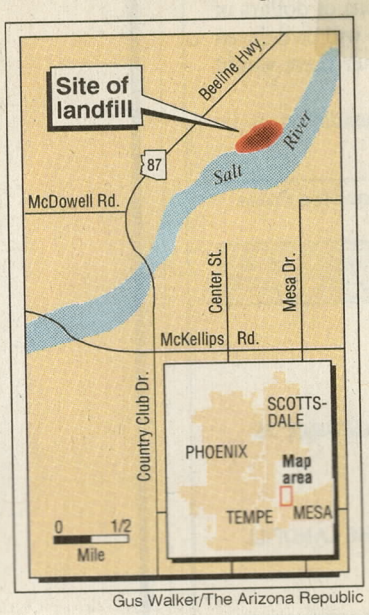
Sen. John McCain, R-Ariz., said Friday that the damage to the landfill isn't the only worry. High waters rushed through dozens of other old landfills along the Salt River in Phoenix that date to the 1950s.

"We don't know what's in those," said McCain, who has worked with the Salt River Pima-Maricopa Indian Community to fortify the Tri-City landfill.

The tribe operates the landfill, which holds two decades of garbage from Scottsdale, Mesa and Tempe.

Other riverbed landfills have been closed. But Tri-City, because it is on a reservation, remains open.

A year ago, state and federal officials began investigating the operation of the landfill after runoff washed debris from the dump into the Salt.




Gus Walker/The Arizona Republic

Because the dump is operated by the tribe, state and federal officials quickly backed off.

The state Department of Environmental Quality said it has no jurisdiction over Indian-operated landfills.

The U.S. Environmental Protection Agency said it is unsure whether it is responsible.

If the landfill, near McDowell Road and the Beeline Highway, was not on Indian land, officials said it would have been closed long ago because it is in a floodplain

— *See* **GARBAGE,** *page B6*

# Garbage sliding into Salt River

— **GARBAGE,** *from page B1*

and is unlined. For years, environmentalists and state officials have worried about contaminants from the landfill seeping into the underground water supply.

Tribal officials repeatedly denied last year that the landfill was being eroded. They maintained that trash in the river came from illegal dumping upstream.

On Friday, there was no doubt.

"It is beginning to erode," said Frank Mertely, manager of the Indian community.

The tribe had dumped dozens of truckloads of large boulders onto the banks of the landfill. But they were not enough to hold off the rising river.

Jensen said she believed that officials from Scottsdale and Mesa should be responsible for cleanup along with the tribe. Those cities continued to ship their garbage to the dump even after the landfill's problems were reported.

She praised Tempe officials for deciding last year to withdraw from Tri-City and send their garbage to a landfill south of Phoenix that meets all federal specifications.

Ray Garrison, Scottsdale's assistant city manager, said his city will haul commercial waste collected this weekend to a county landfill. On Monday, Scottsdale officials will decide whether to quit using Tri-City, he said.

Garrison said Scottsdale continued to use Tri-City because city officials believed that fortifications placed there last year by the Army Corps of Engineers would ensure that the landfill would hold up.

But City Manager Charles Luster said Mesa will continue using Tri-City.

"I don't know that our hauling municipal waste there has anything to do with that (erosion)," Luster said.

On Oct. 1, a federal law will require all municipal landfills to be lined and out of floodplains. That law also gives the EPA jurisdiction over landfills on Indian reservations.

DEQ Director Ed Fox said Friday that tribal officials have said they will close Tri-City and open another landfill outside the floodplain, one that meets federal specifications.

But Mertely said federal funds needed for that have not been received.

Fox, in a letter sent Thursday to the EPA and the Army Corps of Engineers, said he is concerned about the slow federal action.

"This environmental threat is at least 10 years old, and further delay cannot be accepted," Fox said, adding that the state is considering legal action.

Environmentalists said Friday that they do not believe that the tribe will meet the deadline for closing the landfill, that the tribe and city officials simply are "stalling," and that the state is acting too late.

Steve Brittle, president of Don't Waste Arizona, said he is preparing to seek a court order closing Tri-City immediately.

"They (local, state and federal officials) always, for political reasons, have backed off. It shows how irresponsible everyone is," Brittle said.

"It's obvious that things are going to get worse."

# Yuma County farms could be flooded a month

## Officials believe up to 3,500 may have to be evacuated

The Associated Press

GILA BEND — Much of Yuma County's farm belt will be under water for a month once the Gila River is in full flood, the operator of the Painted Rock Dam said Friday.

Releases from the dam were running at nearly 25,000 cubic feet per second Friday, nearly double the 12,500 cfs that can be handled by bridges and flood control structures in the 90 miles to the Colorado River.

Increased flows that began earlier this week began to creep over fields and into homes Friday. The Army Corps of Engineers predicted that releases would reach 30,000 to 32,000 cfs sometime next week and remain at that level for a month, said Col. Robert Van Antwerp.

"But I would caution you that figure is water in the system that we know is coming if we don't get another significant storm," Van Antwerp told reporters at the dam. "If you add in what is forecast we could go to 50 thousand."

The normally dry Gila River, fed by record rainfall since early in January, has filled the reservoir behind Painted Rock Dam and caused flooding downstream toward Yuma.

Officials believe they will have to evacuate as many as 3,500 people who live along the river. More than 700 had left by Friday and most of the rest were believed poised to flee when the water nears their property or comes close to cutting off their road access, county officials said at a press briefing.

Lt. Lewis Wilbur of the Yuma County Sheriff's Office, said 392 people had been evacuated from 139 homes in the Wellton-Mowhawk Valley area. Another 349 people were evacuated from 122 homes in the Yuma area, most of them winter visitors in mobile home courts along the Colorado River, he said.

Officials say the river could form a flood plain up to 4 miles wide, which would inundate thousands of acres of prime agricultural land.

The flooding below the dam also threatens nine Gila River bridges that Van Antwerp said are rated at between 12,000 and 15,000 cfs. Four of the bridges were closed as of Friday and all were likely to be closed by early next week and many could sustain structural damage, Van Antwerp said.

"We are hoping the bridges themselves don't wash downstream," Van Antwerp said.

To avert another threat to the bridge, a demolition team dropped strings of dynamite on a stand of tamarisk trees lining the river about 15 miles upstream from Yuma. The effort, led Thursday by the Yuma County Sheriff's Office, was intended to pulverize the trees so they wouldn't uproot and float downstream to damage bridges.

A Southern Pacific railroad bridge that's higher than road bridges will be used to shuttle emergency supplies and workers across the river under an agreement worked out Friday. The bridge, which crosses the Gila near Roll, is about 17 feet above the water and is expected to withstand the flood, said railroad spokesman Carolynne Born in San Francisco.

The railroad will make a make a locomotive, two boxcars and two passenger cars available starting today, Born said. Officials discussed giving the railroad rocks to shore up the bridge as payment, but that hadn't been worked out yet, she said.

Two freights and one Amtrak passenger train a day travel the route and the emergency train can be put on a siding to avoid them, she said.

While attention has been focused on the river downstream from the dam, the Painted Rock reservoir has backed up nearly to Gila Bend, forming a filthy lake 30 miles long and 5 miles wide.

Fred Burkhardt Jr., emergency services director for the town of Gila Bend, said about a dozen homes have been evacuated at the edge of the reservoir. He said the town's sewage treatment ponds also are under water and sewage is being treated with chlorine and discharged into the river.

The reservoir also is getting garbage from the Tri-City Landfill on the Salt River, Pima, Maricopa Indian Reservation east of Scottsdale, which was eroded by floodwaters on the Salt River, which flows into the Gila.

The Associated Press

**Water from the flooding Gila River spread into a cattle feedlot in the Welton-Mohawk Valley earlier in the week. The rising waters are causing officials to recommend that valley residents evacuate the area. Officials believe they will have to evacuate as many as 3,500 people who live along the river. Livestock also are being moved to higher ground.**

## Lettuce prices soar in nation

The Associated Press

A flood in the Arizona desert is driving up the price of lettuce across the nation.

Flooding this week along the Gila River is hitting the state's most productive farm belt, which also is the leading winter supplier of iceberg lettuce. Farmers rushed to salvage what they could of crops — much of it immature, baseball-sized heads of lettuce.

"You're going to see a lot of product on the market that's not up to standard," said Gary Pasquinelli, whose family has run Pasquinelli Produce Company since 1945. "There's going to be high prices for an inferior product."

This time of year, 75 percent of the nation's iceberg lettuce comes from this area in Yuma County, said Gary Lucier, an agricultural economist for the U.S. Department of Agriculture in Washington, D.C.

Wholesale prices have jumped dramatically, to $24 for a 24-head carton in Arizona, up from $6 last week, Lucier said. But wholesale prices can bounce wildly if there's bad news, then drop back closer to normal in a few days, he said: "You just talk about a disaster and the price triples."

He also said retailers facing consumer resistance often absorb big wholesale price jumps.

At the Grand Union in Bergenfield, N.J., lettuce was going for 99 cents a head this week, up just a dime from last week. The story was the same at an Indianapolis Safeway and a Vons market in Los Angeles.

But some bigger retail price jumps are being reported — even by stores with lettuce sources outside Arizona.

The Food Lion chain, based in Salisbury, N.C., buys its lettuce from Florida. But reduced supply nationwide has been forced it to charge $1.29 a head for iceberg lettuce this week, up from 49 cents a few weeks ago, said spokesman Mike Mozingo.

Consumers should get some relief in April as lettuce matures in California's central San Joaquin Valley, said Steve Skuba, a USDA market analyst in Phoenix.

But for Arizona farmers, the trouble is just beginning.

Tribune Newspapers, Saturday, February 27, 1993

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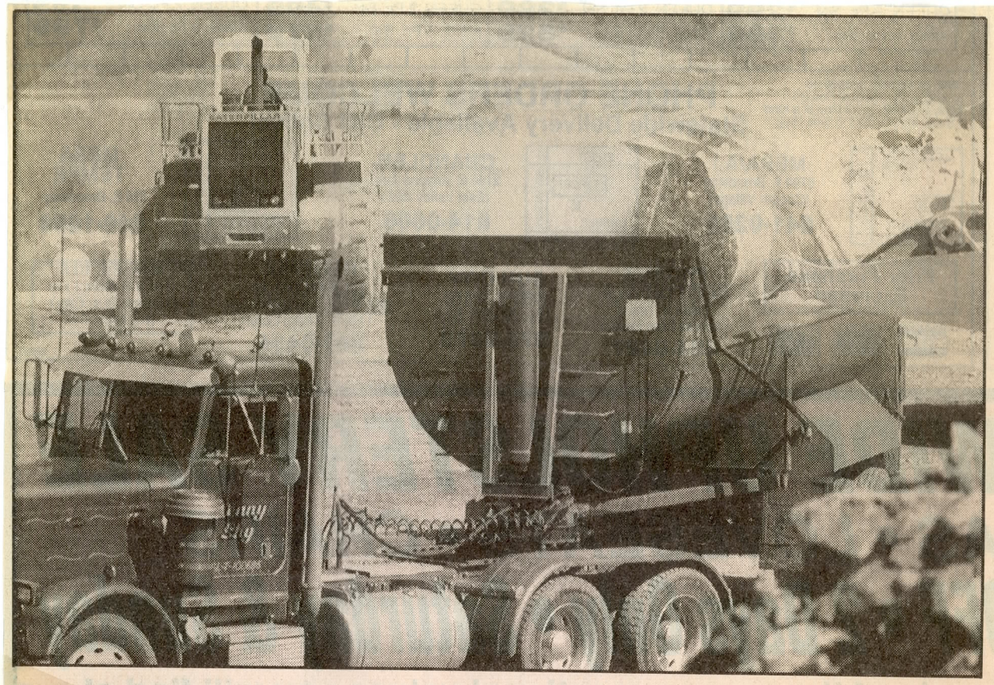
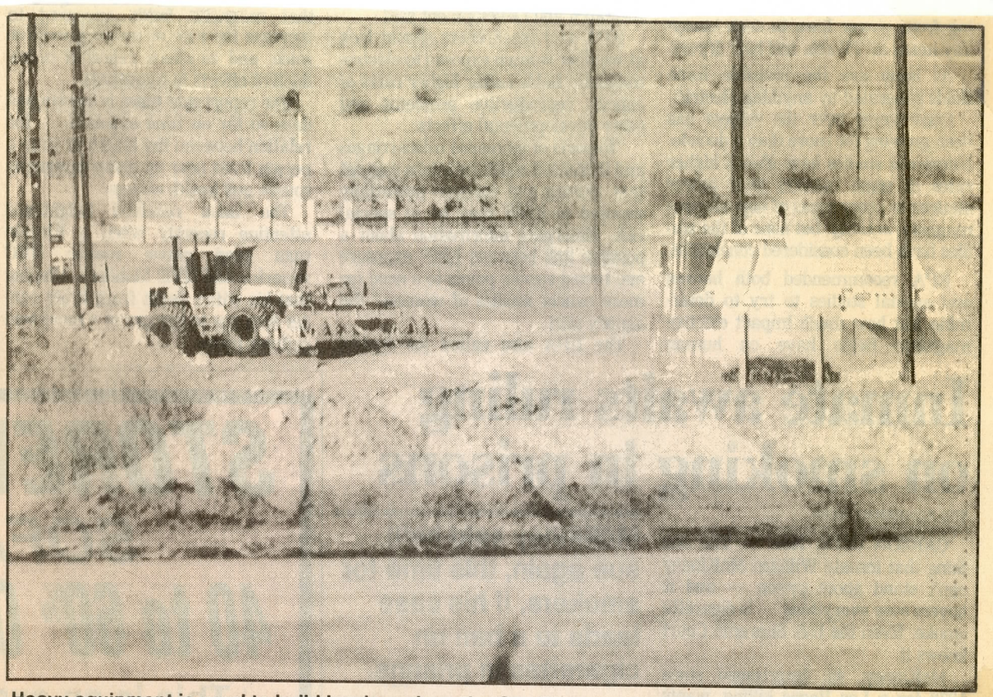


Trucks are loaded with rocks to help stop floodwaters.



Heavy equipment is used to build barriers along the Gila River.

IN THE WAKE OF THE STORM

# Valley gets break in rain, flooding

Michael Chow / THE PHOENIX GAZETTE

Trash washed out of the Tri-City Landfill covers the north bank of the Salt River at Hayden Road. Experts fear more trash will be left to rot in the riverbed when the water recedes.

## Water releases cut back despite state's drenching

**Susan Herold**
THE PHOENIX GAZETTE

The chain of storms that have wreaked havoc on Arizona are far from over, but forecasters say with any luck, a repeat of last week's flooding is not expected soon.

At least not for another six or seven days.

"It looks like a lot less rain coming in the next few days, so that's automatically better," said John Underhill of the Salt River Project's emergency operations center. "We don't expect the same situation we had with record water releases that we had last Friday."

he National Weather Service said 1.84 inches fell at Sky Harbor International Airport before the skies began to clear early today. An automatic rain gauge in the McDowell Mountains registered 2.48 inches from Sunday's storm, and up to 8 inches of snow fell on the watershed's higher elevations.

Forecasters say another storm packing a similar punch is expected late Tuesday and Wednesday.

Heavy rains, especially in the Sunflower area, prompted SRP to boost the flow at Granite Reef Dam to 63,000 cubic feet per second about 6 a.m. today. That was up from the 46,500 cfs flowing over the dam at midnight and the 36,000 cfs flow Sunday.

See ■STORMS, Page A6

## ■ STORMS

From A1

Jeff Lane, an SRP spokesman, said today's releases into the Salt River probably would not exceed 80,000 cfs.

SRP officials say they don't expect to release the 124,000 cfs that raged through the Salt River on Friday, leaving flooding, evacuations and bridge closures in its wake.

"We don't anticipate going up that high. Our worst-case scenario for the week is 70,000 to 100,000 cfs," Underhill said.

Forecasters say after Wednesday's storm moves through the state, there should be a temporary reprieve from the rains. Meteorologist Craig Ellis predicted dry weather through the weekend, with another large storm anticipated late Sunday or Monday.

"We can expect a lot of rain from that one, with the potential for flooding and flash flooding," Ellis said.

As the water levels in the normally dry Salt River began subsiding Sunday, piles of rotting trash and debris were scattered along the river's edge. Much of the garbage probably came from the Tri-City Landfill north of Mesa, which was partially swept away Friday.

Up to 9 inches of rain has fallen on parts of the Salt and Verde rivers' 13,000-square mile watershed since last Wednesday, gorging normally dry washes and filling the Valley's water storage system to capacity.

The rains caused record water releases Friday into the Salt River and flooding in low-lying areas that rivaled the February 1980 floods, when nine days of rain led to $63 million in damages and four deaths statewide.

No deaths or serious injuries have been reported in the latest bout of weather, but officials have yet to estimate how much property has been damaged.

Emergency workers hoped to canvass the state today to for a preliminary damage estimate in order to qualify for federal aid.

"We really can't put a number on it yet. In some places, we'll have to wait for the water to go down before we can figure it out," said Karen Paulsen, a spokeswoman for the state Division of Emergency Management.

Paulsen said if preliminary damage estimates are completed Tuesday, Arizona could learn by next week whether it is eligible for low-interest loans for homes and business damaged by the floods.

Roads, dams, bridges and other public structures that were damaged could receive 25 percent of the cost of reconstruction from the federal government, she said.

Sen. Dennis DeConcini, D-Ariz., toured parts of the state Sunday and said he was pleased with the state and federal response.

On Friday, Gov. Fife Symington declared a flood emergency, the first step in obtaining federal assistance for rebuilding efforts.

The Arizona National Guard has activated 60 members since Friday to assist in rescues, sandbagging and flood-control efforts throughout the state. Maj. Dean LeVay said more members have been put on standby in case flooding worsens.

A flood warning is in effect for the Gila River below the Coolidge Dam, which is releasing record amounts of water that could swamp communities downstream, officials said.

The dam, 80 miles southeast of Phoenix, is expected to release 30,000 cfs Tuesday to keep water from cresting over the spillways. The most water that has been released from the dam is 5,000 cfs, but Bureau of Reclamation officials say that the spillways are constructed to handled 120,000 cfs.

Ellis said people living downstream in the communities of Winkleman, Kearney, Hayden, Riverside and Kelvin should take precautions to protect life and property from potential flooding in the Gila River. An evacuation order for about 200 residents in the Holly Acres area west of Phoenix was lifted during the weekend, but residents were told to stay on alert in case the Salt River began surging, county officials said.

Because of the contamination from landfills and broken sewage lines, the state Department of Health Services issued a public health advisory warning that water or food exposed to floodwaters should not be consumed.

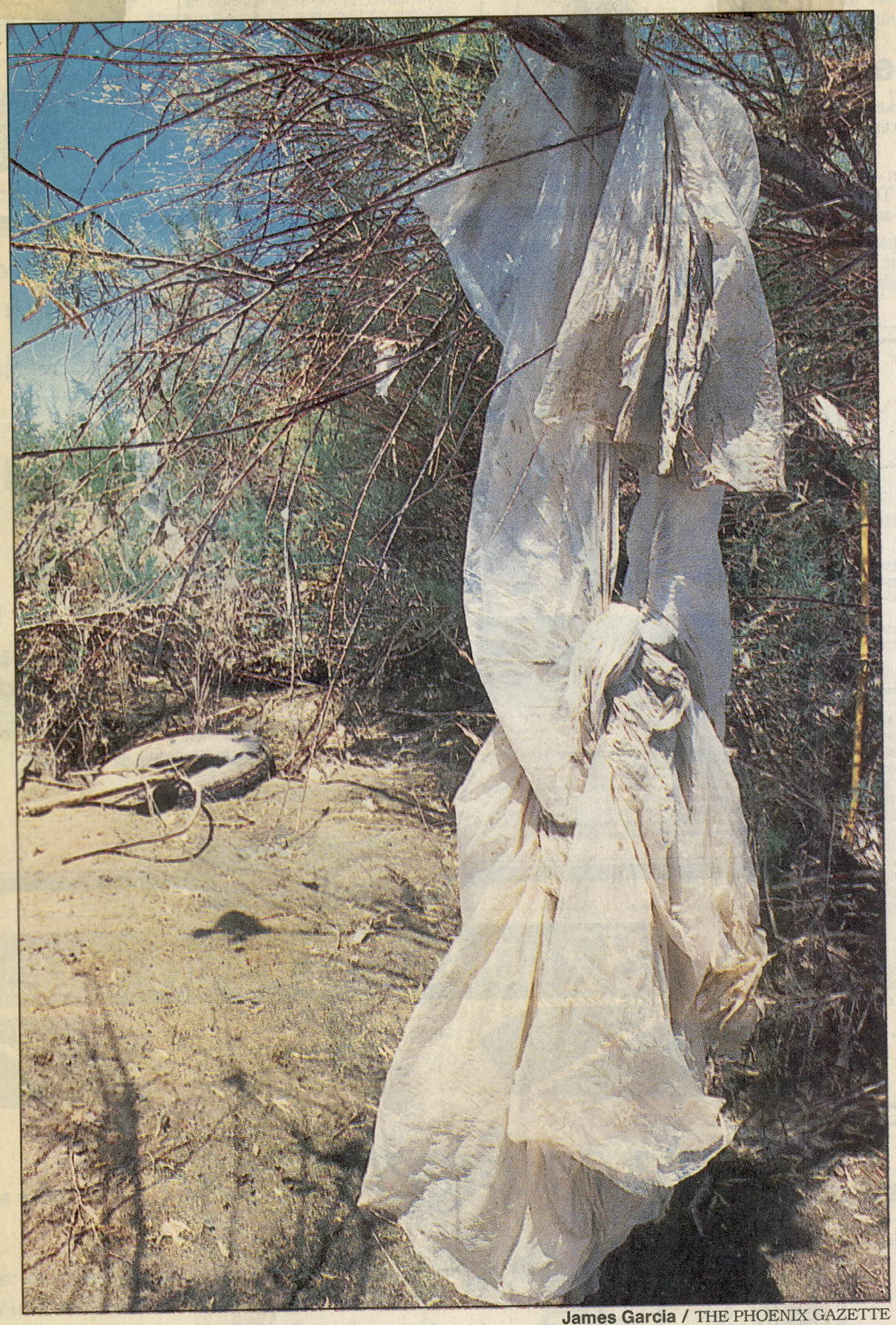
Officials said the move is a precautionary measure and that there is not an indication of widespread health problems. However, testing will be conducted to see if there is a "residual effect" from the floodwaters, said Daniel Roe, spokesman for the Division of Emergency Management.

By Sunday afternoon, a 400-foot-by-80-foot section of the Tri-City Landfill was missing, state officials said. Despite the breach in the landfill, which is operated by the Salt River Pima-Maricopa Indian Community, garbage from Mesa and Scottsdale continued to be dumped at the site.

"We were out there yesterday (Saturday), and we saw a number of Mesa trucks dumping trash," John Godec, DEQ spokesman, said Sunday. "There's trash going in one side and coming out the other side in the river."

Who will pay for cleaning up waste from the landfill is still unknown, Godec said. DEQ Director Ed Fox said he expects the Indian communities and the cities that use the landfill to pay the cost, but there has been no agreement from those involved with the 400-acre dump.

Godec also said that state officials are worried about ground-water contamination and that testing will determine if the water table is contaminated.



James Garcia / THE PHOENIX GAZETTE

**Winter floods turned prime Gila River riparian areas between 91st and 115th avenues into a dumping ground. State and volunteer efforts aim to return the area to pristine condition.**

# Reclaiming the habitat

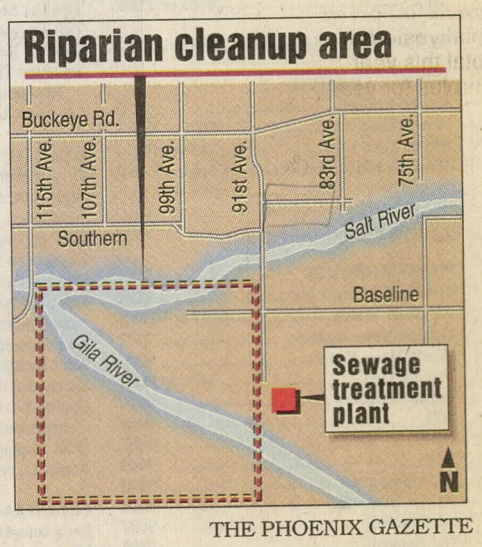
## Volunteers to tackle cleanup of flood-ravaged river areas

**By David Hoye**
THE PHOENIX GAZETTE

Last fall, a walk along the Gila River southwest of Phoenix was idyllic: forests of salt cedar, reeds and willows alive with falcons, endangered Yuma clapper rails and other wildlife.

Today, the river habitat below Phoenix's sewage treatment plant at 91st Avenue is no longer so pastoral, thanks to record flooding that scoured the area in January and February.

State officials are still assessing the damage to the vegetation and wildlife, and may not know until June or July exactly how much was lost or destroyed by the raging water.




THE PHOENIX GAZETTE

But one ugly fact is clear: The vegetation-rich stretch of river acted like a giant spaghetti strainer, capturing tons of garbage and debris washed from an upstream landfill and other sources.

The state Game and Fish Department said last week that it will cost "six figures" to clean a three-mile stretch of the river's most vital habitat.

The agency prefers not to be more specific about the cleanup cost because the job will be put out to bid in the next several weeks.

Department representatives, as well as Federal Emergency Management Agency officials, have flown over the river and walked its banks to estimate how much gar-

See ■RIVER, Page B2

> "It's unbelievable. Pretty much of a hazard for people and wildlife."
>
> **Lisa Anderson**
> Environmental compliance specialist, Game and Fish Department

PHOENIX GAZETTE
MAY 10, 1993

# ■ RIVER

From B1

bage and debris must be removed.

Along one bank, they said, the garbage covers an area 150 feet wide, 250 feet long and 8 feet deep.

Lisa Anderson, environmental compliance specialist for the department, said about half the material is construction debris. Household garbage and mobile home insulation make up most of the rest.

"It's unbelievable. Pretty much of a hazard for people and wildlife," she said.

Anderson said 75 percent of the cost is expected to be paid by FEMA, with the balance coming from the state and other sources.

It is widely acknowledged that most of the garbage and debris that washed into the Gila and its upstream cousin, the Salt River, came from the Tri-City Landfill east of Mesa.

The facility, which is owned and operated by the Salt River Pima-Maricopa Indian Community, was partially washed out by floodwaters in early January.

Planning also continues on a larger-scale cleanup of the Salt River, which flows through the Valley and joins the Gila near 107th Avenue.

Rick Elder, a Salt River Project manager who is coordinating the Great Salt River Cleanup, said that about 22,000 volunteers have signed up to participate in a one-day cleanup on May 22.

The total includes nearly 10,000 Boy Scouts and many other groups and individuals who have promised to help pick up trash, old tires and other debris that have coated the riverbanks since January.

State officials have sent out crews to remove the most dangerous debris from the river, including potentially hazardous waste.

Today a team of inmates from the Arizona State Prison at Florence was to be bused to the river near Central Avenue to help remove about 20,000 used tires.

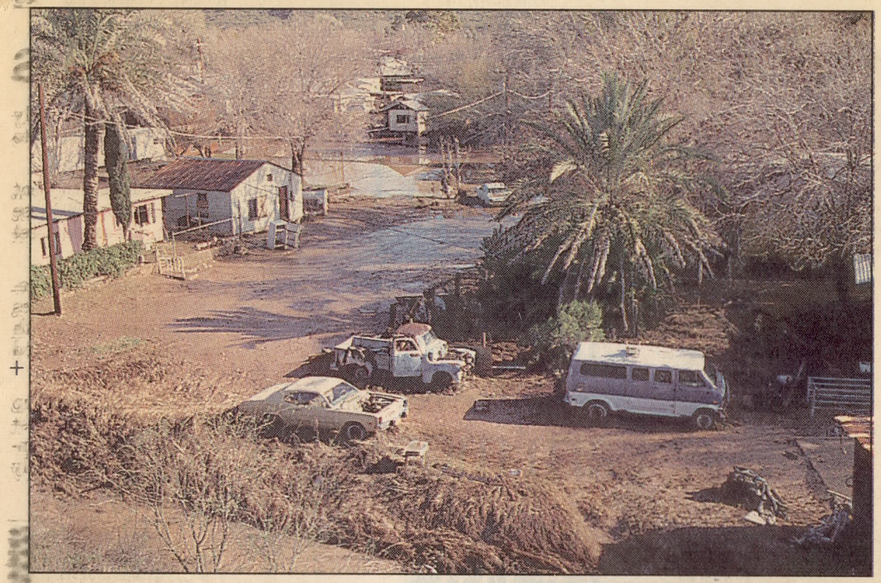
Volunteers for the May 22 event will be mailed a brochure describing when and where they should arrive, and how they should go about picking up debris. The mailing will include safety tips.

Elder said a more detailed videotaped message should be available soon to volunteer groups.

Volunteers will go to one of four staging areas — Mesa Community College, Arizona State University's parking lot No. 59, Wesley Bolin Plaza in Phoenix, and the Phoenix-Goodyear Municipal Airport.

From there, the volunteers will be bused to locations along a 39-mile stretch of Salt River from the Granite Reef Diversion Dam to Dysart Road.

The river will be divided into quarter-mile sections, each with its own base where organizers and medical personnel will be posted, and where garbage bags, gloves and other materials will be stockpiled. For more information about the cleanup, call 207-7777.



Tom Tingle / THE PHOENIX GAZETTE

**BEFORE:** The part of Winkelman known as The Flats was relatively dry Tuesday . . .

James Garcia / THE PHOENIX GAZETTE

**AFTER:** But Gila River water from Coolidge Dam hit the area, and the rest of the town, on Wednesday.

# Under water in WINKELMAN

## Symington vows state help, but residents doubt it will be enough

By Michael Murphy
THE PHOENIX GAZETTE

WINKELMAN — Gov. Fife Symington declared the flooded area of town "a stunning sight" and said he is releasing $100,000 in state funds for housing relief.

But some of the nearly 400 residents evacuated from their homes expressed skepticism that the funds would provide adequate relief.

"It's not enough," said Guillermo Chavez, 72, who lost his home in The Flats. Chavez said he has no flood insurance and little in savings.

"I don't know what I'm going to do," he said. "My home will be completely gone by the time the flooding has finished."

About 300 Winkelman residents were evacuated Wednesday from homes that had been thought safe from the rising water. Others were evacuated last week. By late Wednesday, water covered rooftops of some houses in The Flats, a low-lying section of town next to the river.

Symington, who arrived in a National Guard helicopter Wednesday evening, said, "It's the first time I've been face to face with a flood and seeing so many homes under water since my stint in the war. It's a stunning sight."

The governor served a tour of duty in Thailand in 1970.

Symington, who plans to return to Winkelman Friday, said the funds would come from the state Commerce Department.

He also plans to seek federal emergency assistance.

About 100 evacuees gathered at the Hayden Winkelman High School cafeteria, where the Red Cross provided meals. Others huddled at the gymnasium, where cots had been set up.

One evacuee, Jerry Bracamonte, also wondered whether the $100,000 would go very far to help repair 140 homes damaged by water in The Flats area.

"That's not very much," she said.

Another evacuee, however, said, "Every little bit helps."

Bob Lorona, who was sharing a meal with his wife and two children at the cafeteria, said although their home, purchased only two years ago, will be a total loss, they plan to stay in Winkelman.

"We don't have anywhere else to go," he said. "We've got many friends here and family. Everybody pulled together."

Bonnie Mariscal, 30, agreed, saying, "If they were trying to locate us, where are they going to put us?"

"I don't want to leave the area. I grew up here," said Mariscal, who, along with her husband, Pablo, and five children, were evacuated from The Flats and had been sleeping in the gym.

Mariscal, who has no flood insurance, said many residents are worried they will never get back into their homes.

"From what they tell us, the waters won't recede for 10 days," she said.

The town of about 1,000 has been swamped by water releases from Coolidge Dam, about 20 miles upstream from the Gila River, as well as from the San Pedro River, which joins the Gila at Winkelman.

Chavez, who said his wife had to be hospitalized during the evacuation, was not as optimistic. A retiree who spent 43 years in the Hayden mine, Chavez said he had only $4,000 with which to rebuild.

"My wife is taking it very, very serious," he said. "She's crying because we've got no insurance, no money."

## The flood of 1993

# Floods often tested Valley's preparedness

TEMPE TRIBUNE
JAN. 9, 1993

SCOTT PORTER/Tribune

**The Blue Paint Bridge over the Salt River is covered during the 1980 flood.**

**By Mike Tulumello and Joe Costanza**
Tribune writers

If you think the floods that hit the Valley on Friday are a rarity, think again.

As recently as 1978, '79 and '80, floods tormented the Valley. At the time, the area was about as prepared for rain as Europe was for the plague.

When the Salt River Project's reservoirs on the Salt and Verde rivers were filled by runoff, SRP sent huge water releases into the normally dry riverbed.

And with as few as two reliable bridges over the river, a half-hour commute turned into a three-hour adventure for the estimated 200,000 Valley residents who crossed twice each day.

In those years, Valley commuters lined up for miles around the Mill Avenue Bridge — the only reliable road spanning the surging Salt River in the East Valley.

Drivers waiting in line on Mill would be cheered by rowdy students standing on the balconies of nearby restaurants.

An Apache Junction couple told of a five-hour trip home from Phoenix Sky Harbor International Airport.

In May 1979 eight cars were stranded — and one woman nearly killed — trying to cross a flooded Country Club Drive in Mesa. State highway officials allowed the road to remain open despite a water release of 1,300 cubic feet per second. A state official blamed drivers "who don't watch where they're going."

The darkest of these times was just plain scary.

Starting on Feb. 13, 1980, measurable rain fell for nine straight days. At the time, SRP's reservoirs were about 90 percent full.

On Feb. 16, SRP released a record 180,000 cfs into the river. And with another big storm on the way, Stewart Mountain Dam northeast of Mesa was thought to be in danger of giving way.

But the next storm wasn't so bad, and the crisis passed. Yet the water ran through the riverbed off and on for months, serving as a reminder of nature's unpredictable powers.

The floods prompted calls by political leaders for building more dams, particularly the controversial Orme Dam that would have inundated most of the Fort McDowell Mohave-Apache Indian Community.

Environmentalists and supporters of the Indians urged building more bridges.

And when alternatives to Orme were proposed by federal engineers, Orme was dropped and the bridges were built. And subsequent floods caused fewer problems.

SRP officials were sensitized to the need to keep flood control — not just water storage — in mind as they operated their dams.

The problem of overgrazing by cattle on the Tonto National Forest watershed also was viewed as contributing to the flooding.

The problem of allowing development in flood plains came into focus as well.

Part of the federal plan finalized in 1984 to increase storage capacity on the watersheds was a new dam on the Verde River, but that was killed in the late '80s when environmentalists charged it would damage fragile bald eagle habitat. Construction began in 1991 on another part of the plan, increasing the height of Roosevelt Dam on the Salt River.

SRP officials warned in late 1991 that work on the dam would severely limit Roosevelt's storage capacity and thus increase the likelihood of both flooding and drought in the Valley until work was completed in 1995.

In recalling the floods of the late '70s and 1980, William LoPiano, a former mayor of Tempe who has lived in the Valley for 42 years, said, "We finally changed our philosophy of saying, 'We're in a desert and there is nothing that rain or water release could do to us.' "

Actually, despite the "Valley of the Sun" nickname, flooding always has been part of the area's challenges.

The first big recorded flood occurred in 1891, when a 300,000 cfs deluge rampaged through the Valley. This flood killed 60 and forced hundreds from their homes, and caused millions of dollars in damage.

"There were no dams then, and everyone started thinking about building them after that flood of '91," said Susan Fitzgerald, a public information officer for the Maricopa County Flood Control District.

Another flood roared through in 1905.

And in 1919, a flood destroyed the fancy new $100,000 bridge built by Tempe near the present Mill Avenue Bridge.

In Mesa during this same flood, two boys who were duck hunting in the riverbed near what is now Country Club Drive avoided a watery death by clinging to the top of a cottonwood tree for a day and a night.

In 1921, floodwater made its way into the state Capitol. The flood prompted the building of the Cave Creek dam, which was finished in 1923.

There also were major floods in 1943 and four in the 1950s, when one caused major problems at Luke Air Force Base in the west Valley.

Other floods took place in 1965 and '72.

In March 1982, rains prompted a release of up to 9,000 cfs. That in turn led to the closure of 16 riverbed crossings.

## A history of floods

Here are some major dates in local flood history:

**1891:** The Salt River runs wild, with 300,000 cubic feet of water per second rampaging through the Valley, killing 60 people. Hundreds forced from homes. Pressure builds for upstream dams; eventually Roosevelt Dam is constructed.

**1921:** Flooding damages state Capitol; Cave Creek Dam construction begins and is finished in 1923.

**1978:** Major floods in March and December. Traffic snarled as Valley split in two with only three working bridges across the Salt River to serve nearly 1.5 million people.

In March, three people reported killed statewide with $44 million in damage. About 120,000 cfs released into Salt River. In December, eight reported killed statewide, including six swept away while driving on Interstate 17 bridge over Agua Fria River at Black Canyon City. Release of 115,000 cfs into Salt River.

**1979:** In January, all but four bridges are closed as 66,000 cfs released into Salt River. Releases of various sizes continue for months. In December, intermittent storms lead to more releases.

**1980:** Four deaths statewide. Nine straight days of rain in February lead to record 180,000 cfs release into Salt River by Salt River Project. Stewart Mountain Dam northeast of Mesa feared to be weakening, but crisis passes. River runs for months, leading to popularity of bus and even train service. Pressure builds for Orme Dam northeast of Mesa, but plan is dropped. Bridges built instead.

**1983:** Southern, eastern Arizona are devastated, 13 killed. Only minor damage in Valley, where new bridges have minimized problems.

**1993:** Water releases expected to hit 150,000 cfs.

THE
PHOENIX
GAZETTE

# OPINIONS

Saturday
1/30/93

# Get it straight

## Flood water not 'released'; dams not for flood control

By EARL ZARBIN

*Phoenix resident Zarbin is a retired newspaper editor and author of several books, including a history of the Salt River Project.*

GUEST VOICE

When the Valley and state no longer are threatened by flood water, the people responsible for the editorial content of Phoenix Newspapers' daily publications should join their reporters and editors in touring Salt River Project dams and facilities.

By doing that, and by listening carefully to what SRP's workers tell them, the next time rain on the watersheds of the Salt and Verde rivers produces runoff in excess of what the water storage reservoirs can hold, the news accounts printed by *The Phoenix Gazette* and *The Arizona Republic* can avoid inaccuracies and inanities such as:

"Roughly 110,000 cubic feet of water per second was being released from Granite Reef Dam." "SRP hydrologists Saturday tightened the huge faucets at the Granite Reef Diversion dam." "Rains ... could force the Salt River Project to double its current releases of water," and others.

The first thing the newspaper people might hear on the tour is that water is not released from Granite Reef Diversion Dam into the Salt River. As the name of the dam suggests, its mission is to divert water. Water coming down the river is stopped by the dam, which is 1,000 feet long, so the flow can be diverted into the Arizona Canal at the dam's north end and the Southern Canal at the south end. The canals carry the water to other canals and laterals so it can be directed to land receiving irrigation, and to city-owned purification plants so it can be treated and distributed to homes, businesses, schools, etc., for drinking and other purposes.

When more water flows in the river than the diversion dam can divert into the canals, the water climbs the dam's face and spills into the river bed below. SRP has no way of stopping the water from running over the dam. SRP can neither turn on nor turn off a faucet or a tap. SRP can divert a maximum of 3,600 cubic feet of water per second into the Arizona and Southern canals. Beyond that, additional water finds its way over the dam. The dam functions exactly as it was designed when it was authorized for construction in 1906.

The second thing news people might learn is that the primary purpose of SRP's four Salt River and two Verde River storage dams is to hold water in reservoirs for irrigation and domestic use, and to produce hydroelectricity (secondary benefits are recreational and scenic). Only the dams on the Salt River generate electricity.

As noted, the dams were built to store water, which is water conservation of the highest order, and not to control downstream flooding. The dams were not designed so that the reservoirs behind them could be drained in order to create space for flood runoff. The SRP's mission in operating these dams is to store as much water as possible for future use.

(To insure the safety of the Salt River dams, the U.S. Bureau of Reclamation, in cooperation with the SRP, is currently overseeing the enlargement of Roosevelt Dam — 77 feet will be added to its height, which means the reservoir will be larger. Part of the additional lake space behind the enlarged dam will be dedicated to preventing floods from coming down the Salt River.

(A new Verde River dam, Cliff, was planned for the same purpose, but environmental groups derailed its construction.)

The watersheds of the Salt and Verde rivers are nearly the same, each with about 6,500 square miles. However, water storage space behind the Verde River's two dams is about one-fifth that of the Salt River's four dams. To assure the dams are operated safely and to maximize water storage for the Valley (surface water is cheaper to obtain than water pumped from below the ground), the SRP monitors weather reports. If the reservoirs are full, and the managers believe runoff on the watersheds will produce floods, limited quantities of water might be released from the reservoirs.

However, once flooding begins and reservoirs can store no more water, the SRP does not release water. I repeat,



once flooding begins and reservoirs can store no more water, the SRP does not release water. What the SRP does do is open flood gates at each dam so that water entering the reservoirs is immediately allowed to flow out down the spillways.

If flood gates were not opened, water entering the reservoirs would soon overtop the dams. Water running over the dams for long periods might cause them to break apart. Hence, when the Verde and Salt rivers are in flood stage, all the SRP does is clear the way for excess water to pass through the dams and reservoir system. The SRP does not release the water.

The difference between passing through and releasing water might seem minor to newspaper writers and editors (and to TV and radio broadcasters), but one is correct, the other is not. One describes what really is happening, the other does not. Readers deserve an accurate description of what is happening and why. It might seem convenient to say, "The SRP is releasing water," when what the SRP actually is doing is operating its dams and reservoirs so that flood water can pass through without threatening the integrity of the dams.

One further matter. The Salt River through the Valley is not "usually" or "normally" dry. It is artificially dry, made so by the upstream storage of water. This might seem like nit-picking, but newspaper readers should know that the Salt River is a live stream, which nature periodically demonstrates for us.

ARIZONA REPUBLIC JAN. 24, 1993

# Past lessons failed to avert deaths, damage

**By Mark Shaffer and Steve Yozwiak**
The Arizona Republic

Arizona has learned many lessons about floods in the past decade.

But there's a long way to go: This month's flooding in the state damaged nearly 600 homes, contributed to at least four deaths and caused more than $60 million in property damage.

However, it took a back seat to the two most recent major floods. Property damage was about four times higher in 1983. And in 1980, three times as many deaths as this year were reported, when the Salt River carried the most water in recorded history.

But this year's disaster has raised questions about what flood-control measures should be taken across the state. Should two large dams once planned by the Salt River Project be built? Why did this year's flooding take on such major proportions despite there not being as much rainfall as in past floods?

— See **CONTROVERSY**, page A1

**CONTROVERSY**, *from page A1*

One of the dams, Orme, would have been built at the confluence of the Salt and Verde Rivers, northeast of Mesa. The other, Cliff Dam, would have been built between Bartlett and Horseshoe dams on the Verde, about 20 miles north of Orme Dam.

Without advocating that it be built, Sen. John McCain of Arizona, at a news conference with Gov. Fife Symington at the height of the flooding in Phoenix two weeks ago, said Cliff Dam would have significantly reduced water flows through the Valley.

And in a letter to the editor of *The Arizona Republic* published last week, former Gov. Jack Williams suggested that the Valley would have been protected from recent floods had Orme Dam been built.

Such talk infuriates environmentalists who worked for nearly a decade to prove to the federal Bureau of Reclamation that neither dam was needed.

## Dam threatened eagles

Cliff Dam was stopped during the early 1980s, in part because it would have inundated nesting sites of bald eagles. Orme Dam also was halted by environmental concerns, and because it would have flooded portions of the Salt River Pima-Maricopa Indian Community.

Ironically, it is the Tri-City Landfill, owned by the tribe, that may come out of this month's floods sustaining the most damage of any property in the state.

In the 1970s, Orme and Cliff dams were touted as ways to protect the Valley's bridges, many of which had been washed out repeatedly. Eventually, the bridges were rebuilt to withstand exactly the kind of flooding that occurred this month. Except for one bridge under construction in Tempe, all of them held this time.

Williams has acknowledged that environmentalists have sway and that neither Orme or Cliff will ever be built.

"Everybody's against it (dam building) today," he said. "There's a new philosophy abroad that the old-timers never had to deal with.

"Had they been faced with it (philosophy of not building dams), we'd never have had Phoenix or the other Valley towns."

The newest floods came as Arizona's congressional delegation held hearings throughout the state on environmentalists'proposal to protect from dams 1,700 miles along 40 rivers by designating them "wild and scenic."

## Channels have faded

Gail Peters, state director of American Rivers, a group behind the proposal, said that rather than prevent floods, dams on the state's largest rivers can help promote floods.

"If you look at the rivers that are flooding, all are downstream of dams," Peters said.

The old river channels that once cut deep into the desert have faded over time, leaving the rivers shallow and broad, Peters said.

"Having a healthy channel is more important ... so the river knows where it belongs," she said.

"What needs to be looked at is a wiser use of the flood plains, and not use them for homes."

Don Gohmert, a conservationist, agrees.

"Sure, that's the ideal situation. But people are wanting to move to Arizona, and developers own property, and they want to sell all the property they can," said Gohmert, who is with the U.S. Deparment of Agriculture's Soil Conservation Service.

## Small vs. large dams

Gohmert also said environmentalists likely would stop any new large dam. Maybe what is needed for Arizona, however, isn't large dams, but smaller levees to protect existing developments,he said.

These smaller structures feed areas of vegetation, which help suck runoff into the ground, recharging aquifers.

Since the late 1970s, the Soil Conservation Service has built 71 such structures, mostly in rural Arizona, where this month's flooding was the worst. The cost was about $17.7 million,a fraction of the cost of large dams.

The agency is completing plans to help guard Willcox in southeastern Arizona; Chino Valley, north of Prescott; and Kayenta, on the Navajo Indian Reservation.

Dan Phillips, supervisor of water-resources operations for the SRP, is more concerned with the past. He said he and other experts in the field were surprised by the amount of runoff from the Jan. 6-9 rains.

Phillips said the SRP had released more than 2.1 million acre-feet of water by this weekend, more than the storage capacity of its six reservoirs: Roosevelt, Apache, Saguaro, Canyon, Bartlett and Horseshoe. An acre-foot of water, or 325,851 gallons, would cover an acre of land to depth of 1 foot and would meet the needs of a family of five for a year.

"There was an average of 3 to 3½ inches of rain for those four days on the watershed, compared to 5 inches during the storms of 1978 to '80," Phillips said.

"Yet, the water coming into the system was almost the same. You would rank this as a major storm but certainly not a storm of record. Yet, the Verde River had a record inflow.

"We had a relatively dry fall, and it was wet in December, but not that wet (for ground saturation). There was also just an average amount of snowpack which melted. It's something we're studying with a great deal of interest."

## Record inflow

When the SRP measured its peak flow of 124,000 cubic feet per second Jan. 8, 114,000 cfs were coming down the Verde part of the system, Phillips said. At one point, 137,000 cfs were flowing into Horseshoe Dam — the largest amount ever, far exceeding the previous record of 100,000 cfs in March 1938, he said.

There also was a near record inflow into the lower Salt River reservoirs — Apache, Canyon and Saguaro lakes — from the Four Peaks and Superstition Mountain areas, Phillips said.

"Without flood-control space on the Verde, this will happen again," Phillips said.

"And there's nothing planned that will alter the present situation."

Planning has been a problem for SRP officials for years, especially in how to handle fluctuations in reservoir levels.

In May 1988, all SRP reservoirs were full after heavy runoff from snowmelt. But by early 1991, the state appeared to be entering a major drought cycle in which Roosevelt Lake had been reduced to 40 percent of its capacity. The Valley was sucking up major amounts of groundwater,and the SRP was planning to reduce allocations to users. That all changed with a major storm in March 1991 that filled the reservoirs.

## Built for conservation

Each of the dams in the SRP system was built for water conservation rather than flood control. There's a big difference.

Water from flood-control dams can be released at the bottom, and spillways are cut deep into the dam from the top.

Conservation dams have very high spillways and must rely on small pipelines to remove water if it is below the spillways. Roosevelt Dam, for example, must be at 80 percent capacity before water reaches the spillway.

Despite the reliance on conservation dams and the release of more water, some safeguards downstream have proved quite reliable.

Susan Fitzgerald, public-information officer for the Maricopa County Flood Control District, said efforts to channelize and keep brush and trees out of the Salt River bottom were "extremely effective" in reducing damage from the flood.

"There has been more than $10 million spent since 1991 in clearing the salt cedar out of the bottom and creating a channel, which is 10 feet deep and 80 feet across, downstream of 91st Avenue," Fitzgerald said.

Fitzgerald also said that $1.2 million was spent on a levee from 113th Avenue to El Mirage Road in the Holly Acres area and that it "pretty well kept the river within the river."

Most of the damage occurred in Holly Acres, west of Phoenix; near Winslow, where a levee broke; near Camp Verde because of the high Verde River flows; or in Winkelman where the Gila River rampaged.

But the losses were much less than in the floods of October 1983 or February 1980.

The 1983 flood, which was caused by up to 10 inches of rain during a two-day period, inundated much of the state. It resulted in 14 deaths and 975 injuries, left 1,100 homeless, and caused more than $220 million in damage. Most of the damage, almost $100 million worth, was to agriculture.

The flood of 1980 poured the largest amount of water in recorded history — more than 175,000 cfs — down the Salt River, virtually cutting the Valley in two. At one point, only two bridges crossing the river, at Central Avenue in Phoenix and Mill Avenue in Tempe, were left open. It also caused more than $110 million in damage to property, roads and dams.

So is all this rainfall and flooding creating a new climate here? Asked whether Arizona's desert characteristics are changing, Phillips laughed and said, "Nobody sees wild banana trees growing yet, but we are starting to look."

—OVER

**AFTER THE FLOOD /** Garbage left along the Salt River attests to the power of the floods early this month. Bushes and trees (clockwise from near right) are littered with garbage, and an old tire stands nearby at 107th Avenue. Near that spot, a sign warned about the quality of the water long before flooding. An empty steel drum washed into the mud in the bed of the Salt apparently attracted an animal. At 35th Avenue, an old shoe, a glass flask, chunks of polystyrene and other garbage have washed up.

Photos by Michael Ging/The Arizona Republic

# Controversy again left by state floods

PHOENIX GAZETTE
JAN. 12, 1993

# Dumping ground of excuses

## No one wants blame for mess at landfill

By David Hoye
THE PHOENIX GAZETTE

Fights have erupted over the flood-damaged Tri-City Landfill.

Days after high water tore into the Indian-owned facility, government agencies, environmentalists and the Salt River Pima-Maricopa Indian Community are pointing fingers at each other, trying to assign blame.

Meanwhile, the landfill continues to erode, filling the Salt River with tons of rotting garbage and prompting a debate over public health risks.

State officials said 55,000 cubic yards of trash — about 3,000 garbage truckloads — has fallen into the river since late Friday, a figure that could double before the rains stop and the water subsides.

"This is ridiculous," said Steve Brittle, spokesman for the environmental group Don't Waste Arizona.

"This is another example of government agencies that are supposed to be protecting our environment but aren't doing it."

Brittle's group planned to file a lawsuit today in U.S. District Court seeking an immediate injunction closing the trouble-plagued landfill, which straddles the river north of Mesa near McDowell Road and the Beeline Highway.

The lawsuit was to demand that the Indians, as well as the cities of Mesa,

See ■LANDFILL, Page A2

## ■ LANDFILL

From A1

Scottsdale and Tempe — which have used the facility — remove the portion of the landfill within the river's flood plain.

"We tried to work with them," Brittle said about the Indians and their municipal customers. "They kept hemming and hawing and saying this wouldn't happen.

"Well, now we're taking the matter into our own hands. No one else is doing anything about it."

Indian community spokeswoman Janet Johnson had no comment on the lawsuit.

But she said the community was reviewing a plan to stabilize the 400-acre landfill and see to its closure by a federally imposed deadline at the end of October.

She said the plan already would be in effect were it not for the U.S. Army Corps of Engineers.

"We hired a consultant to do the plan, and gave it to the Army Corps of Engineers to review," Johnson said. "If the plan had been approved during the dry season, the impact wouldn't be as it is today."

Joe Dixon, spokesman for the corps' Phoenix office, disagreed.

"How can I put this delicately?" he said. "I don't believe the ball was in our court."

Ed Fox, director of the state Department of Environmental Quality, also has assigned blame and threatened legal action.

In a terse letter to government officials Thursday, Fox expressed his frustration that the Indians lack a plan to fix the landfill and that the corps and U.S. Environmental Protection Agency have failed to enforce their regulations.

"This environmental threat is at least 10 years old, and further delay cannot be accepted," he wrote. "I am obligated . . . to explore the state's legal options."

DEQ spokesman John Godec said Fox wants the Indians and the cities to pay for cleaning up the landfill and the river, and he wants federal agencies to pursue apparent violations of the Clean Water Act.

"There is certainly a violation of the Clean Water Act, by allowing trash to be released from the landfill," Godec said. "Last year the community kept saying, 'It's not our garbage.' Well, now that argument is moot."

Brittle, who helped lobby against the scrapped ENSCO hazardous waste incinerator planned southwest of Phoenix, said DEQ is as much to blame as the Indians and the cities.

"DEQ has to approve where cities dump their garbage," he said. "They could have told the cities to stop dumping their trash there a long time ago."

Dixon said it's time to stop spreading blame.

"We're trying to come at this with a spirit of good faith," he said. "The fact is it rained, the problem wasn't fixed and now we're seeing the results.

"The damage has been done. We need to get beyond that. There's been enough finger-pointing going on," he said. "We need to get it done."

Meanwhile, health officials and others seem at odds over the potential threat to the public from the garbage in the river.

Norm Petersen, chief of risk assessment and investigation for the state Department of Health Services, said the large amount of water flowing down the Salt should dilute most contaminants beyond the point of danger.

Petersen said previous landfill washouts have been studied, and no evidence has been found that the garbage caused lasting problems. Most contaminants in the river, he added, come from agricultural runoff.

"Landfills are not supposed to wash down rivers. They're supposed to be put in places where they aren't affected by water," he said. "But I have no evidence that it will cause any long-term harm."

But Jim Lemmon, an environmental consultant and lobbyist for the Arizona Public Health Association, disagreed.

He said garbage rotting in the riverbed could become septic, is likely to increase breeding of flies, mosquitos and rodents and likely will increase the contamination of underground aquifers.

"It's garbage. It has filth on it," he said. "It will cause problems when the water recedes. It will be a mess to clean up the river."

Michael Chow / THE PHOENIX GAZETTE

**Officials of various agencies are arguing about who is responsible for the garbage ripped from the Tri-City Landfill and left along the Salt River, like this trash piled along the riverbed at Hayden Road.**

## Street closures

**These streets were closed Friday and are likely to remain closed over the weekend:**

**PHOENIX**

Beardsley Road — Seventh Street to Seventh Avenue
Deer Valley Road east of Seventh Street
Union Hills Drive — Seventh Street to Seventh Avenue
Union Hills Drive west of Central Avenue.
Washington Street — Second to Fourth streets
Seventh Avenue — Union Hills Drive to Bell Road
Seventh Avenue at Grovers Avenue
27th Avenue at Happy Valley Road
29th Avenue at Pinnacle Peak Road
35th Avenue at Pinnacle Peak Road
35th Avenue at Deer Valley Road
35th Avenue — Lower Buckeye to Broadway roads
48th Avenue — Tonto Lane to Oraibi Drive
91st Avenue at Salt River

**WEST VALLEY**

Arizona 85 south of Buckeye

**EAST VALLEY**

Gilbert Road at the Salt River

**GLENDALE**

54th Avenue north of Union Hills Drive
57th Avenue north of Union Hills Drive
67th Avenue north of Bell Road
83rd Avenue north of Union Hills Drive

**MARICOPA COUNTY**

Third Avenue north of Circle Mountain Road
19th Avenue — Joy Ranch Road to Desert Hills Drive
35th Avenue — Baseline Road to Southern Avenue
36th Avenue at Gila River
67th Avenue at Salt River
91st Avenue at Salt River
99th Avenue at Union Hills Drive
107th Avenue at Hatfield and Union Hills
115th Avenue at Gila River
211th Avenue south of Grand Avenue
355th Avenue at Indian School Road
Seventh Street at Carefree Highway and north of Carefree Highway
Airport Road at Gila River
Bartlett Dam Road east of Cave Creek Road
Carefree Highway at Cave Creek Wash
Baseline Road — 331st Avenue to Johnson Road
Cave Creek Road north of Bartlett Road turnoff
Cotton Lane at Litchfield Road
Crismon Road north of Broadway Road
Deer Valley Road — 75th to 83rd avenues
Desert Hills Road at 19th Avenue
El Mirage Road and Fornes Road at Gila River
Gilbert Road at Salt River and between Beeline Highway and Thomas Road
Kelley Road at New River and Interstate 17 frontage road
Lake Pleasant Road south of Lake Access Road
Lone Mountain at East 5000 block
Lower Buckeye Road at Agua Fria River
McKellips Road at Salt River
McKellips Road at Alma School Road
New River Road at Circle Mountain
New River Road north of Lake Pleasant Road
New River Road east of Interstate 17
New River Road south of Fig Springs Road
New River Road at Interstate 17 exit for Circle Mountain Road
Old Stage Road at New River Wash
Patton Road at 193rd Avenue
Patton Road at Hassayampa River
Patton Road west of U.S. 60
Pierpoint Road at Gila River
R.H. Johnson Boulevard at Allepo
Reems Road — Northern Avenue to Cactus Road
Rincon Road in Wickenburg at U.S. 89
Southern Avenue west of Miller Road
Arizona 74 — 99th Avenue to Interstate 17
University Drive east of Ellsworth Road

**SCOTTSDALE**

Pima Road north of Lone Mountain Road
At Indian Bend Wash — Indian Bend Road, Starlight Way, Medlock Drive, Osborn Road, Jackrabbit Road, Roosevelt Street and Murray Lane.

Tom Tingle / THE PHOENIX GAZETTE

**Earthmovers and trucks place boulders near the Salt River's edge to buffer the Tri-City Landfill.**

# Landfill's contents may flow down Salt

## Rushing water strips layer of embankment

**By David Hoye**
THE PHOENIX GAZETTE

Floodwaters breached a portion of the Tri-City Landfill near Mesa late Friday, and officials feared a major portion of the Indian-operated dump could wash down the Salt River this weekend.

Craig Zentgraf, an engineer with the Arizona Department of Environmental Quality, said he watched as rushing water eroded about 100 feet of embankment around the landfill and exposed a layer of construction debris.

He estimated there is 150 to 200 feet of soil and rock standing between the floodwaters and the main portion of the landfill, which contains layers of commercial and residential garbage from Mesa, Scottsdale and Tempe.

"It might survive this release, but if we get more rain tomorrow, the next release will do it," he said.

This is the second consecutive year the landfill operated by the Salt River Pima-Maricopa Indian Community has been blamed for sending garbage and debris down the Salt River.

Both incidents followed major storms that forced the Salt River Project to release water from Granite Reef Dam into the normally dry riverbed.

Flows in the river were expected to reach near-record levels today.

Ed Fox, director of the environmental department, on Friday met with Gov. Fife Symington, and representatives from the Indian community and the cities that use the landfill.

In a letter to those parties Thursday, Fox said that the state has tried in vain to resolve the landfill problem, and that he feels "obligated at this time to explore the state's legal options."

Department spokesman John Godec said that after last year's flooding, the Indian community, the cities and the U.S. Army Corps of Engineers agreed to draft a plan to shore up the landfill and prepare it for closure by October.

The plan was supposed to be completed by August, Godec said, "but the U.S. Environmental Protection Agency and this agency are not aware of it having ever been completed."

Tribal leaders were planning a meeting this morning to discuss the Salt River water releases.

Janet Johnson, a spokeswoman for tribal President Ivan Makil, said the governor, during last January's rains, offered to help the tribe with $300,000, but the tribe never received the money.

Makil said the tribe shored up the landfill with a $400,000 renovation.

*Includes information from reporter Betty Reid.*

PHOENIX GAZETTE
JAN 9, 1993

# Earlier floods created grief for motorists, homeowners

**By Victor Dricks**
THE PHOENIX GAZETTE

Since 1978, three massive floods have soaked the Valley, causing $177 million in damage to homes and businesses, washing out bridges, and leaving thousands of residents temporarily homeless.

Although the Valley gets an average of only 7 inches of rain annually, events of the past week demonstrate it is not immune to the caprices of nature.

The Valley is a drainage for 50,000 square miles. When it rains heavily, we get runoff from most of the state and parts of New Mexico.

The "granddaddy of all floods" — the most severe in Maricopa County on record — occurred in 1891, sending 300,000 cubic feet per second of water roaring down the Salt River. It prompted local farmers to pool their resources and form a flood control district. Within 10 years, they started damming the Salt River.

Those efforts did little to protect the Valley from the fury unleashed by Mother Nature three times over the past 15 years. The speed and volume of storm runoff take many people by surprise here, said Susan Fitzgerald, a spokeswoman for the Maricopa County Flood Control District.

■ In February and March of 1978, floodwaters along the Salt River washed out an Interstate 17 bridge of the Agua Fria River and killed six people. The only city bridge that remained open during the flooding was the Central Avenue Bridge, which sustained heavy damage.

■ In December 1978, another storm caused extensive damage along the Salt River, including losses to sand and gravel operations along the banks of the river.

The two storms caused an estimated $113 million damage, according to the Arizona Department of Transportation.

■ In 1980, a storm so severe it might be expected to occur only once every 100 years caused $63.7 million damage in the Valley, including income loss and emergency services. The storm forced hundreds of people from their homes and left three dead.

Salt River Project officials were forced to release water into the Salt River to protect Stewart Mountain Dam from collapsing after the Army Corps of Engineers found sections of the concrete were "unbonding." These releases caused massive traffic snarls and prompted a review of flood-control programs.

THE PHOENIX GAZETTE Monday, January 11, 1993

# Flood-control measures work 'fantastically' in first major test

By Brad Patten
THE PHOENIX GAZETTE

Give thanks for the New Waddell Dam.

Bow your head to the Arizona Canal Diversion Channel.

Include in your prayers a word about channelization, levees, flood-control dams, automated rain monitors and reinforced bridges.

Without them, you might not be reading the newspaper. Instead, you could be shoveling mud from your living room or be stuck in traffic.

In the past decade, flood-control officials from city, county, state and federal agencies have spent hundreds of millions of dollars for ways to channel billions of gallons of water around the Valley during storms.

"It's worked fantastically, just as it had been designed," Stanley Smith, acting chief engineer and general manager for the county's flood-control district, said Sunday evening.

Last week's heavy rain — which pushed more than 100 billion gallons of water through the Verde River into the Salt River — provided the first major test of a variety of measures implemented in the wake of the floods that ravaged the Valley in 1978, 1979 and 1980.

Smith said most of the improvements in the past 15 years have been designed to manage

See ■DAMS, Page A7

## ■ DAMS

From A1

the floods from winter weather and huge runoffs north of the Valley. He said the flood-control district is still working to relieve pockets of flooding from torrential rains that usually occur in summer.

### Where the flow goes

The measures were designed to control the huge amount of water that travels through the Valley via a dozen rivers and washes when rain and snow drench higher elevations.

To understand the improvements, you need to understand the Valley's water routes, which are not widely understood since they are usually dry.

The easiest way to visualize the system is to remember that water flowing into the Valley is on its way to the Colorado River at Yuma via the Gila River.

The biggest feeder to the Gila is the Salt River, the normally dry riverbed that winds from northeast to southwest through the center of the Valley. It joins the Gila on the west side.

Two north-south rivers meet the Gila and Salt. The Verde River feeds into the Salt northeast of Scottsdale, and the Agua Fria River meets the Gila on the southwestern edge of town.

Water flowing through the Salt in the eastern and central parts of the Valley is controlled by the Salt River Project.

### Dams hold it back

Six SRP dams on the Verde and Salt rivers catch and store water coming from the 13,000-square-mile watershed in the central portion of the state.

Four of the dams are on the Salt northeast of the Valley, beginning with Roosevelt and ending with Stewart Mountain. Two dams — Horseshoe and Bartlett — contain water on the Verde.

As the reservoirs behind the dams fill, SRP must release water into the Salt.

The huge volumes raging through the Salt — up to 124,000 cubic feet per second Friday and 63,000 cfs early today — were the result of heavy rains in the Prescott, Verde Valley and Sedona areas. Runoff from those areas flows to Horseshoe Lake, which has a capacity of 43 billion gallons, and to Bartlett Lake, which can hold 58 billion gallons.

"If the Verde lakes had been empty, we would have already filled those lakes up and would have been releasing more water," said Dan Phillips, supervisor of water resource operations at SRP.

At one point, a record of about 114,000 cfs was being released at Bartlett Dam. The maximum release at Roosevelt was about 20,000 cfs, Phillips said.

### Better control

Roosevelt was 30 percent below capacity before the storm to accommodate construction. But Phillips said the work had little impact on the amount water in the Salt since most of the volume came from Verde dams.

SRP is able to keep more precise control of releases because of improvements in the past decade.

One, a series of rain and stream gauges, sends rainfall amounts and stream speeds to SRP computers every 15 minutes via a satellite system.

That helps SRP hydrologists determine sooner and more precisely how much water they need to release, Phillips said.

Fortunately, the Salt River is able to accommodate more volume, too, thanks to efforts over the past 10 years.

Some sections of the riverbed were widened. Others had levees built on one side or another. Parts were dug deeper by sand and gravel companies. Still others were "channeled" — where engineers improve flow.

"What we have done is controlled the river through designed levees and channels," said Dick Perreault, chief of planning for the flood control district.

### Better bridges

It is also easier to get across the Salt.

After the flood in 1980, only two bridges across the Salt were left intact.

"Traffic was just a nightmare," Perreault said. "It took two or three hours just to cross the river."

Since then, more bridges were built and old ones were reinforced to withstand flows of 180,000 to 200,000 cfs.

"We've got basically new bridges all along the river," said Tony de la Cruza, street maintenance superintendent for Phoenix. "They were all reconstructed and reinforced."

Only one bridge in Phoenix — the 35th Avenue bridge — was closed Friday. There were no major traffic jams.

In the northern and northwestern parts of the Valley, residents can give thanks for canals and relatively new dams that divert water into the Agua Fria River.

The New Waddell Dam in the northwest Valley was finished less than three months ago.

### Lake filling quickly

Good thing, too, because "the old dam is 5 feet under water right now," said Chuck Morfoot, spokesman for the federal Bureau of Reclamation, which runs the dam.

The heavy rain is helping accelerate the expansion of Lake Pleasant behind the dam. The lake will be four times its original size when filling is complete early next year.

Because the lake is being filled, no water was released into the Agua Fria.

"There probably would have been some flooding on the west side of town if we had been releasing water," Morfoot said.

In addition to the New Waddell, flooding in the central and west side of the Valley has been avoided by several flood-control dams and the Arizona Canal Diversion Channel.

The channel is the 17-mile ditch that runs alongside the Arizona Canal from 40th Street and Camelback Road to 75th Avenue and Bell Road, where it runs into the Skunk Creek Wash and eventually the Agua Fria.

A short section between 32nd Street and 40th Street is under construction. But the 16 completed miles are working.

The channel diverts water from several urban washes. It also captures large amounts of water from storm drains in Phoenix.

Smith credits the absence of flooding in central and west Phoenix to the channel and the 13-year-old Cave Buttes Dam. Cave Buttes has a capacity of about 15 billion gallons and was less than one-third full at its peak Friday.

Other dams relieving the strain were the New River Dam, built in 1985, Adobe Dam, built in 1980, and Dreamy Draw Dam, built in 1974.

Even one of the most flood-prone areas of the Valley, the Holly Acres area near the Salt River at 115th Avenue, survived thanks to a 7-year-old levee, Smith said.

Friday, Jan. 8, 1993 Daily News-Sun, Sun City, Ariz.

Mollie J. Hoppes/Daily News-Sun

Heavy rains forced the closure of Union Hills Drive between 101 Loop and 83rd Avenue Thursday.

# Rain floods NW Valley roadways

By J.J. McCORMACK
Daily News-Sun staff

1993 is not shaping up to be a drought year in Arizona.

Steady rains have drenched the state since Wednesday and although the clouds broke for a time this morning, more rain is forecast over the weekend.

The National Weather Service this morning issued a flash flood warning for much of central Arizona. The warning is in effect until 9 p.m.

Persistent rain is causing significant increases in stream flows and the increases are expected to continue through tonight, said NWS meteorologist David Carpenter.

Local Sun City weather watcher Dick Jarsensky this morning said a rain gauge in his back yard measured 1.1 inches overnight. Since Wednesday, 2.3 inches of rain have fallen in Sun City, he said.

Arizona's three-day drenching prompted Salt River Project officials this morning to increase releases at Granite Reef Dam northeast of Phoenix to the highest level in more than a decade. Releases were set at 110,000 cubic feet per second, the largest flow since 1980 when 180,000 cubic feet of water per second flowed through the dam, said Teri Morris, an SRP spokeswoman.

The dam releases affect roads and bridges across the Salt River in the East Valley, but they do not

See Forecasters predict, A6

Rick D'Elia/Daily News-Sun

Don Rhoten of Paradise Resort in Peoria walks his three dogs through a field west of Sun City Thursday.

– OVER

# Forecasters predict rain for weekend

—From A1

directly affect the West Valley.

Locally, a number of area streets were closed as of late this morning because of high water, including Carefree Highway from 99th Avenue east to Interstate 17.

At nearby Lake Pleasant, boat ramps were closed this morning because of rising water levels. The ramps are expected to open when the rain subsides.

Local law enforcement agencies reported minimal problems this morning, but warned that the street flooding could worsen if the rain persists.

"There are a few spots that are normally flooded, but we haven't had to close anything this morning," said Norm Zadnoff, Sun City West Posse commander. "There isn't anything you can't drive through using caution."

Some area residents apparently are taking precautions against more severe flooding. A fire department employee in Peoria said demand prompted a second delivery of sand at the city's three fire stations Wednesday. Sand and sand bags also are available at Glendale fire stations.

The list of road closures in Peoria and Glendale because of flooding included six crossings by late this morning. They are:

- Deer Valley Road between 75th and 83rd avenues.
- 54th Avenue north of Union Hills Drive in Glendale.
- 57th Avenue north of Union Hills Drive in Glendale.
- 67th Avenue just north of Bell Road at Skunk Creek.
- 83rd Avenue and Union Hills Drive.
- 83rd Avenue northbound from Bell Road and southbound from Union Hills Drive.

TEMPE TRIBUNE

JAN. 18, 1993

# Strained dams threaten record water releases

**By Kathy Nixon and Carolyn Huffman**
Tribune writers

Valley emergency crews are bracing for what could be record water releases in the next two days from reservoirs supplying the Valley.

Continued rain Sunday drove Salt River Project officials to increase water flows from dams and warn residents in low-lying areas of flood danger.

What has become the wettest January in nearly a century is producing some of the highest water levels ever in the Salt River Project watershed.

SRP officials warned Valley cities and residents that it may have to release as much as 200,000 cubic feet of water per second by Tuesday night from its Granite Reef Diversion Dam 32 miles east of Phoenix.

Such a release would far eclipse the record at Granite Reef of 178,000 cfs in 1980, which compounded statewide flooding that killed four people.

Should SRP be forced to make record releases Tuesday, bridges spanning the Salt would face the largest currents in their history.

The Mill Avenue Bridge, whose nearly-completed sister span was damaged by flows reaching 124,000 cfs Jan. 8, will withstand the threatened releases, said Tempe officials.

## Storm

From page A1

The Mill bridge is designed to withstand flows as high as 250,000 cfs, said Tempe spokeswoman Nachi Marquez.

An incoming storm due to hit the state early this morning could spill up to three inches onto the already bloated watershed.

The December and January storms have dumped more than 1.3 million acre-feet of water in the Salt River Project system, said Darrell Jordan, SRP's manager of water resources management.

"This exceeds the amount of water by nearly 50 percent that SRP delivers in one year to the entire Valley," he said.

An acre foot of water equals 325,850 gallons or enough to supply a family of four for a year.

Salt River Project announced that water flows at Granite Reef were expected to reach 100,000 cfs by late Sunday.

Other troubling news came from Roosevelt Lake 80 miles east of Phoenix where water threatened to spill over a temporary dam there.

The so-called cofferdam was built so construction crews could expand and improve Roosevelt Dam.

"At this point, we anticipate that any flow over the cofferdam would be minimal, and the cofferdam itself should not be damaged," Jordan said. A 1-foot overflow would increase water releases from Roosevelt Lake by about 2 percent (400 cfs), he explained. A 2-foot overtopping could increase lake releases by about 5 percent (less than 1,000 cfs).

Though the bad weather continues, Arizona is due for some relief, said National Weather Service meteorologist David Carpenter.

"This is hopefully the last in a series. A high pressure ridge coming in should last at least a few days and give us a very welcome break."

Sunday afternoon, the weather service put the entire state under a flood and flash flood warning through 9 a.m. today.

Today's storm, like the past several, arrives from the Pacific Ocean but could bring colder temperatures than its predecessors.

Sunday's storm kept the state unusually warm — at Phoenix Sky Harbor International Airport, it hit 69 degrees despite a mostly cloudy day. "Just a little bit of sunshine is all it took to zap us up to that," Carpenter said.

The incoming cold could blanket higher country with 5 to 7 inches of snow, bringing the snow level down near 6,000 feet.

In the Valley, sandbags and sand will be available to county residents through the Maricopa County Department of Transportation and the county Flood Control District, said Warren Leek of the Maricopa County Department of Emergency Management.

Mary Ulch, a spokesperson for the Central Arizona Chapter of the American Red Cross, said the organization is on alert to assist flood victims. The agency operated an emergency shelter for county residents in the Holly Acres and Cashion areas near 115th Avenue last week. That area is likely to be hit with additional floods if the rain continues.

"We think that might be the area hit again. If so, we will reopen a shelter for them," Ulch said. "Right now, we are just waiting to see what will happen. We are watching the situation very closely. We will be ready to provide assistance to whoever needs it."

Authorities continued Sunday to search for a woman who was swept away by the Gila about 5:30 p.m. Saturday when the truck she was riding in was washed off a closed stretch of Highway 587 near Sacaton.

The truck's other two occupants, both unidentified men, were fished from the river by a Department of Public Safety helicopter rescue team.

The Gila River Indian Community Emergency Operation Center asked the DPS and the state Department of Transportation to put more barricades on the highway. The road, which intersects with Interstate 10, has been closed since Jan. 10 due to flooding.

## Record releases

■ 124,000 cfs — The amount Salt River Project was releasing Jan. 8 when the raging torrents tore through the Tri-City Landfill, knocked down the Mill Avenue Bridge and caused downstream flooding in low-lying areas. SRP officials expect releases to reach this amount again today.

■ 178,000 cfs — The record for water releases, reached during the February 1980 floods after nine straight days of rain. The flooding claimed four lives and inundated virtually every bridge along the Salt River, leaving the old Mill Avenue Bridge as the only artery between the East Valley and Phoenix.

■ 200,000 cfs — The amount projected by Tuesday if today's storm brings the anticipated 3 inches of rain on the Salt River Project watershed. This amount of water could imperil a number of bridges along the Salt and create widespread downstream flooding.

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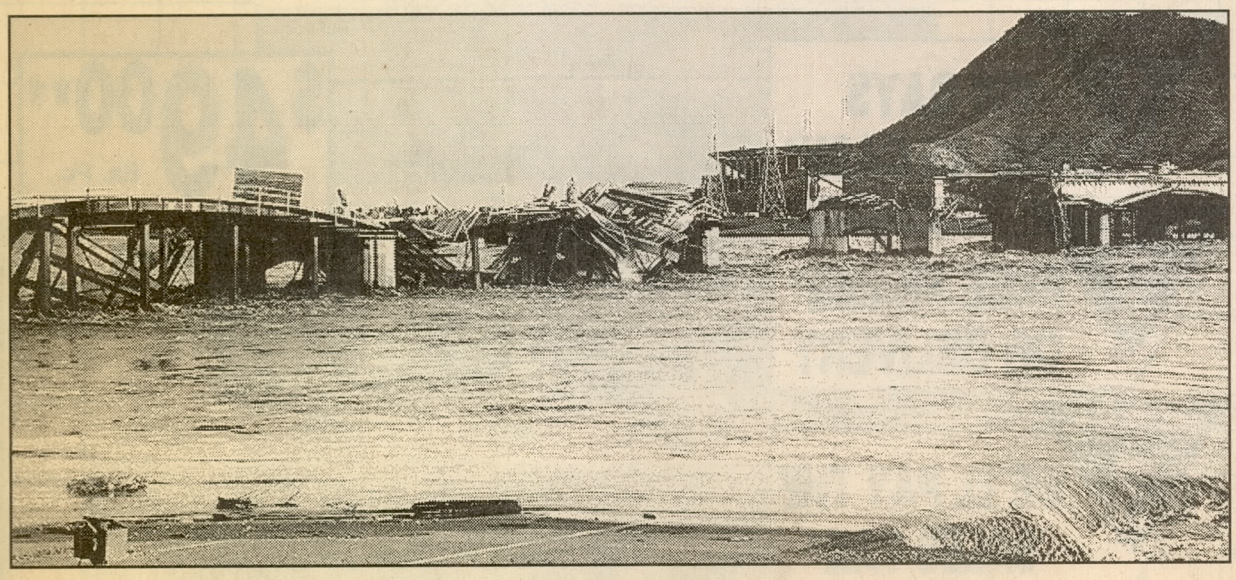
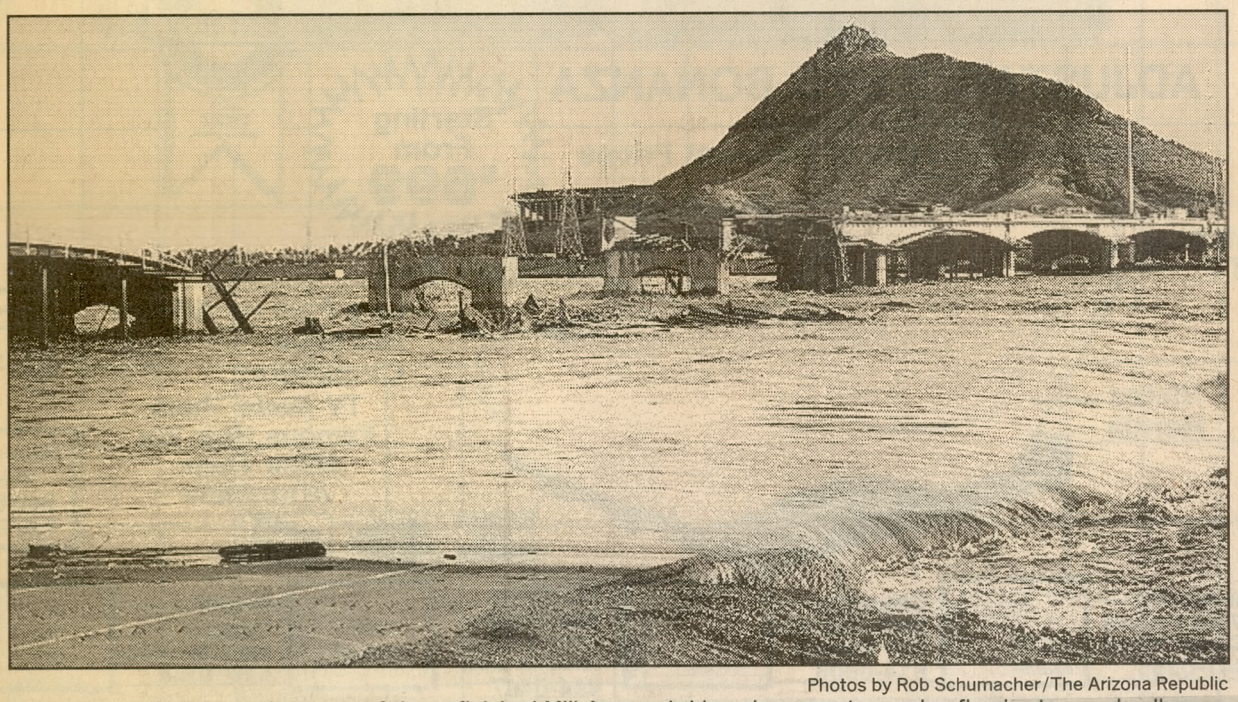
■ 1 cubic foot of water — 7.5 gallons.
■ 200,000 cubic feet per second:
— 1,496,200 gallons every second.
— Enough to fill 60 swimming pools every second.
— Enough to fill Sun Devil Stadium every 85 seconds.
— A year's supply for 18 every second.
— A year's supply for the entire Valley every 2.5 days.





Photos by Rob Schumacher/The Arizona Republic

At 5:10 p.m. Friday, another span of the unfinished Mill Avenue bridge gives way to surging floodwaters and collapses. The Salt River on Friday knocked out several temporary plywood spans supported by dozens of vertical steel beams.

# Unfinished spans prove no match for fury of Salt

## 6 other bridges closed by torrent

**By Pamela Manson and Paul Brinkley-Rogers**
The Arizona Republic

Rushing waters closed six bridges and all unbridged washes across the Salt River on Friday, said Sgt. Jay Ellison of the Maricopa County Sheriff's Department.

Closed were bridges at 35th, 51st, 67th, and 91st avenues, as well as at McKellips and Gilbert roads, he said.

Debris-laden water pounded at the unfinished Mill Avenue bridge throughout the day. The concrete arches in the finished section at the southern end held, but the flood knocked out several temporary plywood spans supported by dozens of vertical steel beams.

The old, two-lane Mill Avenue bridge was not damaged and was open to bumper-to-bumper traffic.

About 100 spectators gathered at each end of the bridge Friday afternoon to watch the Salt River rip the unfinished section apart. Many carried video cameras.

"This is our date," Bridget O'Rourke, a 17-year-old Tempe resident, said as she joined the crowd watching the scene with fascination.

"Hey, it's better than the movies. And it's free, too," said her boyfriend Roger Knauss, 18.

A group of construction workers speculated about whether the flood would rip out the rest of the uncompleted part of the bridge.

"Water is weird," said Rudy Hernandez, 28. "You got concrete. You got steel. You hit that with your fist and you will hurt.

"But that river. It is just water, but it is cutting through that bridge like a knife."

Downriver, raging waters at the 35th Avenue bridge attracted a handful of onlookers.

The bridge was closed at 2 p.m. after water washed over its southern access, but not before it nearly claimed the lives of two people.

Phoenix police Sgt. William Johnston said the people were stranded on an island surrounded by water and had to be rescued by police helicopter.

Officials said it appeared that the bridge, rebuilt after 1980 floods, would survive Friday's water releases.

"I don't think it is going down the river," said Tom LaMarche, a hydrologist for the Maricopa County Flood Control Division.

A nearby business wasn't so lucky. By 4 p.m., the river had swamped the American Truck Salvage Yard at 4141 S. 35th Ave. Several junked vehicles were nearly submerged, and a mobile home was about halfway under water.

Debris from the salvage yard, including several 50-gallon drums, floated downstream. At one point, a large white propane tank resembling a World War II U-boat was carried away.

Central Avenue bridge in Phoenix remained open. Dozens of people stood beside the heaving river or leaned over the bridge's railing to watch the rushing water.

Police officers stopped at squatters camps scattered along the riverbank, warning the residents to leave.

Construction of the new $6.6 million Mill Avenue bridge, which is east of the existing bridge, began a year ago. It had been scheduled to open in July and carry northbound traffic.

Tempe officials had no estimate Friday on the amount of damage but said the contractor's insurance was expected to pay for the damage.

Jim Jones, director of public works, said that the new bridge will withstand 250,000 cubic feet per second of water when completed. The river was running at 80,000 cfs when pieces of it began collapsing. The flow was expected to reach 150,000 cfs by Friday night.

The temporary spans, each about 150 feet long, could withstand only 35,000 cfs because cement had not yet been poured, Tempe officials said.

Contributing to this article were Bob Golfen and Hal Mattern of *The Arizona Republic.*

# Woman clings to tree in creek

**By Mark Shaffer**
The Arizona Republic

As the churning water in Dry Beaver Creek rose to within 6 inches of her feet, Amy Janes said, adrenaline kept her hands clamped to the little tree in the creek bed. Janes, 18, clung to the tree for seven hours late Thursday before being rescued.

Janes, a Northern Arizona University student, had gone on a canoe trip shortly after 5 p.m. Thursday with her father, Earl Janes, a Camp Verde post-office employee, on the creek south of Sedona.

But a wave flipped their canoe, and Amy Janes grabbed a tree as she floated past. Earl Janes swam ashore and drove back to Camp Verde for help.

Then, the serious flooding came downstream. Amy Janes said the water rose a foot within an hour as she clung to the cottonwood tree, which measured only 6 inches in diameter.

"I figured at first that I would get out pretty quick," she said. "But then, I really got worried and started praying really hard when I saw that wasn't going to happen."

Rescue personnel from Camp Verde arrived about an hour later but didn't have the equipment to pull her to safety, she recalled.

White-water specialists from the Prescott Fire Department finally were able to pull her onto a boat at 12:40 a.m. Friday, Janes said. She said she was treated for a mild case of hypothermia.

ARIZONA REPUBLIC
1-9-93

# Flood fears ease

Mike Englund of Phoenix loads sandbags into his pickup at 129th and Southern avenues Monday, after getting word from the Sheriff's Department that flooding from irrigation ditches was expected.

Tom Tingle / THE PHOENIX GAZETTE

# Break in storm cuts water releases

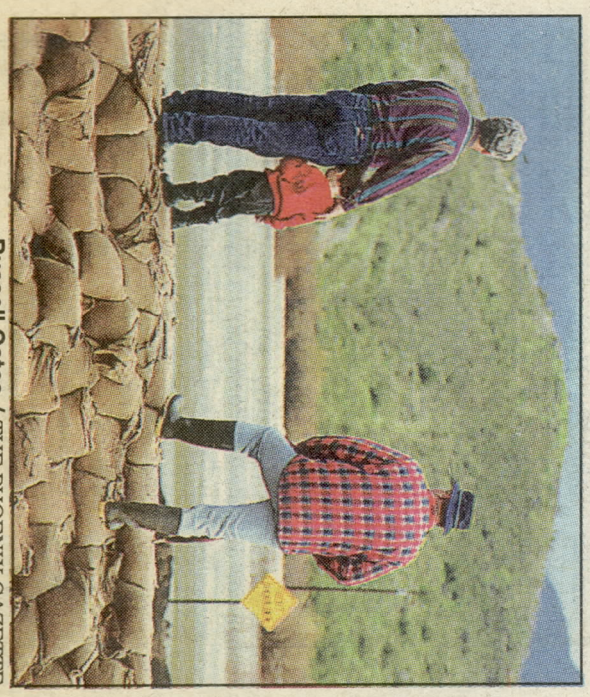
By Brad Patten and Victor Dricks
THE PHOENIX GAZETTE

Heavy snow in the northern and central mountains and a lull between the peak rain showers at lower elevations has reduced fears of heavy flooding along the Salt River in the Valley.

"I think the rain has pretty much come to an end," Bob Berkovitz of the National Weather Service said this morning. "We may get a little rain today from a low pressure system moving through the eastern part of the state, but not much, and there is dry air coming in behind it. It should stay dry through the weekend."

The heavy rains have left two people — a police officer and a Chandler woman — missing along the

See ■FLOODS, Page A12



Russell Gates / THE PHOENIX GAZETTE

Charles Clark, his grandson Mitchell, 4, and Carl Adams wondered Monday if the Gila River would rise above the sandbag dike on its banks. Adams' home is a mile from the river. Flows were expected to rise late today when releases from ungated spillways at Coolidge Dam reached 25,000 cubic feet per second, the Bureau of Reclamation said.



# ■ FLOODS

From A1

rain-swollen Gila River south of the metropolitan area.

The Salt River Project was recording 72,000 cubic feet per second flows into the Salt River at the Granite Reef Diversion Dam 32 miles northeast of downtown Phoenix this morning, less than half the amount predicted.

SRP spokesman John Egan said mountain rainfall was less than feared and that Monday's storm arrived later than forecast, giving hydrologists less water and more time to drain the six SRP reservoirs on the Salt and Verde rivers northeast of Phoenix.

"We are fortunate. We got that extra time," Egan said.

The highest release ever recorded in the Salt was 178,000 cfs, in 1980. Engineers feared that 200,000 cfs the SRP had projected Sunday to reach the Valley today would wash out several of the dozen bridges that cross the Salt in the Valley.

A forecast for heavy snow up north also was welcome news for Valley flood fighters. The National Weather Service issued a heavy snow warning overnight down to the 5,500 foot level for the north and central mountain regions. Warmer temperatures during recent rains had kept the snow level above 8,000 feet.

"Snow up north is good for us . . . because we don't get a lot of runoff into the reservoir system," said Stanley Smith, director of the Maricopa County Flood Control District.

But the snow was producing a mess for travelers in the mountains. The state Department of Public Safety urged travelers to avoid the snow country around Flagstaff and along the Mogollon Rim.

"I am getting a lot of calls on accidents and rollovers," DPS Officer Ann Stuckey said.

Stuckey said heavy traffic from the long holiday weekend combined with heavy snow backed up traffic Sunday night on interstates 17 and 40 near Flagstaff. A favorite route for Valley skiers, state Route 260, was restricted to one-lane at portions between Payson and Heber due to rock slides, Stuckey said.

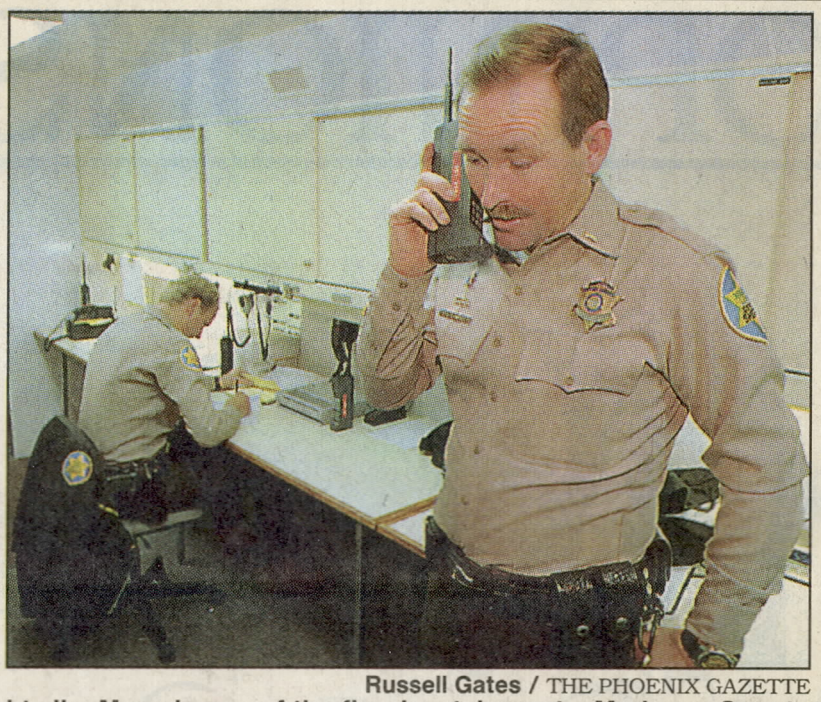
On Monday, Arizonans were reeling from the wettest January on record and several sitings of funnel clouds.

Sgt. Kevin Lewis, a Gila River Indian Reservation police officer, hasn't been heard from since early Sunday, when he went to check on roads crossing the Gila River.

Searchers on Monday found skid marks at a river crossing and downstream debris that could have come from a squad car. Officials were uncertain if Lewis had been swept into the water, Bureau of Indian Affairs spokesman Larry Rummel said. He said this morning that a DPS helicopter might be used in the search today.

Farther west, swift currents prevented divers with the Pinal County Sheriff's Office from retrieving a woman presumed dead in a partially submerged truck in the Gila near state Route 587.

Diane Eckert, 39, of Chandler was crossing a breached bridge Saturday night when the truck carrying her and two companions was swept into the river. Her companions, two unidentified men, were able to escape through windows and were rescued.



Russell Gates / THE PHOENIX GAZETTE

Lt. Jim Mann is one of the flood-watchers at a Maricopa County Sheriff's Office command post trailer set up at 115th and Southern avenues.

Gila River flows were expected to rise late today when releases from the ungated spillways at Coolidge Dam reached 25,000 cfs, the Bureau of Reclamation said.

Flood workers were worried that heavy releases from the dam would combine with high flows in the San Pedro River, which joins the Gila at Winkelman, to cause more flooding in the downstream communities of Kearny, Florence and the Gila River Reservation.

"Right now we are getting prepared, monitoring all these washes, and trying to get a feel for the flows we are going to have downstream," said Teresa Rettenbush, assistant manager for Pinal County.

Pinal and Maricopa County flood-control workers also were watching the Santa Cruz River, which was running fast from heavy rains in southern Arizona. The Santa Cruz and the Gila join the Salt around 100th Avenue, and a levee that protects flood-prone Holly Acres is designed to withstand flows of only 115,000 cfs.

High flows arriving at the same time in all three rivers could produce a flow strong enough to breach the levee, Smith said.

The most severe flooding in the Valley appeared to be in Laveen, where a clogged drainage ditch along Baseline Road near 59th Avenue pushed water into five farmhouses, the Red Cross reported.

Residents were angry that the county had spent money on an expensive flood-control study, instead of cleaning out the ditch.

"Instead of solving a very simple problem, the county government resorts to studies that have no validity," said Ron Schlosser, a resident in the area.

Pea-sized hail pelted marchers celebrating the state's Martin Luther King Jr. holiday downtown Monday and several funnel clouds were sighted in the Phoenix area. One tornado reportedly touched down in the King's Ranch area in Pinal County just east of Apache Junction off Highway 60.

In Patagonia, flooding caused the evacuation of 40 people from a trailer park northeast of the town. A broken sewer line exacerbated problems in the small rural community 30 miles northeast of Nogales.

The San Fransisco River peaked at 15 feet, 7 inches at 2:30 a.m. today, causing flooding in Clifton where 400 people were evacuated to Red Cross facilities.

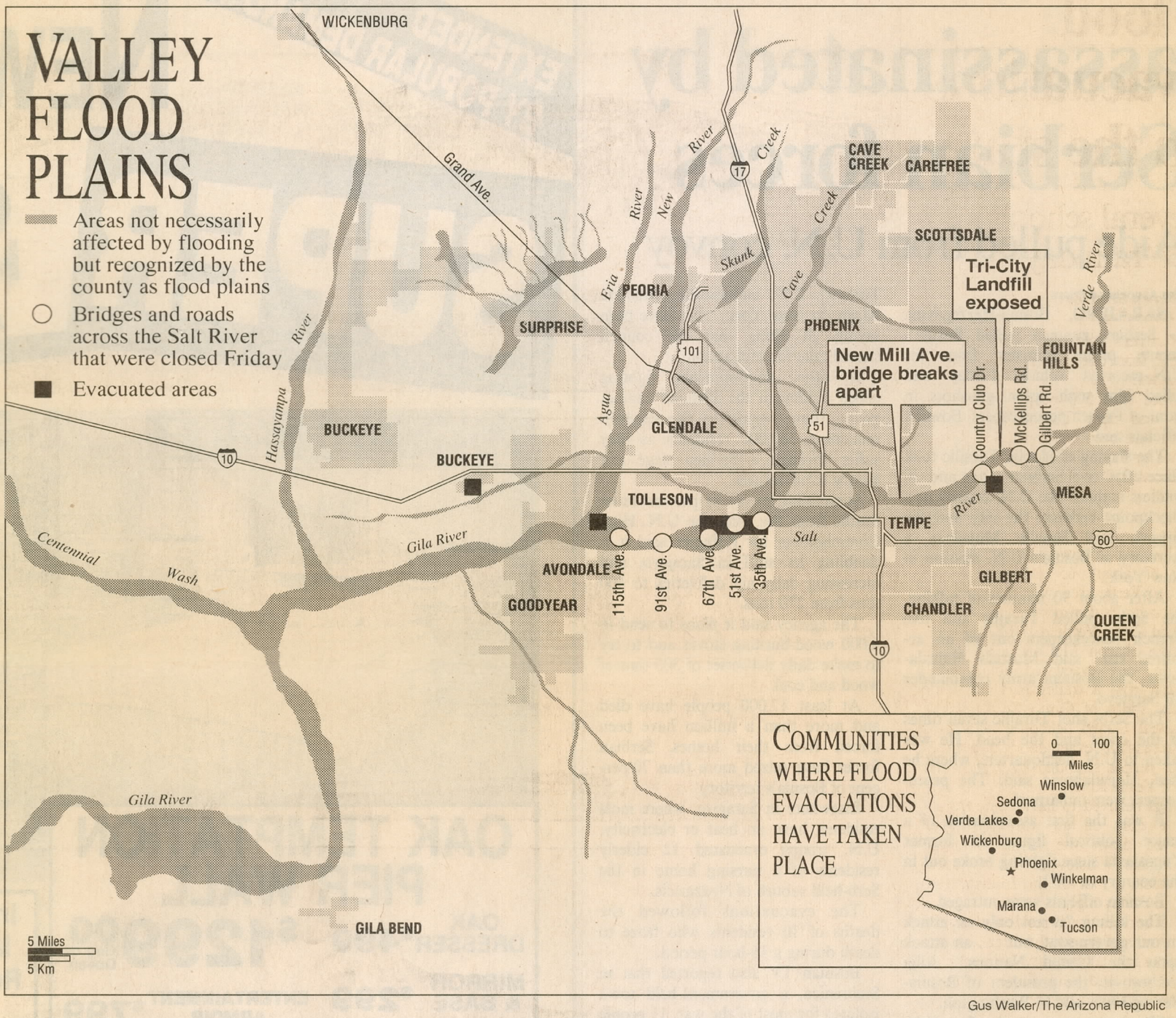
In the community of Chui Chu, on the Papago Indian Reservation, several hundred people were evacuated as a result of overflows of the Santa Cruz River.

The Arizona Republic Saturday, January 9, 1993

# FLOODS OF '93

## VALLEY FLOOD PLAINS

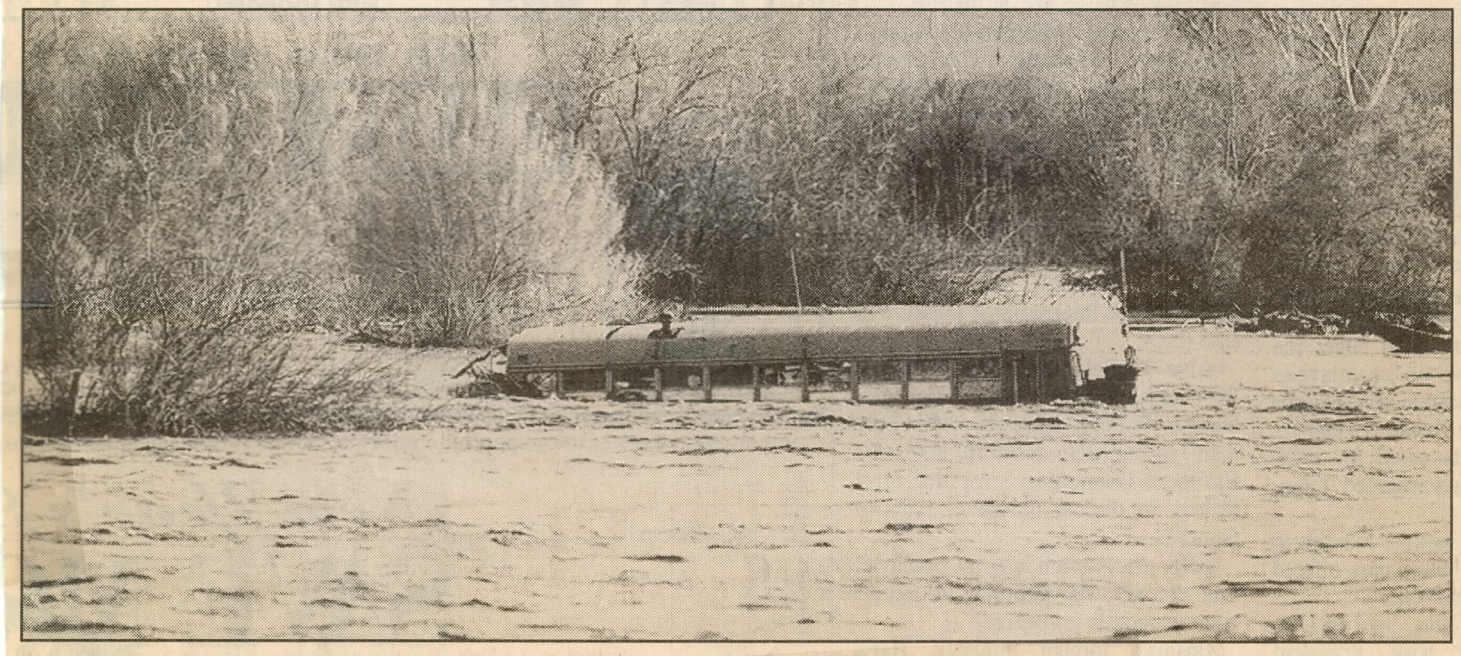
- Areas not necessarily affected by flooding but recognized by the county as flood plains
- ○ Bridges and roads across the Salt River that were closed Friday
- ■ Evacuated areas




### COMMUNITIES WHERE FLOOD EVACUATIONS HAVE TAKEN PLACE




Gus Walker/The Arizona Republic



Christine Keith/The Arizona Republic

Water rises to the top of a bus in the Salt River at 91st Avenue, where about 18 people were living in buses, trailers and campsites. Flooding in the area Friday also threatened a Phoenix waste-water treatment plant.

The Arizona Republic Saturday, January 9, 1993

# Evacuation is the 5th in 15 years for one district

By Judy Nichols
The Arizona Republic

Pete Oliver, 76, stood in the street in front of his now-empty house, clutching a Roi-Tan cigar box filled with cattle receipts, vowing never to return.

The drapes in his front window are tied up to the ceiling with rope. Sandbags are stacked against the front door, a hedge against the rising waters of the Gila and Salt rivers, which converge near 115th Avenue.

That's just east of Oliver's neighborhood, Holly Acres.

"This is the last time," he said, setting his jaw. "Damn right. I should have left after the first time. I'm sorry I ever did come back."

Oliver and his neighbors are well-acquainted with floods. They've had to flee their homes five times now, including "the big one" in 1978.

That time, there was no notice when the rivers overflowed, and most people, including Oliver, lost everything. Since then, they've packed up and left twice in 1980 and again in 1983.

U-Hauls, pickup trucks, horse trailers, tractors, anything that could move or haul, lined the streets of Holly Acres, as people loaded their sofas, washing machines and dogs.

"I was born over here at 91st Avenue and Lower Buckeye," Oliver said, pacing across his driveway.

— See **NEIGHBORHOOD**, *page A10*

# Neighborhood has its 5th evacuation in 15 years

— **NEIGHBORHOOD**, *from page A1*

"I should have known it flooded here. But when I bought the house in 1975, I thought they fixed the river so it wouldn't flood."

Oliver's sons helped him load everything into a moving van so quickly that the magnets were still on the front of the refrigerator. Crocheted afghans cushioned breakables sitting next to bags of dog food.

"I had two cows," he said. "They just took them away."

Across the street, Judy Hill stood in the living room of her log home, her furniture suspended by rope from the log beams.

"We have it down now so we can move out in about three hours," she said.

Once the waters recede, she and her husband, Jerry, hose off the fireplace, refinish the logs and move back in.

"As long as the ropes hold, we're OK," she said.

Next door, the Farmers are loading their couch onto a flatbed truck.

"People ask why we stay," Renee Farmer said. "We have an acre that's all paid for. We have a three-bedroom house, country living and our house payments are $67. We have flood insurance, so when this happens, we just get moving. We just do it."

A few miles away, Venita and Cleo West were moving everything: televisions, important papers, family pictures. They lost their trailer home and everything in it in 1978.

"Now I wonder every time it rains," said Venita, who can see the Salt River from their property on 115th Avenue south of Southern Avenue.

Her daughter, Kathy Trimble, will never forget the unexpected waters in 1978.

"I was 6½ months pregnant," she said. "We were wading through waist-deep water, and I could see all the gophers and snakes floating by. When we went back in the trailer, there was sand and mud as high as the roof in places, and snakes were crawling all over."

The replacement, a double-wide trailer, was pivoted 90 degrees by the flood in 1980.

"We just decided to leave it there," she said.

Nearby, blue-uniformed convicts filled sandbags and stacked them across the blacktop of 115th Avenue, and a bulldozer piled up earth to shore up the line of defense from the rising waters to the height of a dike that is new since the previous flood.

Farther west, near 211th Avenue at the edge of the Gila River, workers at the Heartland Dairy loaded about 800 cows onto trucks.

"The water's getting pretty high," dairyman Mike Rainwater said. "We figured we better move them rather than taking a chance."

Nearby, on Beloat Road, Gene Shelton was angry.

"They could have been releasing 60,000 cubic feet all this week, then there'd be no problem," Shelton said.

"But they try to keep as much water as they can for the farmers."

In Mesa, police evacuated the six mobile homes closest to the rising Salt River at the Hawaiian Family Mobile Home Park.

"In a way, it's very exhilarating, but in a way, it's very scary," Collenne Millien said. She spent all day packing, believing that her 12- by 50-foot trailer would be washed away.

"If you see it floating, have someone call us," said Danny Millien, her husband. "You've got to hang in there, there's no other choice."

Collenne said they have no insurance. They have lived in the trailer on Country Club Drive, north of McKellips Road, for 10 years.

Although the river has risen before, "it's only been about half of this," she said. "This is real. There's no getting around this."

Although authorities evacuated only six mobile homes, Red Cross volunteers Friday afternoon began setting up a shelter for evacuees at a Westwood High School gymnasium about five miles south of the mobile-home park.

Millien's neighbors nervously asked Mesa police whether they would be the next in line for evacuation.

Joseph Duprey criticized state flood-control efforts.

"I can't believe that they don't have more flood control," he said. "It's a joke."

Contributing to this article were Art Thomason, Jim Walsh and Guy Webster of *The Arizona Republic*.

## WHERE TO FIND HELP, SHELTER

- For help and referrals, the Flood Relief Hotline (Spanish operators available):
  In Phoenix, 263-8856.
  Outside Maricopa County, 1-800-352-3792.
- Shelters have been established by the American Red Cross at these sites:
  Westwood High School, 945 W. Eighth St., Mesa.
  Littleton Elementary School, 1252 S. 105th Ave., Cashion.
  The Seventh-day Adventist Church, Wickenburg.

## How water flow is measured

Stick your finger into the Salt River, and in one second, 150,000 cubic feet of water will pass by. But cubic feet per second is an indecipherable measurement for most people.

Because few of us have a cubic foot of milk in the refrigerator, it may be helpful to think in terms of gallons. A cubic foot of water contains 7.5 gallons. So, the flow of the Salt translates to more than 1.12 million gallons a second.

That flow could:

- Fill 50 swimming pools a second.
- Provide the daily water needs of Phoenix in just four minutes.
- Fill Horseshoe and Bartlett lakes in a day.
- Provide the annual water needs of all the Valley cities in less than 3½ days.

THE PHOENIX GAZETTE Saturday, January 16, 1993

# High anxiety forecast

## Flooding may worsen; Roosevelt Dam construction imperiled

By Brad Patten and Pat Flannery
THE PHOENIX GAZETTE

Heavy rain forecast for this weekend could cause a second wave of substantial flooding along the Salt River in the Valley by early next week.

Salt River Project hydrologists also fear the 3 to 5 inches of rain expected in the central mountains could push Roosevelt Lake over a temporary dam protecting construction on one of Roosevelt Dam's spillways. Although the construction project on the 80-year-old dam could be heavily damaged, the dam itself is not in danger, SRP officials said.

"The weather forecasts have been getting worse . . . it is making us nervous," John Keane, executive water policy analyst for SRP, said after flying over the dam Friday.

The National Weather Service issued a flash flood warning through the weekend for the central mountains and western deserts. Most of the state can expect moderate to heavy rain today, meteorologist Bob Survick said Friday night.

Heavy runoff would force SRP to release into the Salt as "much or more" water from reservoirs as was released during storms a week ago, SRP spokeswoman Sandy Leander said Friday night. The water probably would arrive in the Valley on Monday or Tuesday.

Last week's peak release of 124,000 cubic feet per second caused substantial damage to several bridges, the Tri-City Landfill, and businesses along the normally dry riverbed. The current rate of

See ■FLOODS, Page A12

release into the Salt is 50,000 cfs.

Roosevelt is the largest of six reservoir dams that SRP operates on the Salt and Verde rivers northeast of Phoenix. Construction is under way to elevate the dam by 77 feet to improve storage capacity and provide flood control.

One of the spillways, channels near the top of the dam that release large amounts of water when the water level is high, has been temporarily dammed to allow construction. On Friday, water was just five feet from the top of the temporary, or coffer, dam.

If the rainfall forecast is accurate, "we could probably expect to top the coffer dam," Leander said.

There also is fear that an exposed irrigation pipe below the dam might be damaged if the coffer dam is breached, Keane said.

The irrigation pipe is used to release water during the summer, when the reservoir level is below the spillways.

To accommodate construction, Roosevelt Lake stood at only 70 percent of capacity before the storms.

On Friday, Roosevelt Dam was releasing water at its maximum capacity — about 24,000 cfs — through its one operating spillway and the irrigation pipe.

"We will really have a much better picture (today) and Sunday as we see how much rain actually falls," Leander said Friday.

Meanwhile, officials stepped up relief efforts for hundreds of flood victims around the state.

On Friday, the Arizona Emergency Council authorized an additional $1 million from the Governor's Emergency Fund for flood-related emergencies. Gov. Fife Symington pledged $100,000 from the fund earlier this week.

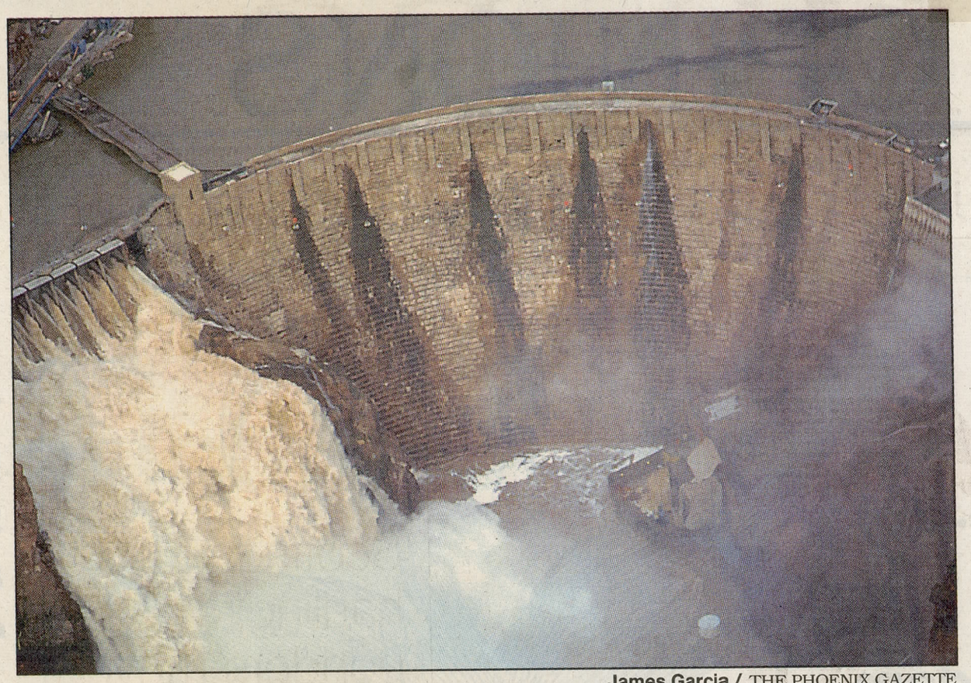
Symington also wrote to President Bush, asking him to declare Arizona a federal disaster area. In his letter, Symington said damage exceeds $25 million.

William Lockwood, director of the state Division of Emergency Management, said the tab so far could reach $40 million.

Ten of Arizona's 15 counties have qualified as state disaster areas.

If Bush declares a federal disaster area, federal funds would be available for cleanup and reparations.

Sen. Dennis DeConcini, D-Ariz., spoke with federal emergency officials Thursday and said he was confident federal disaster relief would be made available.



James Garcia / THE PHOENIX GAZETTE

**Water was being released from Roosevelt Dam on Friday at only about 24,000 cubic feet per second — its maximum capacity because of construction. Salt River Project officials fear the 3 to 5 inches of rain expected in the central mountains this weekend could push the lake over a temporary dam protecting construction on one of the dam's spillways. Although the project on the dam could be heavily damaged, the 80-year-old dam itself is not in danger, the officials said.**

DeConcini toured the devasted Winkelman Flats area Friday afternoon and concluded the 150 families in the area may have to be relocated.

"The reality of trying to build a levee to protect these people is not very good," DeConcini said in Winkelman.

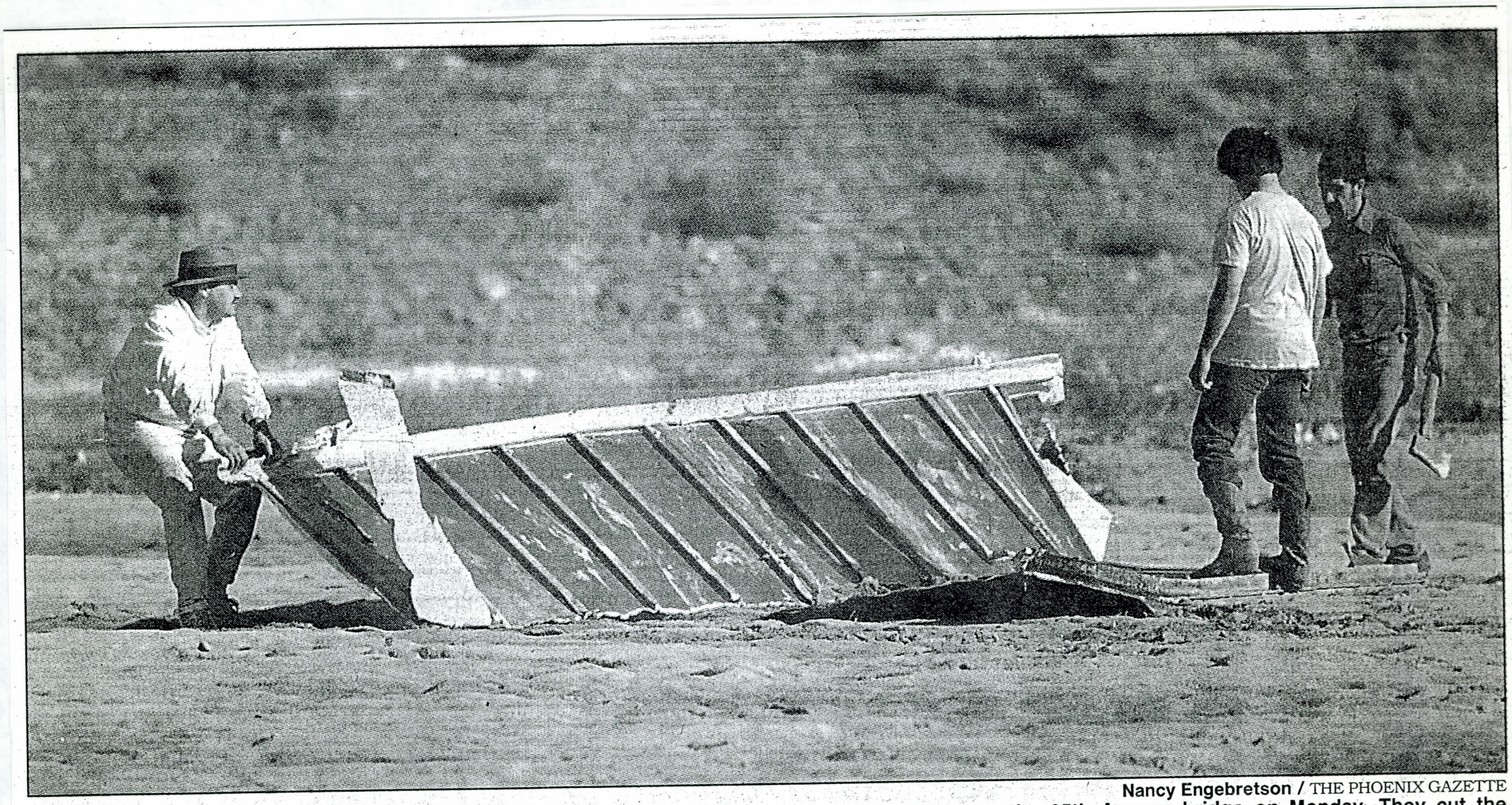
Winkelman Vice Mayor Gilberto Ruiz, a resident of The Flats, said families in the low-lying area unanimously agreed in a vote Friday to band together to seek federal relocation.

"There is no way we can rebuild and see the same thing happen again," Ruiz said.

The weekend storm also could cause more flooding along the Gila, San Pedro and Santa Cruz rivers in central and southeastern Arizona.

More evacuations in communities such as Kearny, Kelvin and the Gila River Reservation are expected if flows in the Gila increase dramatically.

The Gila River communities have been overwhelmed by local runoff as well as uncontrolled releases from spillways at Coolidge Dam.



Nancy Engebretson / THE PHOENIX GAZETTE

**Mel Calderon (left), Carlos Apodaca and Rosendo Calderon salvage scrap metal left by the receding Salt River. They planned to carry the aluminum to a recycling plant near the 35th Avenue bridge on Monday. They cut the metal from the cargo box of a truck buried in the river bottom.**

# Emergency planners cast wary eyes to the skies

By Victor Dricks
THE PHOENIX GAZETTE

▶ Rising Gila worries town, A2

With a storm front moving in from Hawaii, Maricopa County and state emergency planners know their battle to impose order on the chaos caused by nature is far from finished.

"We're in pretty good shape right now," Robert Bishop, director of Maricopa County's Department of Emergency Management, said Monday. "But we're holding our breath and keeping fingers crossed."

Two to 3 inches of rain fell on parts of the Valley on Sunday.

A storm off San Diego early today was expected to bring cloudy skies to Arizona this afternoon and rain tonight, the National Weather Service said.

Luckily, the snow level will be relatively low — between 6,000 and 6,500 feet.

"This means most of the precipitation will be frozen and will not melt the existing snowpack, compounding our runoff problem," said Hector Vasquez, a weather forecaster.

Forecasters said tonight's storm will bring 1 to 1½ inches of rain to the Valley and the watershed of the Salt and Verde rivers. That's good news for emergency planners, whose worst-nightmare scenario was 4 or more inches of rain tonight or Wednesday.

Within their steel and concrete bunker

See ■ WATER, Page A10

## ■ WATER

From A1

nestled under a butte on the Papago Military Reservation, emergency planners are keeping their electronic eyes and ears open, and say they are ready to deal with the new storm.

"We're confident of our ability to handle whatever this new storm brings," Sandy Leander, a spokesman for the Salt River Project, said today. "Our confidence is based on the fact that we just handled a storm five times bigger than the one that may roll in tonight."

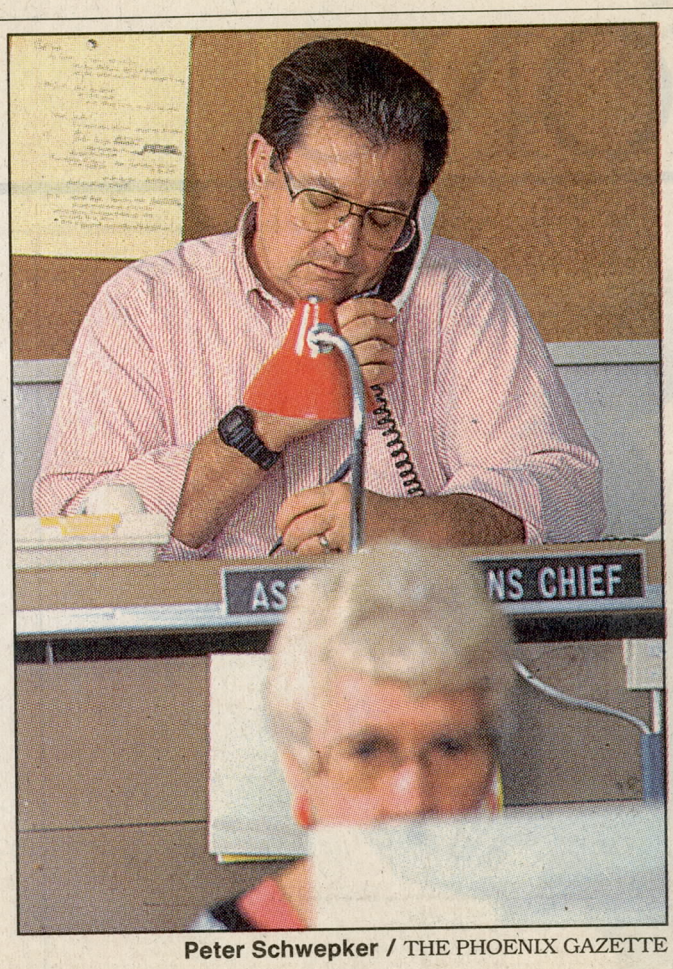
No damage estimate was available Monday for the 1993 storms, which have dumped up to 9 inches on the Salt and Verde rivers' 13,000-square-mile watershed.

"It may be days, weeks before we know the real extent of the damage," Bishop said. "A lot of it won't be seen until the waters recede."

Wall charts and maps in the emergency operations center display the status of all bridges, roads and dams within the county. Their status may change as a half-dozen workers scurry about with data gleaned from the National Weather Service, the Maricopa County Sheriff's Office, other area law enforcement agencies and the Arizona Division of Emergency Management.

From their command post, county officials are directing all emergency relief operations in unincorporated parts of the county. Towns and cities are responsible for their own operations but are coordinating with county and state officials, Bishop said.

"One of the reasons we're in such good shape is because of all the new dams, bridges, canals and diversion channels built during the past decade," he said. "But we've also improved our interagency communications, largely as a result of drilling twice a year for disasters at the Palo Verde nuclear plant.



Peter Schwepker / THE PHOENIX GAZETTE

**Emergency services planners John Stewart and Mary Riddle have been busy at the Maricopa County Emergency Services Center. From there, county officials direct emergency relief operations in unincorporated parts of the county. Cities are responsible for their own operations.**

"We're in pretty good shape right now. But we're holding our breath and keeping fingers crossed."

**Robert Bishop**
Director, Maricopa County
Department of Emergency Management

"We're watching Coolidge Dam very carefully because it's very close to full," Bishop said of the 935,000 acre-foot-capacity reservoir in Gila County just south of the Globe-Miami area.

An acre-foot of water is the amount that would cover an acre to a depth of 1 foot, or 325,851 gallons.

All six reservoirs on the Salt and Verde river system are full because of the heavy rains, Bishop said. So far this year, 500,000 acre-feet of water have flowed over Granite Reef Dam — the equivalent of half a year's water supply for Phoenix.

"I don't think we'll be worrying about drought this summer," Bishop said.

Eight counties — Coconino, Pima, Gila, Maricopa, Graham, Apache, Greenlee and Yavapai — remained under declared flood emergencies today.

PHOENIX GAZETTE
JAN. 20, 1993

# Arizona to get financial help, break from rain

## Flood victims are eligible to receive federal funds

By Russ Hemphill
and Clay Thompson
THE PHOENIX GAZETTE

The danger of Valley flooding is over, but swollen rivers are keeping hundreds of Arizonans from their homes.

Late Tuesday, President Bush declared Arizona a disaster area, making flood victims eligible for federal financial aid. Under the declaration, the Federal Emergency Management Agency will identify which counties are eligible for funds.

▶ Mesa keeps using landfill, B1
▶ Lake Pleasant doubles, B2

The aid will include low-interest loans and grants. Disaster field offices will open,

See ■ FLOODING, Page A12



# ■ FLOODING

From A1

but locations have not been announced.

"For now, the big threats seem to be over," said Stanley Smith, director of the Maricopa County Flood Control District.

The Valley, enjoying its second day of sunshine, saw the Salt River recede to non-threatening proportions today.

It will probably stay that way through the end of the week.

## Adding up damage

Meanwhile, the state has begun tallying up the storms' toll: at least $56 million in damage, one dead, two missing and hundreds forced from their homes.

Despite the clear skies, one last punch may be on the way for residents near the communities of Stanfield and Maricopa south of the Valley.

The swollen Santa Cruz River is rolling north, having forced the evacuation of about 150 from the community of Chuichu south of Casa Grande. The Santa Cruz, which runs north from Tucson to the Gila River, reportedly was a mile wide in some sections.

Stanfield and Maricopa residents were waiting today to see if the river would force them from their homes.

Smith estimated 30,000 cubic feet per second flowing in the Santa Cruz River will reach the Gila River sometime Friday.

Flood-control workers fear water in the Santa Cruz, when combined with the flows in the Gila and Salt rivers, could imperil the 115,000 cfs levee that protects Holly Acres in Maricopa County.

THE PHOENIX GAZETTE

"We think we're going to be OK," Smith said. "But we will be monitoring all those flows between now and Friday."

The levee will be helped by reduced flows in the Salt River, which shrunk Tuesday to 40,000 cfs.

Salt River Project spokesman Jeff Lane said the Salt River through the Valley probably will run at 40,000 cfs or less for a few days.

On the Gila River, releases from Coolidge Dam hit nearly 23,000 cfs about 8 p.m. Tuesday.

Ray Pettrigrew, a U.S. Bureau of Reclamation inspector, said flows up to 35,000 cfs over the ungated dam were possible.

Dan Galvin, a spokesman for the state Department of Transportation, said agency experts would decide today whether the Interstate 10 bridge over the Gila would have to be closed "possibly for a day" Saturday or Sunday.

The bridge can withstand the flow, he said, but flood waters could wash away the approaches to the bridge.

Pinal County Sheriff's Office deputies Tuesday recovered the body of a woman from a pickup in the Gila River at state Route 587.

Authorities believe it is the body of Christine Eckart, 39, who was in the truck Saturday with two men when they tried to drive across the river.

The men, Alex Carillo and James Skipperjosh, were rescued.

## Officer still missing

Officials on Tuesday had not found the body of Sgt. Kevin Lewis, a Gila River Indian Reservation police officer missing since Sunday while checking roads crossing the Gila River.

In Gila County, authorities resumed their search today for Wesley Hall, 29, of Glendale, who disappeared Monday while kayaking on Tonto Creek about 16 miles above Roosevelt Lake. Sgt. John Holmes of the Gila County Sheriff's Office estimated the creek was flowing at about 25,000 cfs when Hall's craft tipped over.

Meanwhile, Winkelman was prepared for another surge in the Gila River.

About 300 residents of a low-lying area of town known as The Flats have been out of their homes for more than a week. Mayor Arnold Ortiz said there is no relief in sight.

He said the floods of 1983 taught them how to handle high water.

"Our people are very resilient," Ortiz said. "They accept it."

Ortiz said there was elation at a town meeting when the federal disaster declaration was announced.

"They received it with open arms," he said. "When the news came out you could hear people clapping, just glad to hear that."

Ortiz hopes the combination of federal and state aid can get his town back on its feet. He said the upheaval caused by the flooding is difficult to deal with.

"Like I tell the people, maybe I look all right outside but my guts are really churning," he said.

The change in the state's weather fortunes are due to a high pressure system that replaced a strong low pressure system over the Pacific Northwest, according to Craig Ellis, a National Weather Service meteorologist.

The state will have warm days and cool, clear nights for the next several days.

Tuesday's blue skies brought to an end a record 14-day run of rain at Sky Harbor Airport. The old record of nine days was set in 1897.

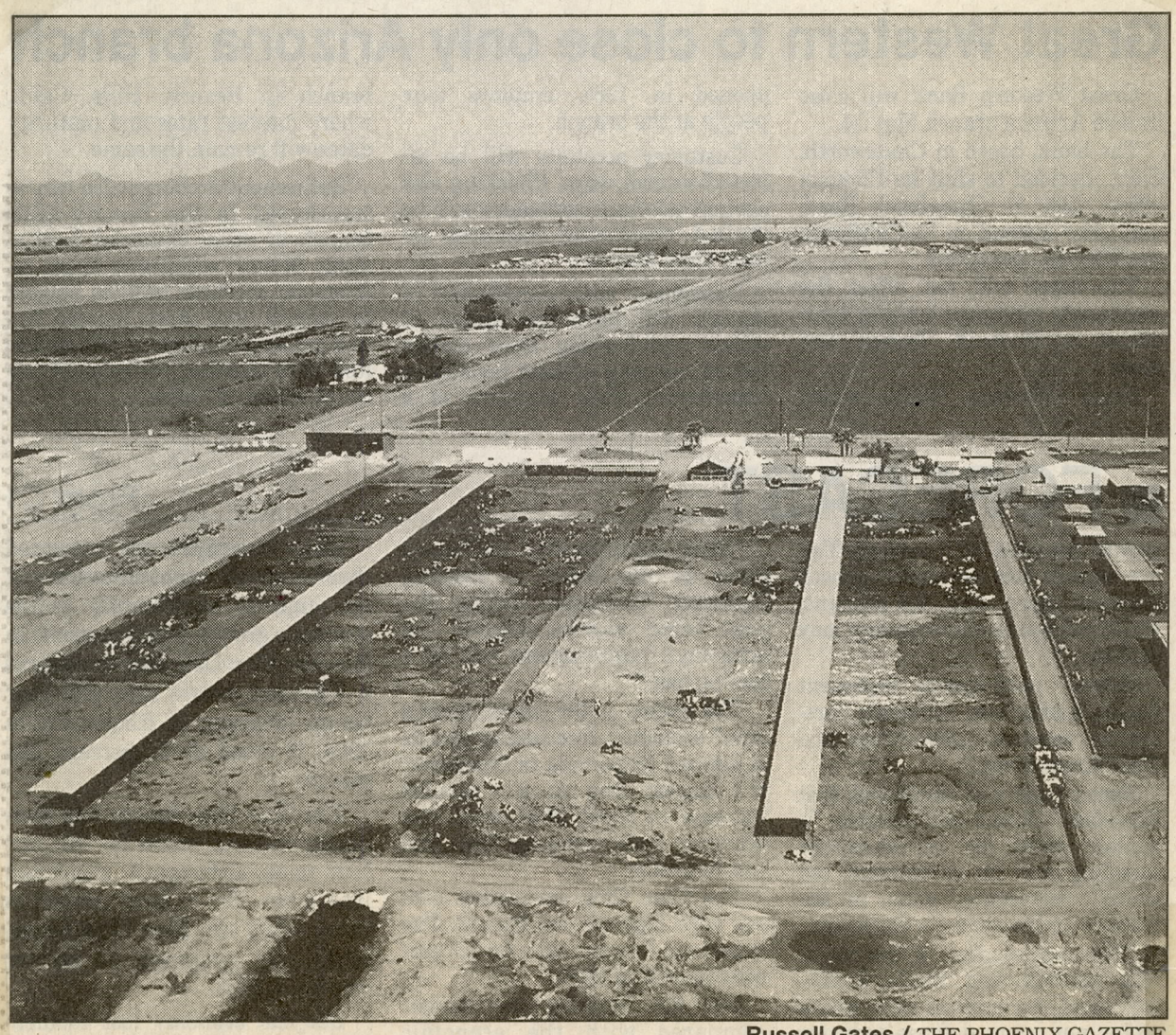
Other weather records:

This month is the wettest winter month in Phoenix — 5.22 inches. The old mark of 4.82 was set in March 1941. The wettest month in Phoenix weather history was July 1911 — 6.47 inches.

*Includes information from reporter Glen Creno.*

Peter Schwepker / THE PHOENIX GAZETTE

**The fear of flooding has eased but not disappeared for Lani Anderson, who lives in Maricopa, south of the Valley. Her husband, Andy, and son, Jeremy, spent most of Tuesday stacking sandbags to protect their newly built living room.**



Russell Gates / THE PHOENIX GAZETTE

**Floodwaters caused extensive damage to this dairy farm along Beloat Road, just east of Buckeye. January's rain and subsequent flooding spelled disaster for many farmers and ranchers.**

# FARMERS

From C1

the pilot said his father lost the use — at least for this season — of big pieces of his 750-acre farm along the river.

"It's like a factory," Kelly said. "They're shut down for the whole year. You've wiped out the plant."

In addition to the damage to the land, the floods wreaked havoc with irrigation systems. Pumping capacity was knocked out in many places, and irrigation ditches were left choked with mud and debris.

The small Arlington irrigation system serves just 15 farms, Gable said, but if half those customers cannot buy water this year — because they have no crops to water — the others will have to pay sharply higher prices for their water.

Kelly said the economic impact goes beyond the farms. If farmers aren't farming, they aren't spending money with crop-dusters, farm equipment dealers, seed companies or anyone else that relies on a farm-based economy.

How bad is the damage?

Kelly won't know for a while. Assessment of flood damage to Arizona agriculture is in the works. The 1980 floods did about $500 million in farm damage, he said.

In the meantime, there is little Kelly can do to provide direct relief to the state's farms and ranches. His best bet, he said, is to work with the state's congressional delegation to encourage federal agencies to speed what aid they can give.

But federal help is a confusing mix of agencies, different rules and varying criteria.

Neal Hoffman, who leases his 50-acre dairy near Liberty to another dairyman, said he asked the federal Agricultural Stabilization and Conservation Service, the Farmers Home Administration and the Small Business Administration for help. He struck out with all three.

The long-range answer, Hoffman told Kelly, is channelization or other flood control measures along the Gila. However, environmental, pollution and wildlife concerns make that a long shot.

Jonathan Wilson, the Farmers Home Administration supervisor for western Maricopa County, said his office has received several inquiries from farmers in recent weeks, but is not sure how many he can help.

Since the agency lost millions of dollars on bad farm loans in the late 1970s, qualifying criteria have been tightened.

Wilson estimated only 25 percent of the farmers who seek help from his agency will receive it.

John Kains, a program specialist for the Agricultural Soil and Conservation Service, said his agency's rules deny help to anyone who has been flooded three times in the past 15 years. That rules out many of the farmers along the Gila, who were hit by floods in the late 1970s and early 1980s.

That leaves folks like Hoffman wondering what will become of them and their neighbors.

"What do you do? What do you say? You get tired of trying to be a survivor," he said.

PHOENIX GAZETTE
FEB. 10, 1993

THE PHOENIX GAZETTE

# CALAMITY for CROPS

## *Floods devastate farms, ranchlands*

**By Clay Thompson**
THE PHOENIX GAZETTE

For most Valley residents, January's floods were a novelty at best, an annoyance at worst. The water came, the water went.

But for scores of Arizona farmers and ranchers, the floods were a full-blown disaster, and in the water's wake are acres of ruined fields and miles of silt-filled irrigation ditches.

"There is agricultural impact out here that goes on long after the rest of us in Phoenix go back to the golf course," said Keith Kelly, director of the Arizona Department of Agriculture.

Kelly spent several hours last week touring by plane and pickup flood-ravaged farms and dairies along the Gila River near Buckeye.

"You just don't see this in Phoenix. You think everything is fine," he said as the single-engine plane piloted by Gary Gable cruised above the Gila.

Below, vast blankets of mud blotted out whole fields. The boundaries of the floodwaters were perfectly clear from the air. Everything is gray and brown where the water had been. Where the river stopped, bright green fields of barley and alfalfa follow the water line.

Gable, a commercial pilot, farmer and member of the board of the Arlington Canal Co., shouted over the engine and pointed to a swirling curve in the Gila.

"See that? That was a field. It's river now."

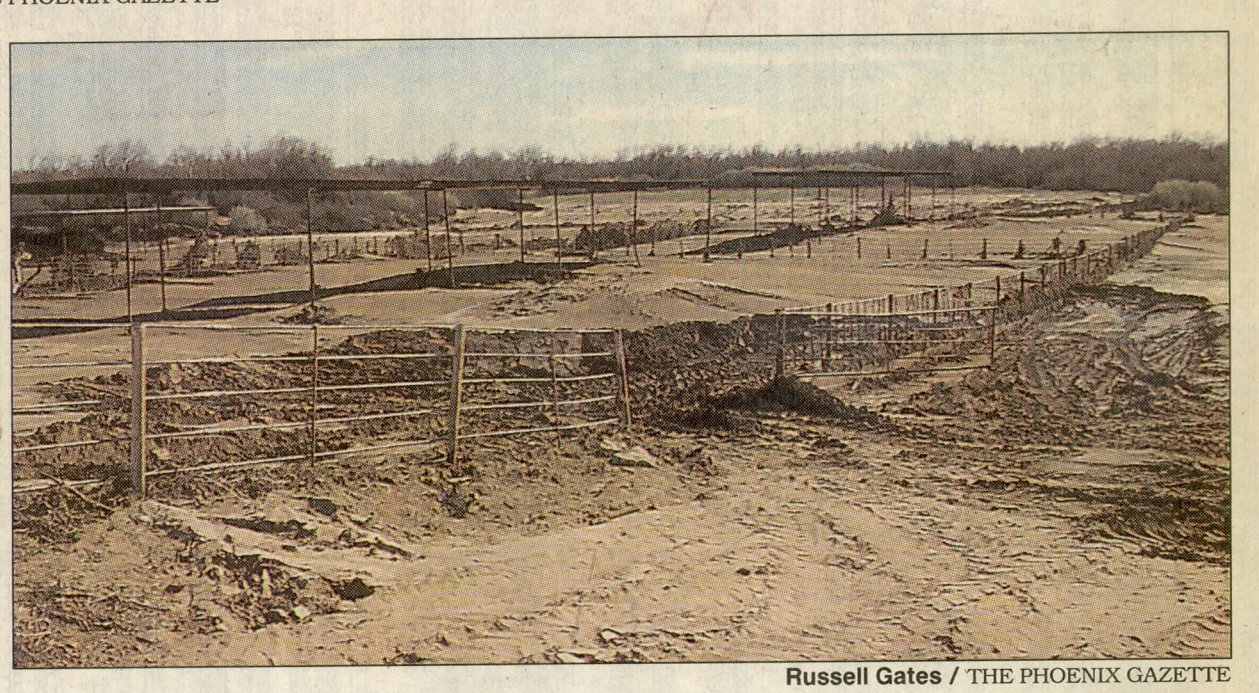
All along the Gila between Buckeye and the swollen Painted Rock Reservoir, the floodwaters cut huge chunks from productive fields. Sixty, 80, 100 acres at a time — the river simply bit off chunks of farmland and washed them away.

Where the fields in the flood plain were spared, they were buried in silt.

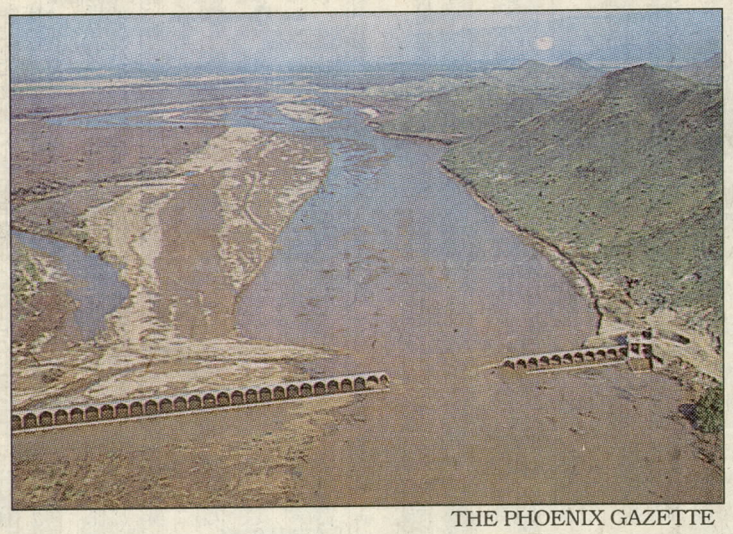
"It will probably be one year, maybe two, before some of the fields can be farmed again, but it will probably be four or five years before they get the salt or other stuff out and it's productive again," Gable said.

His own small spread escaped most of the flood, but

See ■ **FARMERS,** Page **C6**



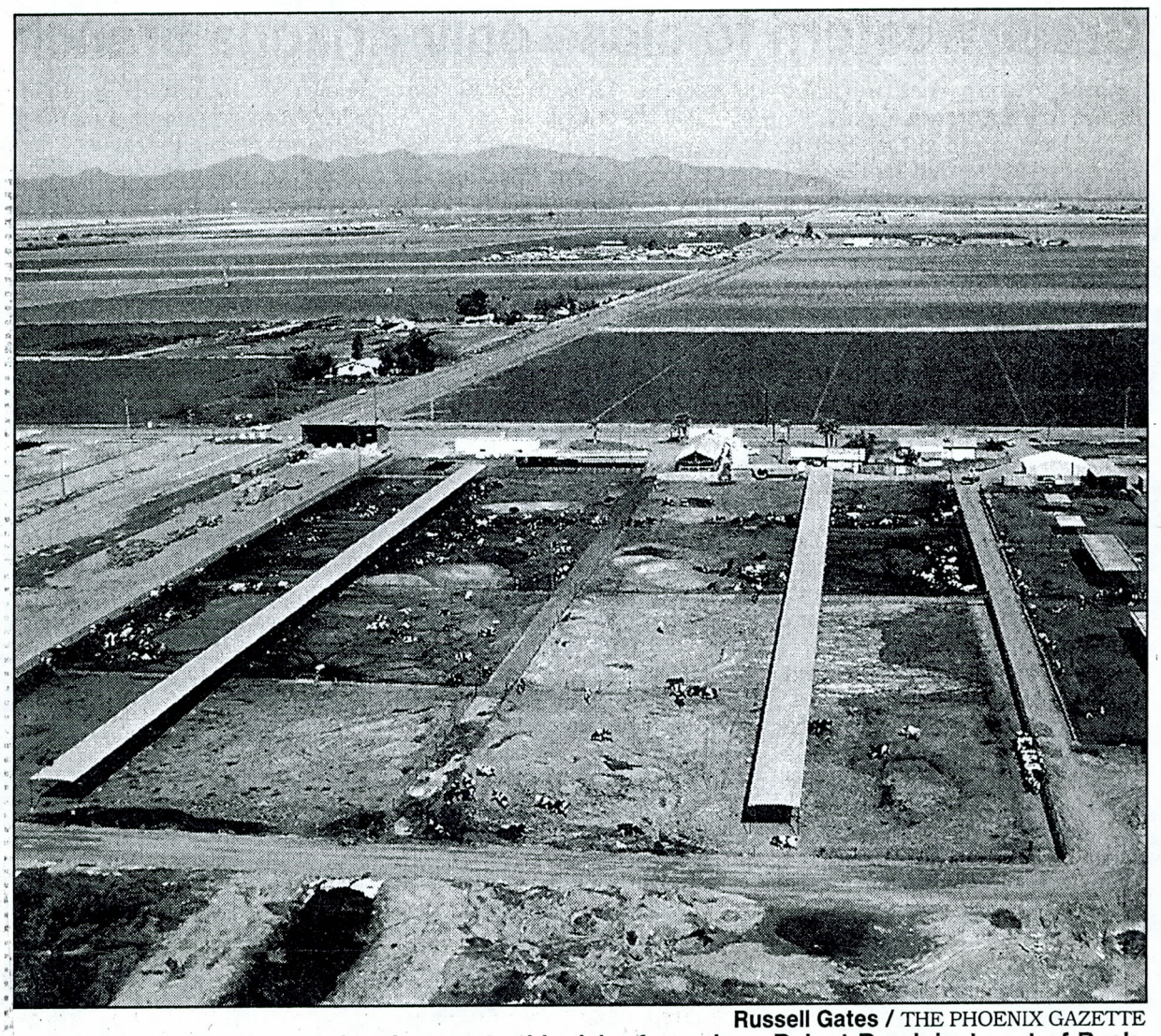
**Russell Gates /** THE PHOENIX GAZETTE



THE PHOENIX GAZETTE

**Keith Kelly (top, right) director of the Arizona Department of Agriculture, provides a sounding board for farmer Bud Calhoun. Later, Kelly took an aerial tour, viewing flood damage to the dairy farm of Jerry and Kathy Kerr (above) and the burst Gillespie Dam on the Gila River.**

-OVER



Russell Gates / THE PHOENIX GAZETTE

**Floodwaters caused extensive damage to this dairy farm along Beloat Road, just east of Buckeye. January's rain and subsequent flooding spelled disaster for many farmers and ranchers.**

# FARMERS

From C1

the pilot said his father lost the use — at least for this season — of big pieces of his 750-acre farm along the river.

"It's like a factory," Kelly said. "They're shut down for the whole year. You've wiped out the plant."

In addition to the damage to the land, the floods wreaked havoc with irrigation systems. Pumping capacity was knocked out in many places, and irrigation ditches were left choked with mud and debris.

The small Arlington irrigation system serves just 15 farms, Gable said, but if half those customers cannot buy water this year — because they have no crops to water — the others will have to pay sharply higher prices for their water.

Kelly said the economic impact goes beyond the farms. If farmers aren't farming, they aren't spending money with crop-dusters, farm equipment dealers, seed companies — or anyone else that relies on a farm-based economy.

How bad is the damage?

Kelly won't know for a while. Assessment of flood damage to Arizona agriculture is in the works. The 1980 floods did about $500 million in farm damage, he said.

In the meantime; there is little Kelly can do to provide direct relief to the state's farms and ranches. His best bet, he said, is to work with the state's congressional delegation to encourage federal agencies to speed what aid they can give.

But federal help is a confusing mix of agencies, different rules and varying criteria.

Neal Hoffman, who leases his 50-acre dairy near Liberty to another dairyman, said he asked the federal Agricultural Stabilization and Conservation Service, the Farmers Home Administration and the Small Business Administration for help. He struck out with all three.

The long-range answer, Hoffman told Kelly, is channelization or other flood control measures along the Gila. However, environmental, pollution and wildlife concerns make that a long shot.

Jonathan Wilson, the Farmers Home Administration supervisor for western Maricopa County, said his office has received several inquiries from farmers in recent weeks, but is not sure how many he can help.

Since the agency lost millions of dollars on bad farm loans in the late 1970s, qualifying criteria have been tightened.

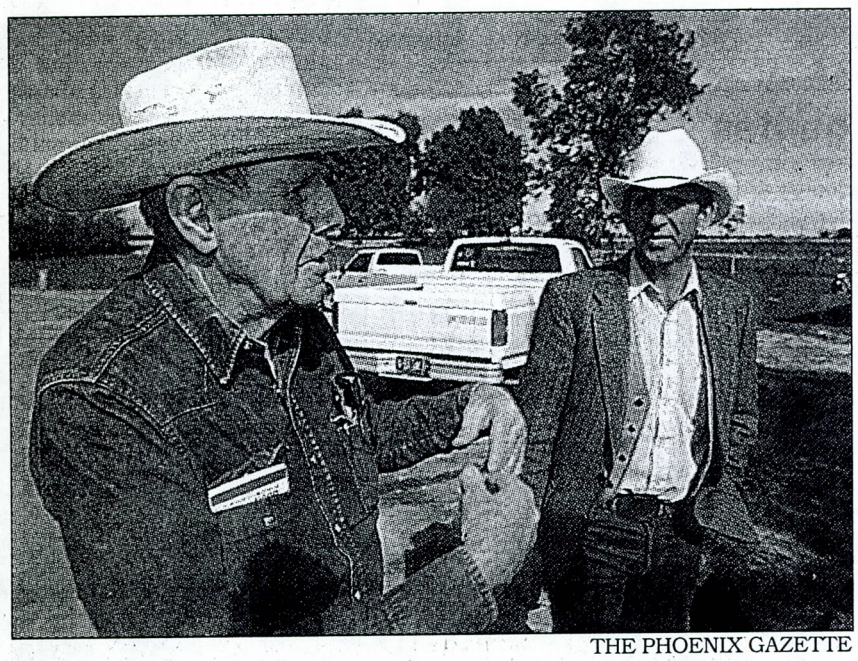
Wilson estimated only 25 percent of the farmers who seek help from his agency will receive it.

John Kains, a program specialist for the Agricultural Soil and Conservation Service, said his agency's rules deny help to anyone who has been flooded three times in the past 15 years. That rules out many of the farmers along the Gila, who were hit by floods in the late 1970s and early 1980s.

That leaves folks like Hoffman wondering what will become of them and their neighbors.

"What do you do? What do you say? You get tired of trying to be a survivor," he said.

PHOENIX GAZETTE
FEB. 10, 1993



THE PHOENIX GAZETTE

# CALAMITY for CROPS

## *Floods devastate farms, ranchlands*

**By Clay Thompson**
THE PHOENIX GAZETTE

For most Valley residents, January's floods were a novelty at best, an annoyance at worst. The water came, the water went.

But for scores of Arizona farmers and ranchers, the floods were a full-blown disaster, and in the water's wake are acres of ruined fields and miles of silt-filled irrigation ditches.

"There is agricultural impact out here that goes on long after the rest of us in Phoenix go back to the golf course," said Keith Kelly, director of the Arizona Department of Agriculture.

Kelly spent several hours last week touring by plane and pickup flood-ravaged farms and dairies along the Gila River near Buckeye.

"You just don't see this in Phoenix. You think everything is fine," he said as the single-engine plane piloted by Gary Gable cruised above the Gila.

Below, vast blankets of mud blotted out whole fields. The boundaries of the floodwaters were perfectly clear from the air. Everything is gray and brown where the water had been. Where the river stopped, bright green fields of barley and alfalfa follow the water line.

Gable, a commercial pilot, farmer and member of the board of the Arlington Canal Co., shouted over the engine and pointed to a swirling curve in the Gila.

"See that? That was a field. It's river now."

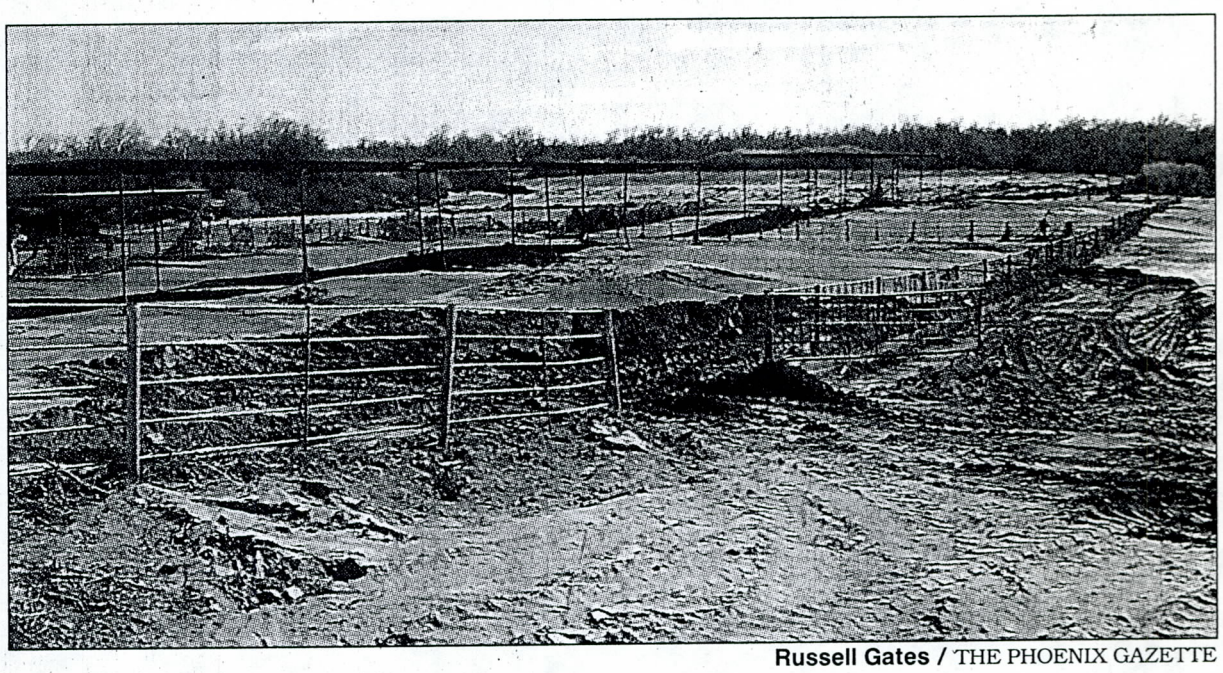
All along the Gila between Buckeye and the swollen Painted Rock Reservoir, the floodwaters cut huge chunks from productive fields. Sixty, 80, 100 acres at a time — the river simply bit off chunks of farmland and washed them away.

Where the fields in the flood plain were spared, they were buried in silt.

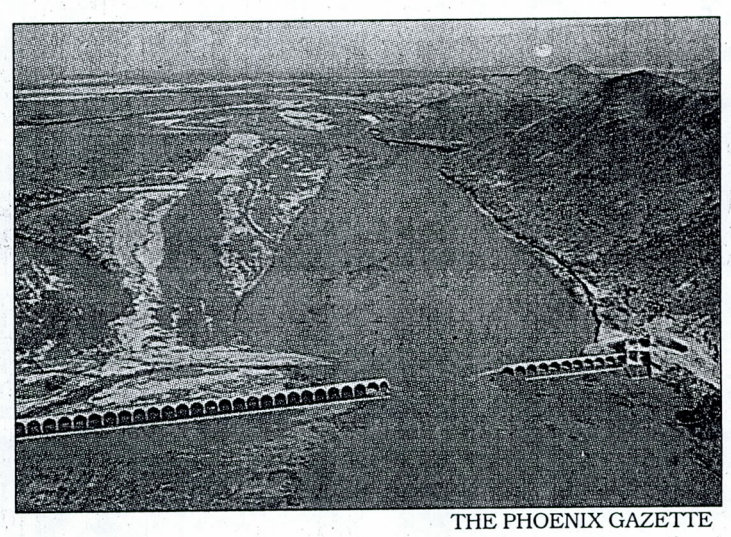
"It will probably be one year, maybe two, before some of the fields can be farmed again, but it will probably be four or five years before they get the salt or other stuff out and it's productive again," Gable said.

His own small spread escaped most of the flood, but

See ■**FARMERS,** Page **C6**



**Russell Gates /** THE PHOENIX GAZETTE



THE PHOENIX GAZETTE

**Keith Kelly (top, right) director of the Arizona Department of Agriculture, provides a sounding board for farmer Bud Calhoun. Later, Kelly took an aerial tour, viewing flood damage to the dairy farm of Jerry and Kathy Kerr (above) and the burst Gillespie Dam on the Gila River.**

-OVER

# January floods speak of an imbalance between man and Mother Earth

By Betty Reid
THE PHOENIX GAZETTE

For many Valley residents, last month's floods meant disrupted schedules, property damage and anxiety about insurance coverage.

But for people like Emmett White, the destructive waters evoked profound questions of honor and duty, of wrathful gods, of powerful stories as old as the desert rocks.

For them, the January floods harkened back to the Great Flood, when fleeing people turned to stone on Superstition Mountain. When Elder Brother, Earth Medicineman and Coyote created the Akimel O'odham people in what the white man later labeled the Valley of the Sun.

More, the floods warned that nature's grand balance has again been upset.

White, of the Gila River Indian Community, thinks the message is that one can't control the elements of life by building dams.

"For me, I don't understand why they have to dam up the Gila," White said. "Damming up a river is a sign of ownership.

"Water should run freely. Nature has a way of turning on us by saying, 'I don't belong to anybody.' "

The January floods took a heavy toll. Six people died. About 1,050 people applied for help from the state's disaster field offices, state officials said. Half of the applicants reported damaged homes.

The Gila community did not escape the waters' wrath. The tribe evacuated people as water released from Coolidge Dam flooded the banks of the Gila River near the reservation communities of Santa Cruz and San Tan.

One tribal member, Sgt. Kevin Lewis, a Bureau of Indian Affairs police officer, was missing for three weeks until his body was discovered Thursday on a sand bar in the river.

The Gila — who still call themselves the Akimel O'odham, or River People — are descendants of the ancient Hohokams. They are related to the Tohono O'odham, who call themselves the Desert People, and to the Pima Maricopa tribe.

The Gila River Indian Community has about 20,000 people and stretches along the Gila River beginning near Florence and Sacaton.

Once, the Akimel O'odham were alone in the valley. When he thinks of those days, White glances at Superstition Mountain and is reminded of the Pima people who turned to stone fleeing the Great Flood.

To White, an instructor at the St. Peters Indian Mission in Bapchule, any examination of nature's conduct must begin with the Great Flood. Long before the huge irrigation dams, before skyscrapers appeared on Central, before houses started creeping up Squaw Peak, Mother Nature sent rain because the Pimas had become unruly and disrespectful.

The people climbed Superstition Mountain as the water rose behind them, but the water caught up with them. Out of fright, they turned to stone.

Even today, they remain on Superstition Mountain as clusters of stone figures. The only survivors, Elder Brother and Earth Medicineman — sometimes with the help of Coyote — later re-created the Pima from the mud left behind by the Great Flood.

They emerged as they remain today — Akimel O'odham, the River People.

The January floods hardly compare with the legendary deluge that annihilated the tribe. Still, for American Indians, earth, wind, fire and water are the central elements of life.

And for them, a natural disaster is far from a random event. It's a message that they have done something to rupture their fragile relationship with Mother Earth.

For some tribal members, the January floods mean the time has come to re-examine man's relationship with the forces of nature.

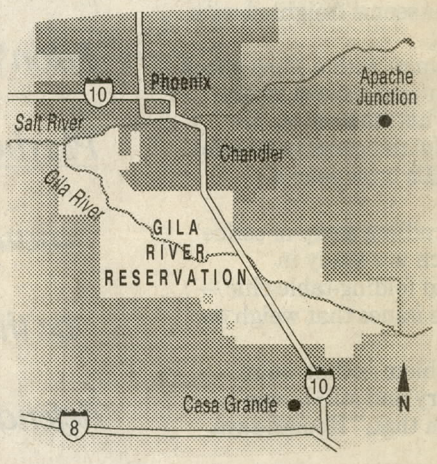
White doesn't have easy answers for how today's society could re-establish a balance with Mother Earth. It's unrealistic, he knows, to think of eliminating the modern world's dams, bridges and skyscrapers.

Life in the Valley, he said, has become too complicated to simplify.

But Joseph Enos of Gila River Arts and Crafts believes harmony can be restored by honoring the rivers in special ceremonies. Enos, 49, a member of the Tohono O'odham, has been advocating traditional tribal beliefs for more than a decade.

"The floods have been telling us something," Enos said.

Catastrophic natural events usually mean Mother Earth is urging unity, Enos said.




"In my mind, I see our ancestors huddled by the river and looking very alone, very solitary and abandoned. They are trying to remind us that we need to honor the rivers because they were life sources for our ancestors.

"We've forgotten to honor the rivers and our ancestors."

Later this month, Enos and 15 members of the Salt River Pima-Maricopa plan to follow their beliefs by making an offering to the Salt River.

White agrees with Enos. White believes Mother Earth unleashed torrential rains last month as a way of alerting tribal members that they've forgotten the river songs and prayers.

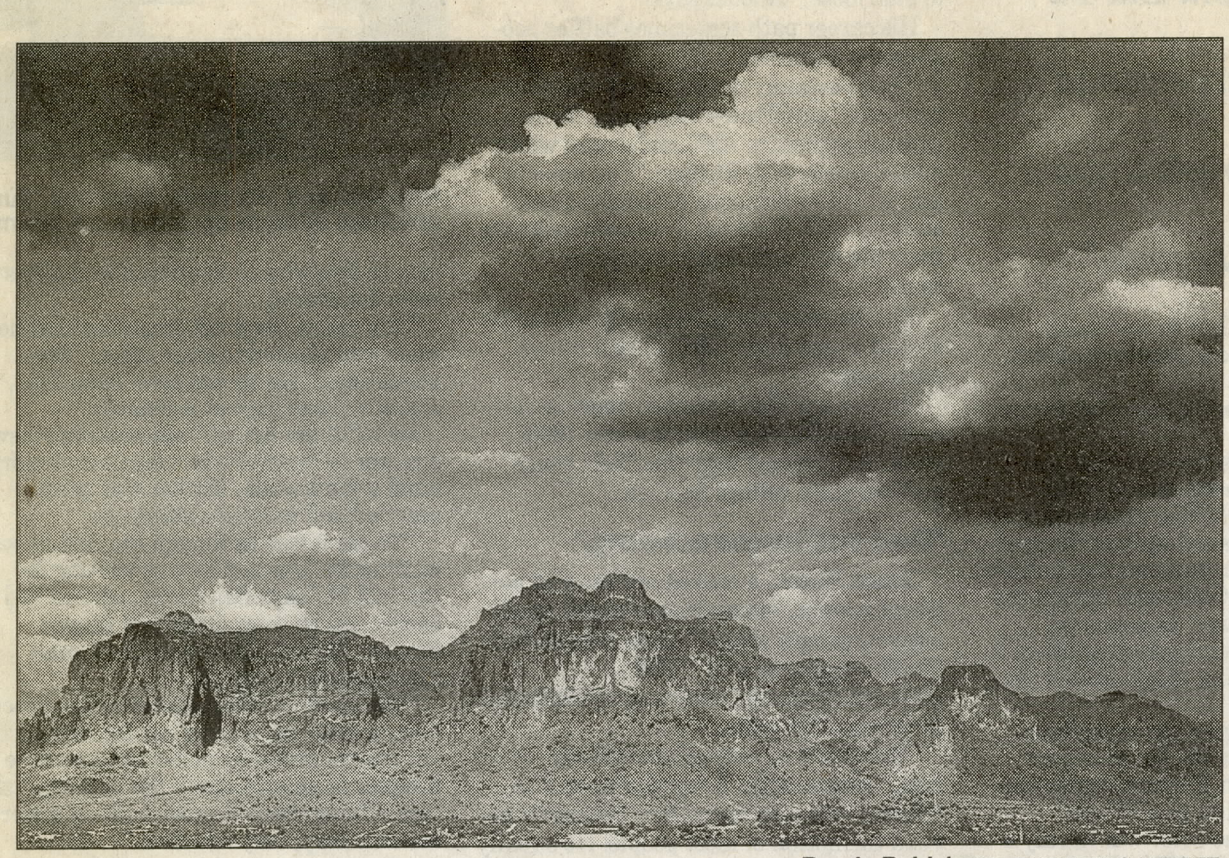
"We're lost," White said.

"It's like an Indian walking along this road, and he finds a bright spot on the left side of the road. He goes over to look at it. There is another bright spot ahead. He follows that spot. By the time he turns around, he's lost his way," White said.

"Progress is OK, but we need to renew the bond between us and Mother Earth. What happened to our girls' puberty ceremonies, the sacred songs? Our lives depend on money. Maybe we need to divorce ourselves from the almighty buck."

White blames the dams for the loss of Kevin Lewis.

"We don't try to get in the way of Mother Nature," White said. "We have little dams to direct water in this direction and that way. But it's the giant dams and bridges that are the real killers."



**Randy Reid** / THE PHOENIX GAZETTE

The Akimel O'odham tell the story of a Great Flood chasing their ancestors up Superstition Mountain, where they were turned to stone.

ARIZONA REPUBLIC
JAN. 10, 1993

# Arizona braces for more rain, flooding

## Water releases cut, but breather is short

By Art Thomason
The Arizona Republic

As murky rivers receded in Phoenix and hundreds were evacuated from their homes in the state's northeastern corner, Arizona braced Saturday for a new wave of torrential rains that would swell rivers and reservoirs to another round of flooding.

A flash-flood watch was issued for the entire state for today, and heavy rains are expected to hit the center of the state by morning, the National Weather Service said.

"It will not take as much rain this time to result in flooding and flash-flooding," said Craig Ellis, a Weather Service meteorologist.

"The ground is already saturated, and the additional rain will run off rapidly in low areas, (running) across roads and into normally dry washes, streams and rivers."

Waters tumbling into the state's usually dry riverbeds since Thursday forced an estimated 700 people from their homes statewide, as well as dismantling a major portion of a new Mill Avenue bridge under construction in Tempe and sweeping tons of garbage and debris out of landfills along the Salt River bed.

Unbridged crossings of the Salt River will remain closed today as will bridges at 35th

— *See* **STATE,** *page A2*

**MORE INSIDE:**
Damage around the state, **Story, A2**
What environmental waste will floods leave behind? **Story, B1**

# State gets respite, but more rain is on way

— **STATE,** *from page A1*

Avenue and at Gilbert Road. Old U.S. 80 also has been closed because of bridge damage near Gillespie Dam, and the bridge carrying Arizona 85 over the Gila River has washed out.

Police on Saturday chased hundreds of camera-toting sightseers and their dogs away from the banks of the raging Salt River in Tempe.

The damage to the new bridge there — and how it will be paid for — won't be known until floodwaters have receded and the Army Corps of Engineers can assess it, said John Paulsen of the Arizona Division of Emergency Management.

The old Mill Avenue Bridge, which currently carries traffic, remained open.

"There are a lot of unknowns right now," Paulsen said. "Perhaps we'll have to tear down what we have and start over."

Despite its dramatic fury, Arizona's worst flooding in a decade did not leave nearly the toll anticipated by emergency agencies.

No deaths were reported other than those of livestock and pets. Despite reports by emergency officials of an estimated 700 people fleeing their homes, Red Cross officials said Saturday that no evacuees sought help from the agency in the Valley.

Nearly 300 people in a farming area north of Winslow were evacuated after rushing waters in the Little Colorado River broke through a 150-foot section of dike, Winslow police said. Eighteen Navajo families also were evacuated in the Birdsprings Chapter of the reservation in northeastern Arizona. Evacuees were sent to shelters in four local churches.

In Maricopa County, 200 residents evacuated from a Mesa mobile-home park and from the far southwestern Valley were told Saturday that they could return home. Meanwhile, the Red Cross' central Arizona chapter closed two emergency shelters it had opened Friday.

"Nobody showed up," said a perplexed Claudia Schnagl, a Red Cross spokeswoman. "We don't know what to make of it."

It was not known how many of the evacuees might have returned to their homes, said Karen Paulsen, a spokeswoman for the Division of Emergency Management.

An official with that agency said Maricopa, Pima, Apache, Coconino, Gila, Graham and Yavapai counties, and the city of Winslow took initial steps to procure state aid.

That provided little comfort to residents living in or near flood plains, for whom forecasts of more rain today meant the probability of new flooding as storms moved into the state from the west.

Ellis said the storms will hit most areas of Arizona and are expected to last into tonight, adding to an already saturated Valley and forcing water releases from reservoirs upriver in the statewide system used for flood control and crop irrigation.

Rain clouds are expected to clear out Monday, but another storm is expected late Tuesday and Wednesday, Ellis said.

The new storm is expected to dump as much as 6 more inches of rain in the mountains of southern California, about an inch in the Valley, and 2 or 3 inches in Arizona's mountains.

"We're predicting the worst will be on Sunday, and we probably won't be increasing any water releases from dams until then," said Teri Morris, a spokeswoman for Salt River Project, the quasi-public utility that regulates water flows in the Valley by controlling releases from upstream dams.

The rain has put a dent in the Valley's multimillion-dollar golf industry. Some courses have been closed for several days because of flooding.

Other businesses benefitted when the rains came, such as Southwest Helicopters Inc. of Tucson, a commercial firm charging $50 a head for rides to and from the northeastern part of the city, which has been isolated by raging waters in a wash since late Thursday.

Victoria Buckner/The Arizona Republic

George Blanton tours his flooded property Saturday at 107th Avenue near the Salt River. The beekeeper lost 120 hives in Friday's flooding, but the water did not rise high enough to seep into his mobile home.

Paul F. Gero/The Arizona Republic

Part of a car protrudes from floodwaters, which apparently snatched it from a salvage yard at 67th Avenue near Northern Avenue.

SRP hydrologists Saturday tightened the huge faucets at the Granite Reef Diversion Dam east of the Valley, reducing water releases to 100,000 cubic feet per second. SRP planned to cut releases even further, to 50,000 cfs, by early today. At the height of Friday's flooding, 125,000 cfs gushed from the dam.

The new storms, like those triggering Friday's flood, are expected to melt snow in the mountains, sending more water downstream into swollen reservoirs and into the Valley.

The source of most Valley flooding is the 13,000-square-mile watershed of the Salt and Verde rivers. There are six dams — two on the Verde and four on the Salt — for water storage and flood control.

"The system is designed so water from the watershed flows into the two rivers and lakes (reservoirs) and then can be controlled through these series of dams," Morris said.

The two rivers come together just east of the Granite Reef Diversion Dam, which usually channels water into irrigation canals. Normally, the water is diverted to two main canals that run through the Valley.

"But now the problem is that we have more water coming into the system than we can use," Morris said. "The reservoirs are full, and you have to send it somewhere."

At Roosevelt Dam, which is undergoing renovations to raise its height by 78 feet, the only remaining spillway gate — the right spillway — and the dam's interior tunnel both were wide open Saturday to allow as much water as possible out of Roosevelt Lake, an SRP spokesman said.

The dam's left spillway has been sealed off because of the work, which eventually will raise the height of the dam to 358 feet from 280 by 1995.

Saturday, however, the lake was 13 feet below the top of the dam, SRP spokesman Scott Harelson said, with only 44,306 acre-feet of storage left. The dam had 248,681 acre-feet of storage before Friday's runoff, Harelson said.

An acre-foot is 326,000 gallons, or enough water to serve a residential family of four for one year.

## Red Cross shuts shelters — no one showed up

The Red Cross closed its flood shelters Saturday because of a "lack of activity," spokeswoman Claudia Schnagl said.

However, the agency's regular 24-hour emergency line, 264-9481, remains in operation. A special hotline set up for flood victims was shut down because "we have not had any calls," Schnagl said.

Volunteers are standing by in case evacuations are needed in the event of new storms expected today and early this week.

"It's evident that (flooded-out) people are staying with loved ones," Schnagl said. "This is the lull before the storm."

Contributing to this article were Bob Golfen, Jerry Kammer, Eric Miller, Mark Shaffer and Steve Yozwiak of *The Arizona Republic.*

ARIZONA REPUBLIC JAN. 16, 1993

Sean Openshaw/The Arizona Republic

Floodwaters up to 5 feet deep covered Winkelman Flats before subsiding into the Gila River on Tuesday. But residents had little time to salvage personal possessions before another flood hit the area Wednesday.

# SALVAGE FROM THE STORM

## Act swiftly to reduce, replace flood losses

**Stories by Betty Beard**
The Arizona Republic

If your home has been flooded, the first shock comes from seeing it surrounded by water.

But when the water recedes and you see the inside of your house, it's like staring at a corpse.

Mud probably has spread throughout like a big parasite, burying the floor, turning books to soggy garbage, gluing photographs to their frames, seeping around the refrigerator motor, swelling your wood furniture and leaving stains and a stink throughout your belongings and your mind.

You'll want to curse and cry. You won't know what to do or where to start.

Fortunately, many things can be salvaged and all evidence of the flooding can be erased. Appliances, vehicles, some wood furniture and even some photographs may be saved, while

— *See* **ACT**, *page E3*

Sean Openshaw/The Arizona Republic

Cecilia Perez (right) and Becky Garcia help Arthur Monterde move belongings to his daughter's house after his Winkelman Flats home was flooded.

– OVER

# Act swiftly to reduce and replace flood losses, restore home

— ACT, *from page E1*

books, mattresses, flooring, and badly stained and mildewed clothing probably will have to be pitched.

Flood experts say the two most important things to do right away are to watch out for your personal safety as you re-enter the house, and to begin documenting your losses for insurance reimbursement or, if you don't have flood insurance, in the event that you may later be eligible for federal or state grants or loans.

Then you'll want to begin pulling things out of the water and mud so that they dry properly. The quicker you do this and let your house dry, the less damage, bacteria and mildew growth there will be.

If your house has been flooded, here are specific tips:

## Personal safety

Before you re-enter your house, make sure it is not in danger of collapsing, advises the National Flood Insurance Program. Turn off outside gas lines at the meter or tank and let the house air for several minutes to let any gases or foul odors escape. Don't use open flames for light. Use a battery-operated flashlight.

Turn off the main power switch before walking around your house. That pond in your living room could be hiding some electrical shorts or live wires that could give you a fatal jolt. And after the house has dried, don't turn on any lights or appliances until an electrician has checked the system.

Throw out fresh foods and opened medicines contaminated by flood water. Disinfect all cups, utensils, plates, etc., with bleach before using them.

Boil any water for 10 minutes before you use it for drinking or food preparation, even after the public water has been declared safe, because some of the water in the pipes may have been contaminated. Another disinfection method is to mix half a teaspoon of liquid bleach with 2½ gallons of water and let it stand for five minutes.

## Insurance

Start documenting everything, whether or not you have flood insurance. Keep lists of everything that is damaged, even if it is has to be thrown away. The best way to document your losses is by taking lots of pictures, before and after the water has receded.

Unless you specifically remember buying a separate insurance policy for flood coverage, you probably don't have it. Regular homeowner's insurance does not cover flood losses, although most people believe it does, says Diana Herrera, Western regional manager for the National Flood Insurance Program in Sacramento.

If you don't have insurance, you might be able to get low-interest loans to repair your house from the Small Business Administration. And if Arizona is declared a national disaster area, other grants and loans may become available. Federal and state agencies would then set up centers where you can get details.

## House structure

Your flooded house is probably going to remain standing, although everything except the outside walls and roof may have to be gutted and rebuilt if your house has been submerged.

The most important thing about rebuilding is to make sure all the concrete, blocks and wood in the house foundation and walls are dry before rebuilding over them. Otherwise, mildew may develop and lead to rotting. Some water-damage specialists have special meters that can measure the moisture in wood and cement.

The foundation is not likely to be damaged, unless it sits on weak or expansive soils, says Dave Swartz, operations manager and inspector for Semmens and Associates, a Phoenix civil and structural engineering firm.

Look out for any cracks more than one-sixteenth of an inch that develop in the foundation (outside base of the house) or concrete-block walls. To see whether the foundation has cracks, look at the outside base of your house. If you see a crack thicker than one-sixteenth of an inch that you believe is new, you may want to call a licensed structural engineer. Get estimates from several.

Otherwise, the flooring and all interior doors and cabinets probably will have to be replaced. And some of the drywall on interior walls may have to be redone after the insides of the walls are dry.

## Flooring

Flooring, including carpeting and vinyl tiles, will have to be taken up so the floor underneath can dry thoroughly, said Don LaBarge, owner of Desert Chem-Dry, a Mesa carpet-cleaning company, and Western Floor Maintenance & Janitorial Services, a Mesa company that specializes in fixing water damage. Otherwise, your house will start smelling like a lagoon.

Vinyl flooring will warp and come loose anyway. There are varying opinions about whether carpeting and padding can be salvaged. Wet carpeting may rip when it's pulled up. And sometimes wet furniture and other items stain the carpeting beyond repair or the fibers begin to come apart.

## Furniture

Your solid-wood antique furniture has the best chance of surviving a flood because the wood can absorb water and retain its shape, says Norm Barth, owner of Custom Wood Finishing in Scottsdale. Furniture made of plywood also might survive. But pieces made of particleboard probably will be warped beyond repair.

Take all wooden furniture outdoors but keep it out of direct sunlight to prevent warping, advises the National Flood Insurance Program. Remove drawers, but don't pry them open from the front. Remove the backing and push the drawers out from the back.

Mattresses that are soaked or even partially wet probably are not worth saving, unless it's a real hot day and there's a good chance you can dry them thoroughly, said Gloria Molina, manager of Mesa Mattress, a company that renovates mattresses. Otherwise, mildew can develop inside and the springs can begin to rust.

Sofas have a better chance of surviving if they are covered with a man-made fabric like Herculon, says Ed Smith, owner of Servicemaster by Ed Smith, a Mesa company that cleans carpets and the results of flooding, fire and other disasters. Natural fibers such as cotton and silk may be stained too badly by the mud, he said. Take your sofas out as soon as possible so they can begin to dry.

## Vehicles

A submerged car obviously is going to need repairs, but it's probably not a total loss. You're in luck if you have comprehensive auto insurance because flood damage probably is covered, according to State Farm Insurance representatives.

The damage is likely to be worse the longer the vehicle is submerged. Water probably will end up in the engine, and some parts such as bearings may have to be replaced, according to a spokesman at Lou Grubb Chevrolet in Phoenix.

It is important to have the inside of the vehicle dried out, or it could begin to rust and mildew could develop in the upholstery, said Wayne Mosbarger, owner of Ultimate Detail, a downtown Phoenix automotive detailing shop. A detailer can remove the upholstery and carpeting and vacuum out the water from the floor, dry it and shampoo it.

## Swimming pools

If the motor of your swimming pool has been submerged, don't turn it on, or it might fry. Let it dry thoroughly. Motors generally are designed to be waterproof and should be OK once they dry, says Dale Howard, owner of B & L Pool Repair & Supply Inc. in Phoenix. If the motor has been submerged in mud, have a technician look at it.

Even if you're not in a flood-prone area, it's a good idea to cover your swimming-pool motor to protect it from torrential rains, he says. It needs air, so don't wrap it in plastic. Buy a motor cover or just cover it with plywood to direct the rain away.

If your pool is full of mud, keep it stirred up so the mud doesn't stain the plaster. Keep brushing it to keep the mud loose. If it is super muddy, drain the pool or shovel it out immediately and refill it with fresh water. Also make sure you keep the pH evenly balanced in a dirty pool, or the alkaline level could rise and cause staining.

## Appliances

Hose down appliances. Their motors are sealed and for the most part they are repairable. Keep them for an adjuster to inspect.

Clean all metal parts on appliances and other items throughout your house and wipe them with a kerosene-soaked cloth to prevent rusting. A light coat of oil will prevent iron from rusting. Scour all utensils.

## Clothing, fabrics

Immediately separate your wet clothes to keep the colors from running and staining other clothes. Dry them away from direct heat.

Cotton clothes, drapes and other fabric items that are stained with mud or mildewed probably can be cleaned completely, but synthetics may not be cleanable, advises Mary Avila, owner of Downtown Laundry & Dry Cleaning Inc. in Phoenix.

## Photographs

Photos may be saved if they are separated from their glass frames and from each other, rinsed and dried as soon as possible, says Evelyn Grant, an owner of Grants Photographic Restoration in Tempe.

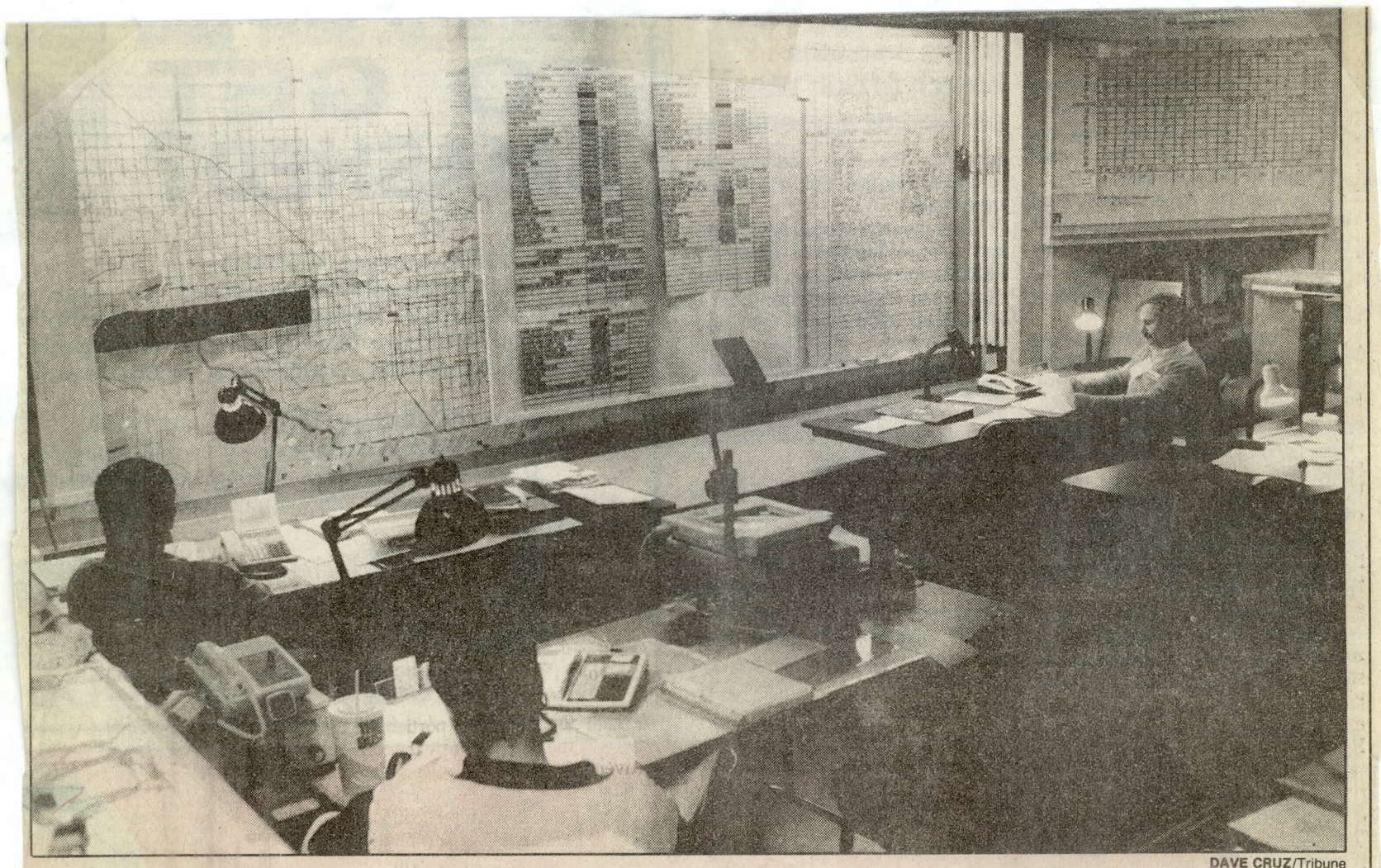
"It's really easy. Most people screw up by leaving their pictures stuck together," she said.

Gently separate any pictures that are stuck together. And gently rinse any mud off them. Lay them out face up on cloth or paper towels and pat them dry.

Go to a camera store and buy a book of blotter paper. Put the photographs between the pages and then put something heavy on the book, such as several telephone books, to prevent the photos from curling. They should dry within several days.

In some cases, the water and mud may have eroded some of the image. Or the photographs may be stuck to the glass in a frame. You can get a copy of the photo printed, or you can pay a lot of money and have it restored. Grant said a complete restoration begins at $200.

TEMPE TRIBUNE JAN 10, 1993



DAVE CRUZ/Tribune

Red Cross volunteer Lawn Griffiths, right, helps man the Maricopa County Emergency Operations Center in Phoenix.

# Emergency duty had a familiar ring

**By Lawn Griffiths**
Tribune writer

As conditions along the Salt and Verde rivers worsened Friday, the phone calls from the American Red Cross offices in Phoenix came as expected.

About 1 p.m. came the question, "Could you be on standby alert to roll if you were needed over the weekend as a disaster communications volunteer?"

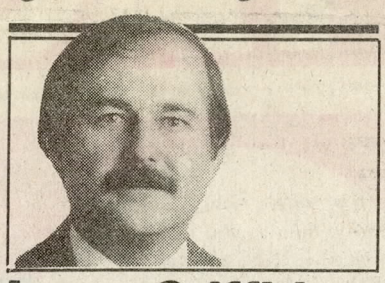
At 4 p.m. came another call: "Could you drop everything and get out to the Maricopa County Emergency Operations Center and pull a six-hour shift?"

I begged for another hour to finish out my *Tribune* news work and cleared it with editors. By 5:30 p.m., I reported for duty as a Red Cross volunteer for disaster communications at the center at 52nd Street and McDowell Road.

The operations center is built like a bunker into a low butte. The subterranean situation room, 20 feet below ground, conjures up images of the Strategic Air Command's famed nerve center beneath Omaha, Neb.

The Phoenix command post features an impressive display of aerial photographs, maps, charts, lists of bridges, street closures, water flow rates from dams, Palo Verde nuclear plant emergency data and more.

Computers, telephones, two-way radios, scanners, emergency manuals and hotline numbers



**Lawn Griffiths**
Tempe commentary

posted all about completed the picture of the operations center, surely one of the safest places I've ever been.

It was manned by representatives from a host of agencies, including Maricopa County Emergency Management, the state Department of Transportation, the Maricopa County Sheriff's Department, the county flood control district, the county health department, the Central Arizona Chapter of the American Red Cross, and others in the business of protecting lives and property.

My job was to be liaison between the county emergency hub and the Red Cross disaster relief professionals at the headquarters, the emergency shelters that had been set up (Westwood High School in Mesa, Littleton School in Cashion and a Seventh-day Adventist Church in Wickenburg), and the state Emergency Operations Center.

As a nine-year volunteer with the Central Arizona Chapter of the American Red Cross, I had been trained for "public affairs in disaster" — a nice match of my communications background with major human service agencies.

Throughout the evening, I followed the changing announcements on water releases from the dam, new bridge closings and a general "return to normal" after a roller coaster day at the center.

During my shift, I took calls with the far-more-seasoned disaster and preparedness experts at the center.

Many calls came from other public safety people seeking information updates or feeding us new information.

The public primarily wanted to know what lay ahead with the weather, water releases and road closings. They needed help finding a route via an open bridge. One caller was concerned about whether all the flooding would affect his fishing trip up north this weekend.

Few calls went without comment from the staff.

"That guy wanted to know where all the stuff is coming from," was one comment.

"That one said he wanted me to read him all the roads closed from Casa Grande to Flagstaff!"

One worker said his mother-in-law claimed the heavy rains were due to the fact that man had landed on the moon and, thus, the weather has never been the same.

Nah, the 1992 eruption of Mount Pinatubo in the Philippines is causing it, others reasoned.

After noting that people often stick it out after being advised to leave their homes because of floods, one seasoned sheriff's deputy concluded, "You can't get those bullheaded rednecks to move out of their places come hell or high water."

The emergency veterans termed the place "rumor central" because of repeated calls from the public for confirmation of what someone had told them.

At midevening came a report via a Yavapai County dispatcher that the Blue Ridge Dam had been swept away. The deft ADOT worker made a series of calls and ruled it another false report. "Another rumor is squelched," he said.

A retired state trooper called repeatedly to insist that Salt River Project wasn't leveling with the county about the water releases. SRP was reporting the flow was 124,000 cubic feet per second. "You're looking at 175,000 cfs," the man said, explaining that he's "seen a lot of water over the dam" in his day," so "somebody's lying to you."

Funny thing, but the range of calls and questions reminded me a lot of picking up the *Tribune* metro desk phone on any day to help people with their complaints and problems.

# State industries count losses

— **STATE,** *from page A1*

Thomas' lament was one of many heard from employers and workers last week as the rain stopped and flooding eased across the Valley and the rest of Arizona. The drying out has begun at last, and with it assessments of the damage wrought to business and industry by some of the worst flooding in more than a decade.

Construction, agriculture, recreation, tourism and mining are a few of the many segments of the economy affected by the heavy storms that have soaked the state since Christmas. Hardest hit may be the construction industry, with some projects now weeks behind and losing more ground daily.

"The rain could not have hit at a worse time," said Larry Huber, supervisor of a sprawling, 30-acre shopping-center project at Shea and Pima roads in Scottsdale.

"I'd say we're seven weeks behind now, and I'm really not sure when we'll be able to get back on the job."

## 'Everything is saturated'

The delay means that the 60 on-site employees who normally would be working long and hard on a sun-washed day such as Friday must stand by until conditions are dry and safe enough to resume.

"We're getting some sunshine now, and that's helping," said Huber as he gazed out over the job site, peppered with huge puddles and idle earth-movers.

"But everything is so saturated. If we get any more rain at all, we'll be back at ground zero."

Steve Pisarcik, vice president of operations at Kitchell Contractors Inc. of Arizona, which is managing the project, said 10 of 14 other projects managed by his firm in the Phoenix and Tucson areas also have been significantly delayed because of the rain.

"You can control a lot of things, but you can't control the weather," Pisarcik said. "Basically, it's the worst weather delays we've seen in the industry in 10 years."

## Other trades hit

Other construction-related industries suffered. John Drexler, owner of Ace Asphalt Co. in Phoenix, said that about two-thirds of his 175 employees have been laid off since mid-December because of construction stoppages and that his company has lost about $200,000.

"Fortunately, we're an established company and can hopefully withstand a loss like that," he said. "But a lot of companies can't."

In the agricultural sector, crisis management often was the rule during the past two weeks. Swollen rivers and streams washed away hundreds of acres of farmland and killed hundreds of cattle, and the rain heightened concern about pest problems next summer.

About 6,000 acres on farms in the Gila River Valley near Safford have been damaged by high water, said Mark Herrington, who farms at Solomon in Graham County.

"It's just gone," he said. "There's about a 20-foot dropoff. You couldn't ever find enough soil to build that back up."

## Impact on prices

Farmers with vegetable crops in Maricopa and Yuma counties hurriedly harvested what they could before the fields became too muddy to enter, said Arizona Farm Bureau President Kenny Evans, a Yuma farmer.

The effect: some lower prices now, some higher prices later. Lettuce, for example, fell to about $5 a carton from the teens, Evans said, "but the long-term effect is that there will be less produce available later, and consumers will pay more."

Mud is preventing many cotton growers from plowing the stubble from last year's crop into the soil. That practice, required by state regulation, removes the winter habitat of key insect pests and has helped growers reduce their use of pesticides, Evans said. Due to the deluge, however, the state Department of Agriculture has begun relaxing deadlines for the plow down.

"We expect to see substantial insect pressure," Evans said. "That is potentially the most damaging effect of this rain."

## Damage to feedlots

Flooding of cattle feedlots has caused about $500,000 in damage this month, Bas Aja, director of feeder affairs for the Arizona Cattlemen's Association, said in a preliminary estimate.

About 400 cows drowned, and about 50,000 had to be moved out of swamped feedlots. Flooding on the Santa Cruz River put some feeding yards in Pinal County under more than 3 feet of water Wednesday, Aja said.

Cattle from flooded yards were moved to dry feedlots, if possible, or were released on desert rangeland to feed on the grasses produced by the rains.

The rains have slowed production at Arizona copper mines by diluting leach solutions and flooding rail lines. Spokesmen for Arizona mines, which produce about 60 percent of all U.S.-mined copper, said the problems were significant but not severe enough to jeopardize sales contracts.

Mining companies also have had to cope with indirect effects on their operations. In Winkelman, Asarco Inc.'s water supply was tapped when flooding damaged the town's system, and equipment and employees were diverted to maintain dikes and roads at the mines.

## 'I left Seattle for this?'

In the Valley, several golf courses built along washes and in floodplains reported partial closings and lost revenues during what is the beginning of the state's peak tourism period.

"It got pretty bad up here, but we're in good shape now," a spokeswoman at The Boulders golf course in Carefree said.

At the Arizona Biltmore, golf-course superintendent Turner Reaney said that neither of the resort's two 18-hole courses closed but that he did hear some good-natured grousing from out-of-state visitors.

"One guy said, 'I left Seattle for this?' But they went ahead and played through," Reaney said. "They said they were used to the rain, and that at least it wasn't cold."

Resorts and hotels apparently weren't seriously affected.

"In most cases, I'd say visitors have non-refundable plane tickets, so they make the trip anyway and hope for the best," said Jim Austin, spokesman for the Pointe Hilton resorts.

Not all of the weather news was bad, however. The soaking will, for example, promote growth of grasses on livestock ranches all around the state, ranchers said.

"It can't do anything but good for us," said Ron Searle, a Cochise County rancher. "It'll bring out feed we haven't seen for years. It helps the plant species and the wildlife, too."

Neither is all lost for Drexler of Ace Asphalt.

"It's bad now, but all this rain means a lot of potholes and a lot of rocky roads," he said. "So I'm looking forward to a great spring."

# Firms, workers count losses, return to jobs

**By Dennis Love and Guy Webster**
The Arizona Republic

You know it's been raining a lot lately when people who live in the desert can't stop talking about how wonderful it is to see a few days of sunshine.

Hector Thomas, for one, certainly can't say enough about the recent break in the weather: He finally can go back to work.

"It is a blessing," Thomas, 24, said Friday as he paused from a landscaping job in the unusually green hills near the Mayo Clinic in north Scottsdale.

"This is the first day I've worked in two weeks. And the boss says, 'If you don't work, you don't get paid.' "

— *See* **STATE,** *page A13*

**RECREATION:** Sports activities affected by flooding, **A14**
**AID:** Lines form for flood assistance, **B1**

ARIZONA REPUBLIC JAN. 12, 1993

Suzanne Starr/The Arizona Republic

A truck in New River appears to conquer flooding on 36th Avenue, once a dirt road running in front of about 25 homes. Roaring floodwaters also wiped out Old Stage Coach Road, the southern portion of Coyote Pass, angering residents who have no route out now that both roads are gone.

# New River floods, strands 100

## Waters go over berm, turn 36th Avenue into another river

**By Carol Sowers**
The Arizona Republic

Jim Downes woke at 3 a.m. to an ugly roar — New River exploding through a dirt berm Friday, creating a frightening wall of floodwater that in seconds stranded 100 residents in the desert community north of Phoenix.

They remained cut off from the rest of their community Monday, at the mercy of floodwaters that had raced across the desert "scouring out a whole new river" — 36th Avenue.

The avenue once was a dirt road running in front of about 25 homes in New River, an area north of New River Road and east of Interstate 17.

On Monday, it was a river of water strewn with huge boulders. Mailboxes along the road's edge appeared in danger of tumbling in, and driveways looked like rock quarries. Corrals had vanished.

Residents say that at least their homes were spared.

No one seemed to realize that New River was cut off until residents called Maricopa County Search and Rescue workers, who on Sunday sloshed through knee-high water and dodged boulders to bring in food and diapers donated by the Salvation Army.

"They were wonderful," resident Sparky O'Neill said.

But the roaring water also wiped out Old Stage Coach Road, the southern portion of Coyote Pass, angering residents who have no route out, now that both roads are gone.

Downes and other residents blame the flooding on Maricopa County for failing to reinforce the berm. They say that allowed the water to wipe out their only two roads, destroy their yards and carry away their corrals.

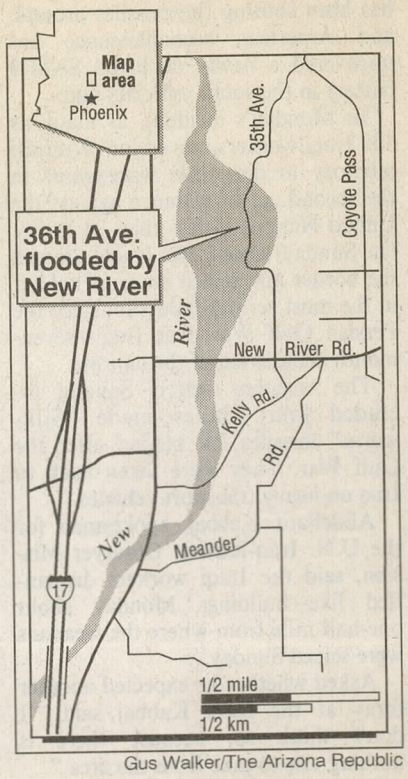
County construction workers who tried to repair Old Stage Coach Road, the only remaining road, on Sunday "turned it into an impassable mud bog."

Larry Lambertus, who lives on the eastern side of 36th Avenue near Old Stage Coach Road, said he had used construction equipment to make a road for residents to get in and out of the area. Then Sunday, county workers using a grader and a loader became stuck in the mud and ruined it.

"When they left they just turned it into a mud bog," Lambertus said. "Now, no one can get through."

Kent Hamme, Maricopa County's assistant engineer for highway operations, acknowledged that his workers "indeed probably made it worse when they pulled off."

"There was just nothing they could do in the rain," he said. He denied, however, that the county is responsible for the break in the berm and the flooding of the area's only two roads.




Gus Walker/The Arizona Republic

"There is almost nothing we can do in the lower parts of that channel," he said. "The river will meander this direction and that in the floodplain."

County road workers are scheduled to repair Old Stage Coach Road today. Hamme said the county has as many as 100 flood-damaged roads to repair.

Fixing Old Stage Coach Road will not help the Downeses or four other families who live west of 36th Avenue. With an impassable river in front of them and New River raging behind them, they live on what resident Dick McKeon calls "a new island.".

Downes looked at the boulders and mud that wiped out his once-green yard, dotted with park benches and a hammock.

"It has taken me seven years to put the corrals up and get the yard fixed," he said. "And in one day it is all gone."

Downes said he also is worried about the river that has gouged out a 6-foot strip of the bank behind his house, with more water predicted.

A storm is expected across much of Arizona today and Wednesday, perhaps dumping another inch to an inch and a half of rain in the deserts and more snow in the mountains.

"I don't know what will happen if we get more rain," Downes said.

Az Republic 1-12-93

# Release was unavoidable, officials say

## SRP unwilling to risk Valley's water supply

**By Phil Boas**
Tribune writer

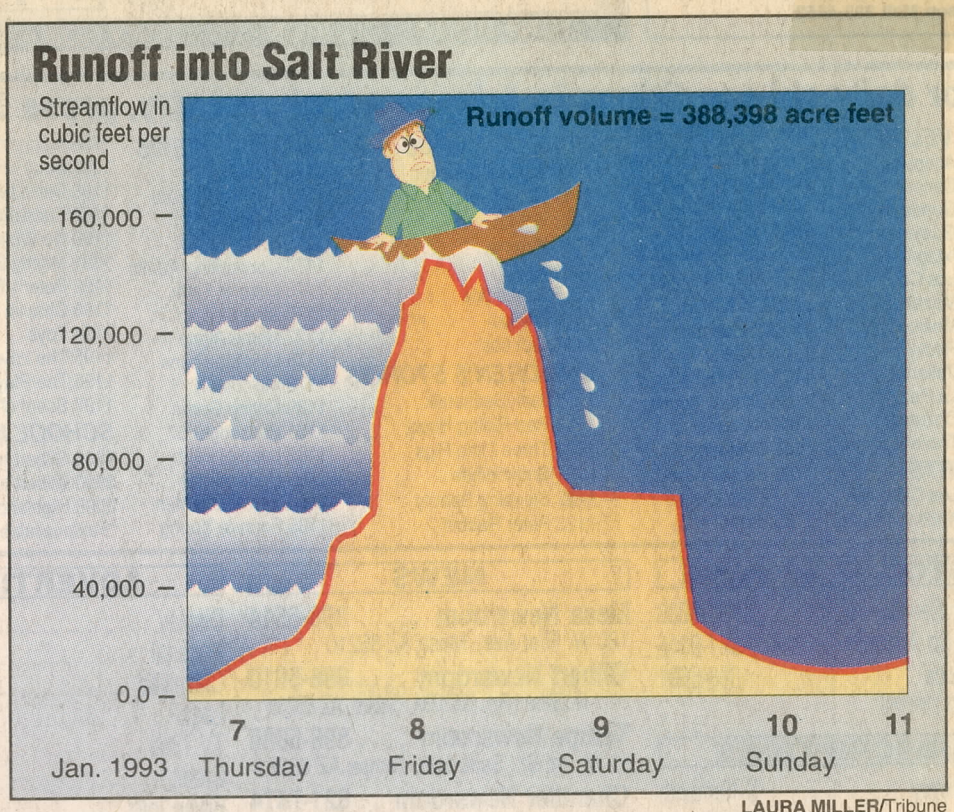
Salt River Project managers did not want to open the spillways on their dams and send a torrent racing toward metropolitan Phoenix last week, but Mother Nature forced their hand.

"We want the public to know there was a rhyme and a reason for releasing so much water," SRP spokesman John Egan said.

A week ago Thursday, SRP forecasters alerted their hydrologists and engineers that two storm fronts were about to collide over Arizona and test the Valley's water-delivery system.

In haste, they warned Tempe that flows as high 35,000 cubic feet per second would be heading down the Salt the next day and into the steel girders supporting the second Mill Avenue Bridge.

An onrush of 262,000 gallons per second (enough to fill 10 swimming pools) was




LAURA MILLER/Tribune

**IT'S A RECORD:** 12 days of steady rain surpass 1920s mark / **A8**

**CACTUS BLOAT:** Rains overloading saguaros with water / **B1**

expected to knock over scaffolding and bring down the bridge's newly poured arches.

It didn't.

When 35,000 cfs hit the next day, the partially completed span was intact, Tempe Deputy City Manager Gary Brown said.

Problem was, the storm wasn't finished. Earlier that morning SRP had told the

Please see **SRP / A8**

# SRP

**From page A1**

city to brace for a crush of water four times greater than its first estimates. "Our problem is that the quality of information gets better the closer the storm gets," Egan explained.

What was originally expected to be a flow equivalent to 10 swimming pools every second turned into one of 40 Friday night. The bridge collapsed. Upstream, the river tore away 140,000 cubic yards of garbage from the Tri-City Landfill north of Mesa.

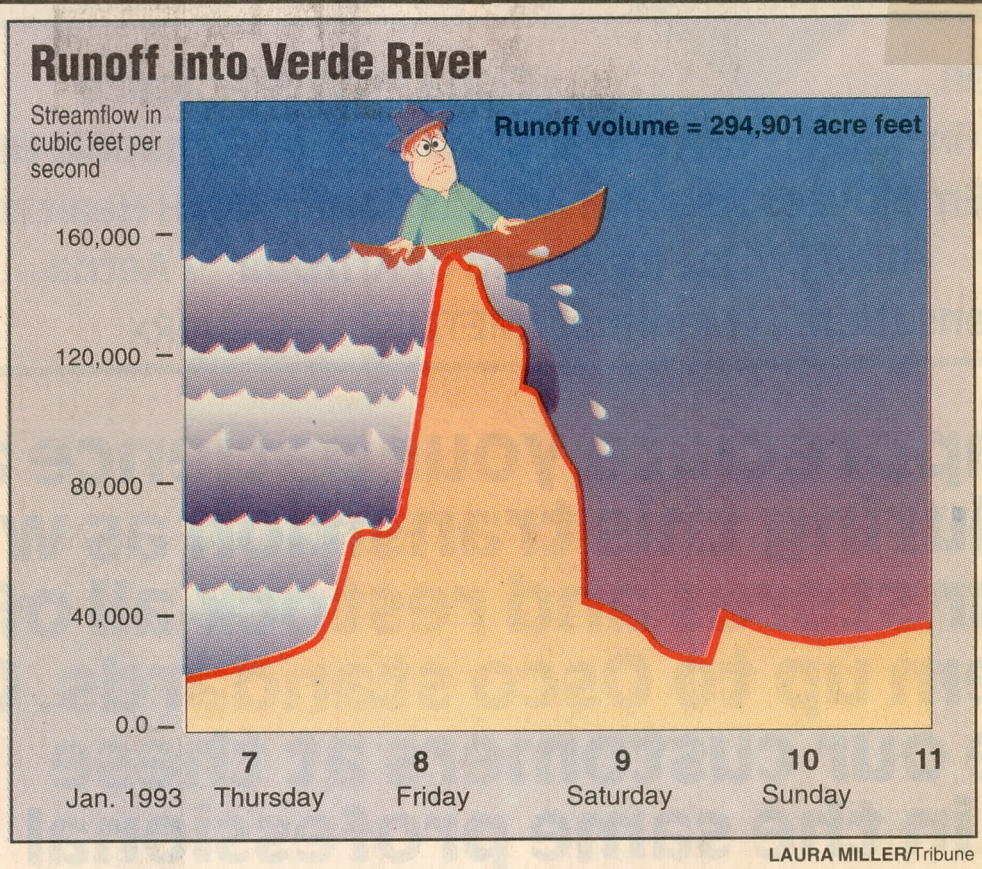
Could the destruction have been averted?

Technically, yes, according to SRP officials. But that would have taken clairvoyance and a gamble with the Valley's water supply.

To pull the trick, SRP and National Weather Service meteorologists who work at SRP's Phoenix headquarters would have had to forecast last week's storm nearly 30 days in advance.

That's about how long it would take to reduce water levels in reservoirs to accommodate the rainfall of Jan. 7-9, Egan said. "If we had wanted to slope the releases (to avoid damaging the bridge and landfill), we would have had to start in mid-December."

Not only is such forecasting impossible, but SRP would be releasing water at its peril.




LAURA MILLER/Tribune

Had no rain come to replenish the release, the Valley water supply would have been cut short, Egan said. "If we had released all that water and the storm had broken up, we would have looked pretty silly. Our responsibility is to make sure the Valley has enough water for the whole year."

To understand why SRP could not save the second Mill Avenue bridge or the landfill, the magnitude of last week's storm has to be comprehended.

Each year, the Valley consumes about 1 million acre-feet of water. Each acre-foot equals 325,850 gallons, or enough to support a family of four for a year.

Over Jan. 7-10 about 800,000 acre-feet of rain accumulated in SRP's 13,000-square-mile watershed, Egan said. "We got almost a year's worth of water in three days. That's an enormous amount of water in a short amount of time."

Experts equipped with computers and phones at SRP's Emergency Operation Center had plenty on their minds Jan. 8 as they calculated how much to release from six dams on the Verde and Salt rivers.

Flotation monitors on the rivers were transmitting radio signals to mountaintop receivers and firing down a storm of data to the control center in Phoenix.

The information was unsettling on that morning, as the storm moved east with a fury. As much as 8 inches of rain were falling on parts of the watershed feeding the Verde, Egan said.

The rising water levels were translating into a pitched ascent on the control center tracking charts. By 9 a.m., a red line marking the increase had raced off the chart and hit a historic high for the Verde system at 140,000 cfs, Egan said.

Some monitors on the Verde quit after water levels rose above their flotation meter, he said. "It buried the meter. We'd never seen anything like it."

There was no panic in the operation center, but the mood was tense, he said. "People were saying this is the job we get paid to do. Let's do it."

As the storm moved east, the Verde water level dropped. The Salt began to rise. Friday night, 135,000 cfs were flowing into the Salt.

As flows peaked, decisions at the command center were basic, said SRP senior hydrologist Charlie Ester. There was no concern about balancing downstream damage with maintaining next year's water supply.

"When you get into an event like this, your primary focus is the safety of the dams," he said. None of the dams in the system were threatened by the storm because SRP was making the necessary releases to maintain a wide margin of safety.

The water level at Roosevelt Lake — the largest reservoir along the Salt — peaked at 2,127 feet, about 18 feet below the top of Roosevelt Dam. Another 9 feet and the water level would have reached the absolute maximum for storage and usage, SRP spokeswoman Teri Morris said.

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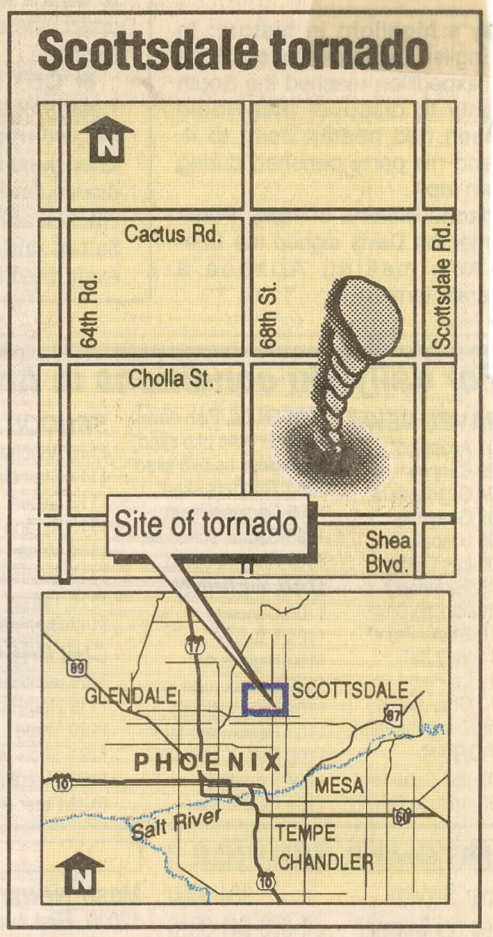
CARLOS SALCEDO/Tribune

**Top: Dee Holcomb and her son, Peter, stand outside their damaged home in Scottsdale on Sunday. The tornado carried a metal shack in front of their home. Above: The roof of a home was ripped off as the tornado moved through the Scottsdale neighborhood.**




L.JACKSON / Tribune

# 13 Scottsdale homes look 'like a bomb dropped' after tornado

**By Kathy Nixon and Ruthanne Gilbert**
Tribune writers

Valley skies unleashed more twisted weather Sunday afternoon as a tornado spun out of the clouds and damaged 13 homes in Scottsdale.

Falcon Field officials spotted a second funnel whirling over Chandler. No damage was reported.

Some Scottsdale residents wish they had been so lucky. The twister that hit and ravaged neighborhoods near 64th Street and Cholla was painfully reminiscent of a 1972 tornado that struck the same area and inflicted similar destruction, said Rural/Metro fire officials.

Sunday's funnel descended north of Shea Boulevard at about 12:40 p.m. and within minutes stripped a home of its roof, plucked large cactuses from the ground and relocated storage sheds. Remarkably, there were no serious injuries.

Four homes were seriously damaged, said Matt Phillips, spokesman for Rural/Metro Fire Department. "It looks like a bomb dropped."

Jen Jacques was sitting on the floor wrapping birthday presents. Oblivious to the havoc brewing outside, she just happened to be bent under her ironing board.

Suddenly, her roof caved in as a tornado ripped most of it off her home in the 7800 block of Desert Cove. She sat under the ironing board unhurt. But she was surrounded by drywall and other materials that once made up the roof of the Jacques home, said her son, Bill Jacques.

"The only warning was the dog hid under a table that he never goes near," the son said.

Please see **Tornado / A4**

CARLOS SALCEDO/Tribune

**Above: Dan Wilkens helps a friend remove a tree that was knocked down by the Scottsdale tornado. Right: Six-year-old Danny Holcomb doesn't let a downed fence at his family's home get in the way of a little post-tornado fun.**

## Tornado

**From page A1**

"Dad got a scratch on the head as he jumped under the computer table."

Joan Spain had a better vantage. She saw the destruction.

"It looked like 50 million dust devils," she said. "There was stuff flying all over the air."

Her husband ran to help their wheelchair-bound neighbor, Bill Norred. The fallen debris left Norred unable to get out of his home.

"Debris was all around him," Joan Spain said. "He wasn't hurt, but he was as white as a sheet."

Capt. Tim Cooper, a Rural/Metro firefighter, could not believe his eyes. He was at 64th Street and Shea Boulevard as he returned from a routine call when he saw something weird.

"I noticed some strange clouds. They were real black with solid white in them," Cooper said. "Then little peaks kept coming out of them (the clouds). One kept getting bigger and bigger. We could see it swirl. And then we saw debris going up."

Cooper called dispatch on a channel that is not normally used. He wanted to report that he thought he was looking at a tornado. But since he wasn't sure, he did not want the call overheard.

A few seconds later, the emergency number was flooded with reports.

Stacy Aguirre was visiting her mother, who lives near the Jacques family, when the tornado struck.

"There was a big pop. I thought it was lightning. Then it started to roar. I yelled, 'Get the kids away from the window.' It roared, making a horrible noise."

Mary Ulch, a spokesperson for the American Red Cross, said survey teams and an emergency reserve vehicle were canvassing the tornado area late Sunday afternoon.

TEMPE TRIBUNE JAN. 13, 1993

TORU KAWANA/Tribune

**The asphalt at Mill Avenue and the Salt River lies broken up and tilted, caused by the rushing current of the swollen river during the past week. More rain is expected today as another front moves into the area.**

# Loss of bridge fails to dampen spirits

**Doug MacEachern**
Commentary

A river ran under it. A lot of river ran under it. Now, a river runs through it.

Massive chunks of the new, under-construction Tempe bridge came toppling down Friday under the weight of surging floodwaters — waters that, even now, plow through the normally dry Salt River riverbed.

For cheap, weather-related thrills, Friday's events demonstrate that it is hard to beat a collapsing bridge.

For a few perilous moments Friday, I was afraid TV reporter Bill Blannon of KPNX-TV (Channel 12) was going to tumble over the embankment as he described the crashing scene. That boy was excited. And he wasn't alone.

Hundreds of onlookers lined the old Tempe bridge, just west of the new bridge, cheering as the first spans splashed down into the chocolate spew. As natural disasters go, the demise of the new Tempe bridge was like the final two minutes of a tight Suns game. Everybody was leaping up, tossing popcorn in the air.

The calamitous end of the northern and midriver spans of the Tempe bridge offered us the most spectacular visual images of the effects of big-water rain on Arizona. Those effects weren't pretty.

Spectacular and awe-inspiring, yes. But not pretty.

Nor were all those special effects all that expensive, as it turns out.

In fact, you could make a case that the awesome flow of water that took out the new Tempe bridge actually did us all a favor.

The torrent of big muddy has demonstrated just how valuable a Valleywide Rio Salado project could have been, or may still be.

The $6.5 million bridge, intended for northbound traffic out of Tempe into Phoenix, was to be finished by midsummer. Now, the bridge will cost about $7.5 million, and it should be finished sometime next fall, depending on when the Salt River Project people decide to turn off the tap upstream. For all the sensational effects of

Please see **Bridge / B4**

# Bridge

From page B1

ripping timber and grating, groaning steel beams, it seemed like the damage would be a lot worse than it was.

"Basically, it was form-work that went down," said Tempe public works director Jim Jones.

"It was a lot of what they call 'false-work' — plywood forms and steel supports for the concrete that they were planning to pour."

Surveying the damage to his precious new bridge Tuesday morning, Jones does not appear terribly crestfallen. Things could be better, he admits, but, then, things could have been a lot worse.

"I talked to the contractor today," Jones said. "He said that if this weather had held off for another 45 days, we would have been all right. We would have had the concrete poured and it would have held up."

Although the city will have "some expense" as a result of the bridge collapse, most of the losses will be paid by the bridge-builder's insurance.

That builder, Kraemer & Sons of Minneapolis, already has started picking up the pieces and starting work on the north bank.

"They're terribly discouraged by all this," Jones said. "But I thought they had a pretty upbeat attitude about it when I talked to them this morning."

We are looking out over the precisely carved channel that ushers floodwaters through Tempe's section of the Salt River bed. The churning water is going exactly where the builders of the channel said they wanted it to go.

"That's the good part of all this," said Jones. "The channelization worked."

In November 1987, voters across the Valley overwhelmingly turned down a multibillion-dollar proposal to clean up the Salt River bed, dig out a straight channel in the middle of it, and build big resorts and shopping centers on its banks. Voters killed the idea 2 to 1.

But in 1990 Tempe decided to go Rio Salado alone. Now, just a couple years after starting the project, the raging waters of a flooded Salt River are demonstrating that the channel portion of the project works just great. It even contains flood waters that are powerful enough to tear down a bridge.

Nature demands that water must seek the path of least resistance. When that water is motoring along at 124,000 cubic feet per second, virtually everything surrenders. As invading Martian armies often note, resistance is futile.

So Tempe's Rio Salado channel does not resist the water, it ushers it along concrete-reinforced banks. The floodwaters may be chewing up the river banks elsewhere, but, when the water subsides in the Tempe channel, things will be pretty much the same as before.

Except for the new Tempe bridge, that is.

THE PHOENIX GAZETTE

METRO

SECTION B

TUESDAY, FEBRUARY 23, 1993

PHOENIX GAZETTE
FEB. 23, 1993

# Farmers move out as Gila rises

## Flood sparks fears of financial ruin

By Mike Padgett
THE PHOENIX GAZETTE

WELLTON — Farmers along the Gila River east of Yuma are too busy getting out of nature's way to think about its impact on their lives.

Some of their land is underwater or washing away in record floods.

They know that they or their neighbors might be out of business next year.

For the farmers who hang on, it could take months to repair flood-damaged land and irrigation systems.

"This has the potential of leaving bankrupt a number of the people in this area who have been long-established farmers with substantial means," Wellton farmer Marvin Marlatt said Monday.

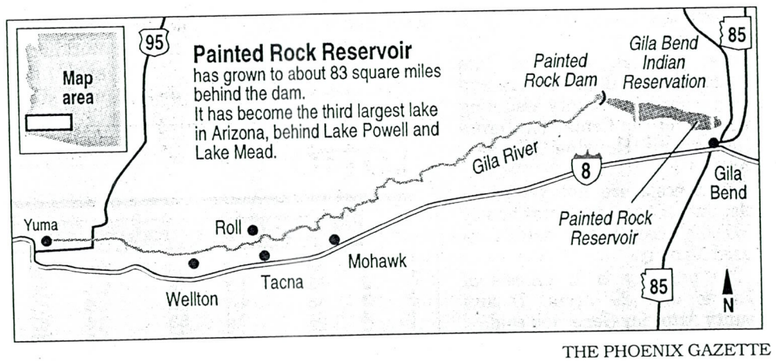
He is one of many farmers in Wellton, Tacna, Roll and Dome who are fighting the river.

Early Sunday, for the first time since 1959, when the U.S. Army Corps of Engineers built the Painted Rock Dam, water behind the dam started flowing over an emergency spillway.

The dam, on the Gila River west of Gila Bend, is a flood-control structure. It holds runoff from the Verde and Salt rivers, which merge with the Gila in southwest Phoenix.

Because of high runoff from abnormally heavy rains this year, the Gila's flow of 12,500 cubic feet per second from the dam threatens many farms.

That flow could increase later this week to 30,000 to 50,000 cfs because of runoff from a massive weekend storm that flooded parts of Flagstaff, Sedona and Cottonwood, said Maj. Robert van der Like at the Corps' Phoenix office.




THE PHOENIX GAZETTE

More moisture — rain showers in lower elevations and snow in the mountains — is expected to move into the state tonight and Wednesday, with partial clearing expected later in the day Wednesday.

Van der Like said that because of runoff in coming weeks from melting snows, the Gila is expected to have a flow of about 20,000 cfs through March.

The Gila is expected to flood all bridges in the farming area east of Yuma this week, including a low-lying approach to the U.S. 95 bridge from Interstate 8 north to Quartzsite, he said.

If the road is flooded, motorists would have to cross into California, turn north onto a two-lane paved road and cross back into Arizona to reach Quartzsite, said Henry Green of Yuma County's emergency services office.

Farmers are reinforcing levees and dikes on farms bordering the river. Some are moving families, livestock and equipment to higher ground.

"We're going to lose about 850 acres out of 1,200," said Robert Nickerson, a third-generation Wellton farmer.

Nickerson grows alfalfa, wheat, lettuce, and broccoli and cauliflower.

"I don't think there's much chance of getting out of this without having a severe loss," said Marlatt, a Wellton farmer since 1980.

"I'm evacuating my house this week. Moving into a place I've rented in Tacna."

Marlatt said he expects damage to his wheat, onion- and radish-seed crops, and alfalfa.

Nickerson said he's too busy working to save his farm to think about floodwaters stealing land worked by his family since 1958.

# Rainy days not over yet

MELANIE ROOK D'ANNA/Tribune

Meagan Buechner, left, and her sister Robin of Mesa watch the bloated Salt River near Mill Avenue on Saturday.

TEMPE TRIBUNE
JAN 10, 1993 (?)

## Threat to bridge recedes with flooding

By Bill Davis
Tribune writer

Subsiding floodwaters on the Salt River Saturday eased fears of further damage to the second Mill Avenue Bridge.

Tempe officials had been worried about the unfinished bridge ever since late Thursday when they were told that SRP would be releasing unusually large flows out of the Verde and Salt River reservoir systems because of heavy rains. Winter runoff Friday swept away four of the uncompleted bridge's nine spans, along with construction shoring, scaffolding and tons of iron reinforcing rods.

The water-mauled structure, however, has turned out to be a popular attraction for Valley sightseers. Thousands of onlookers spent Saturday leaning over the rails of the original Mill Avenue Bridge just to the west of the downed bridge.

"This is part of history. This is something I wanted my kids to see," said James Towle of Chandler who had brought his three children out to witness the river running and the wrecked bridge.

Business along Mill Avenue was running almost as swiftly as the river.

"My business is up 25-30 percent over a usual weekend day," said Charlie Mitchell, owner of Kelly's Coffee Factory. "I wish I had the time to invent a couple new drinks. Something like 'Collapsing Cappucino' might go over big about now."

The river was also a big attraction in Mesa Saturday.

Cars lined Country Club Drive near the Salt River as families stopped and looked at the normally dry riverbed filled with raging water.

"It's incredible," said Tommi Hargett. "I'm from a place where this is natural, but this isn't natural," she said.

Hargett came with her friend Tracy Knudsen and her two children, Joshua, 6 and Niki, 8.

"The kids were afraid their school was going to wash away, so we brought them here to see what it looked like," Knudsen said.

Nearby, 8-year-old Meagan Buechner was tossing rocks into the garbage-filled

Please see **Bridge / A5**

## Bridge

From page A1

river.

"It stinks," she said.

Her father, Bill, said he had brought his children to see the river.

"It's pretty impressive and hard to believe there is so much water," he said. "I drive this way to work and thought I would let the kids see what Mother Nature is capable of."

Stan Barnes, a former state representative, brought his 2-year-old son Stan III.

"I think it's an Arizona thing," he said of people's fascination for a running river.

In Tempe, the $6.6 million new Mill Avenue bridge had been scheduled for completion this summer. That deadline has been pushed back at least into the the autumn, said Jim Jones, the city's director of public works. Flood insurance taken out by construction contractor Edward Kraemer and Sons should cover rebuilding costs, he said.

**'It's pretty impressive and hard to believe there is so much water. I drive this way to work and thought I would let the kids see what Mother Nature is capable of.'**

— Bill Buechner

Engineers won't be able to assess damages until the water recedes, Jones said, but it now appears that the four spans that had already been poured with concrete and completed — the four southernmost spans still standing — were not damaged by the flooding.

A fifth span near the center of the river channel, which had been nearly finished, was toppled. Its poured concrete arches and decking now lie on the river bottom, but pose no danger to the piers on the original Mill Avenue Bridge, Jones said.

"We don't think it's going anywhere until we drag it out of there," Jones said.

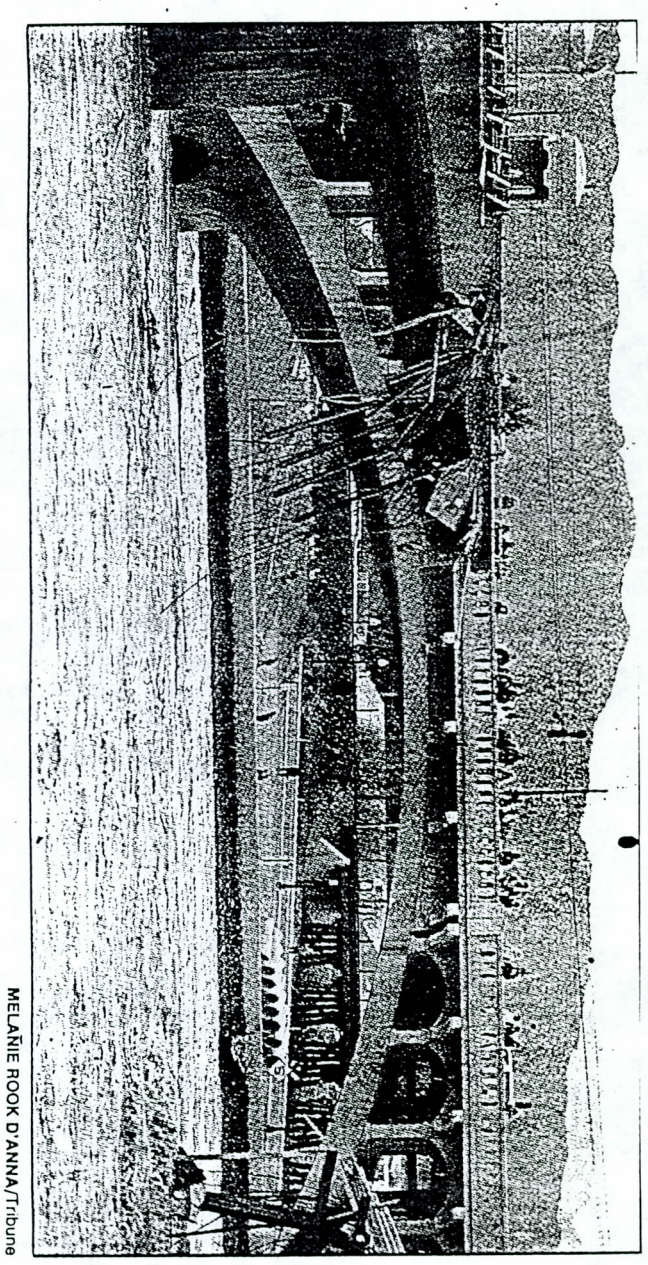
The other spans the flood swept away hadn't yet been poured with concrete. All that was lost with those were the plywood forms, iron reinforcing rods and steel I-beam shoring, Jones said.

The city's Rio Salado Project and 100-year flood channel cutting through the center of the Salt River weren't affected, he said.

The highest rate at which the river flowed on Friday was 150,000 cubic feet per second. For the rest of the weekend the rate isn't expected to be more than 100,000 cubic feet per second, said Scott Harelson, SRP spokesman.

The most water ever to pass through the river was about 200,000 cfs, during flooding in 1980, Jones said. The levees banking the river channel in Tempe are designed to contain flows of 250,000 cfs.

*Tribune writer Ruthanne Gilbert contributed to this report.*



MELANIE ROOK D'ANNA/Tribune

Curious onlookers line up to watch the river run under the remains of the new Mill Avenue Bridge.

THE PHOENIX GAZETTE

METRO

SECTION B

MONDAY, FEBRUARY 15, 1993

▶ LOTTERY / B2
▶ VALLEY BRIEFS / B2

# Heavy rains replenishing water supply

## Recent storms are godsend for Arizona, experts say

By Mike Padgett
THE PHOENIX GAZETTE

Noah would approve.

Although it hasn't rained for 40 days and 40 nights, most of Arizona received abnormally high rain totals in the 40-odd days since Jan. 1.

Officials say the heavy rainfall across Arizona is a godsend, filling reservoirs and recharging the ground-water supplies. They say the predicted flow of some of the state's rivers for the rest of the year are so high, an ark would be helpful.

"Honest to God, that's the truth," said Ron Jones, water-supply specialist at the U.S. Soil Conservation Service's Phoenix office.

And though the heavy rains have taken a breather, Jones and others said the rains are only part of the story.

The rest of the story is runoff from heavy snows, which haven't started melting yet. Hydrologists still are measuring the snows and their water content.

> "This is very unusual that we have this much water behind this (Painted Rock) dam. This is the most we've had since the dam was constructed in 1963."
>
> **Maj. Robert Vanderlik**
> District deputy commander
> U.S. Army Corps of Engineers

Over the weekend, a mild subtropical Pacific system cruised lazily across the Southwest, again saturating many parts of Arizona.

The weather system originated off Baja California and weakened as it hit the West Coast.

On Sunday, downtown Phoenix received 0.37 of an inch of rain and Sky Harbor International Airport received 0.26 of an inch, said meteorologist Hector Vasquez at the National Weather Service. Through Sunday, Phoenix has received 6.35 inches of rain since Jan. 1.

Tucson received 0.36 of an inch and Flagstaff received two inches of snow, or 0.21 of an inch of precipitation.

Although partly cloudy skies are forecast for today and Tuesday, a new cold front is headed for Arizona.

"There's a good chance for rain Thursday and into the weekend, and it could be the start of a new storm system," Vasquez said.

At Salt River Project, spokeswoman Sandy Leander said water was flowing over the Granite Reef Diversion Dam at 19,000 cubic feet per second.

Downstream on the Salt, the water

See ■ WEATHER, Page B3

Randy Reid / THE PHOENIX GAZETTE

**A woman strolls along Arizona State University's Palm Walk Sunday. More showers are possible later this week.**

## ■ WEATHER

nerges with runoff from the Gila and Agua Fria rivers, and flows to Painted Rock Dam, a flood-control structure completed 30 years ago by the U.S. Army Corps of Engineers.

The dam is about 20 miles west of Gila Bend.

"This is very unusual that we have this much water behind this dam," said Maj. Robert Vanderlik, deputy commander for the U.S. Army Corps of Engineers' Los Angeles district.

"This is the most we've had since the dam was constructed in 1963."

He said workers are releasing water from the reservoir at the rate of 12,500 cfs. If the reservoir continues to fill with the combined runoff from the Salt, Agua Fria and Gila rivers, that rate could be increased to a maximum of 22,500 cfs, Vanderlik said.

The flow of 12,500 cfs is threatening farmland near the communities of Wellton and Tacna, east of Yuma. Residents are working to prevent the water from damaging the crops.

"It's a very difficult situation," Vanderlik said. "We want to release as much as we can in the Gila River but without causing extensive damage downstream. We're working with county officials down there to keep as much (water) coming out without causing substantial damage."

In other parts of Arizona, watersheds that drain into the state's rivers are flowing several times higher than the monthly average. According to the U.S. Soil Conservation Service's January rain and snow reports:

- The Salt River basin received 401 percent of average.
- The Verde River basin received 209 percent of average.
- The San Francisco-Upper Gila River basin received 364 percent of average.

PHOENIX GAZETTE
FEB. 15, 1993

# Santa Cruz River Breaks into CAP Canal

## Portion of I-8 Detoured to 84

■ See photo, page 2
■ Groundwater levels rise 20 feet, page 2

Staff Reports

The Santa Cruz River has broken into the Central Arizona Project canal north of ChuiChu and is pouring millions of gallons of floodwater into the system.

Brian Betcher, district engineer for the Maricopa-Stanfield Irrigation and Drainage District, said the floodwater began flowing into the Santa Rosa Canal about 8:30 or 9 p.m. Tuesday. The flooding continued to worsen during the night, he said.

Floodwaters began to peak about 10 p.m. Betcher said. The district expects peak flows to continue through this morning.

The canal is taking on floodwater in several places for about six miles west from Thornton Road, he said. The water in the canals then is spilling into washes and the district staff is trying to move as much as possible into spillways and laterals, including Vekol Wash.

Water is flowing over the banks at the Santa Cruz Wash and the Greene's Wash. It's heading toward the Interstate 8 and threatening to flood the Bianco farm.

Officials can't assess the damages to the system until the water recedes, he said. But Betcher estimates that they may be "substantial."

There was another breech of the canal sometime early this morning, Betcher added, and the canal is dumping uncontrolled water into the Santa Rosa Wash.

The Department of Public Safety said the eastbound lane of I-8 between Thornton Road and State Route 84 has been closed since about 10 p.m. Tuesday. Eastbound traffic has been detoured to State Route 84.

Maricopa Schools are closed today, school officials said, because school buses cannot cross Vekol Wash to pick up students.

Stanfield Elementary School is closed today because it is being used as an Red Cross evacuation center for residents of the Maricopa/Stanfield area.

Pinal County officials said evacuation centers have been set up at Santa Rosa Boarding School for residents of ChuiChu and at Santa Cruz High School for residents of Red Rock, Pi-

— Canal, page 3

# *Bush Declares Flood Disaster*

## Missing Woman Found in Gila; BIA Policeman Unaccounted For

By The Associated Press

After 14 consecutive days of rain, President Bush has declared Arizona a federal disaster area — putting into motion the procedure to get aid to hundreds of flood victims around the state.

Bush's declaration Tuesday came as a response to a request by Arizona Gov. Fife Symington for federal flood relief for the state.

Under the declaration, the Federal Emergency Management Agency will identify which counties are eligible for funds such as low-interest loans for homeowners and businesses.

It also would free funds for temporary housing and for governments to repair roads, bridges and other structures damaged by floods.

Statewide damage from two weeks of flooding is estimated at $56 million including $24 million to public facilities, $18 million to Indian property and $5.5 million to homes.

Flows from the dam have swamped a neighborhood in Winkelman, 20 miles downstream. About 55 houses were flooded up to their roofs, leaving some 300 residents of an area called "The Flats" homeless.

Water flowing over the spillways at Coolidge Dam into the Gila was increased from 20,000 cubic feet per second to 25,319 cfs at midnight Tuesday, said officials with the Bureau of Indian Affairs, which operates the 62-year-old dam.

A natural gas pipeline exploded Tuesday night in the middle of the flooded Gila River near the Gillespie Dam outside of Arlington.

Maricopa County Sheriff's Department spokesman Jay Ellison said the El Paso Natural Gas pipeline was underwater and leaking gas, which was bubbling up through the floodwaters and burning on top of the water.

Ellison said the explosion did no damage and caused no injuries because it occurred in an unpopulated area.

Meanwhile, releases from the Granite Reef Diversion Dam above Phoenix flowed at 70,000 cfs Tuesday, said officials for the Salt River Project, which operates the dam.

The SRP had earlier worried that releases could reach a record 200,000 cfs — the design limit of many of the bridges across the river.

The death toll from the flooding rose to two Tuesday when Pinal County officials recovered the body of a 39-year-old woman from a pickup truck stuck in the overflowing Gila river near Sacaton since Saturday.

Diane Eckert, of Chandler, was a passenger in the truck that sank after the driver tried to get across U.S. Highway 587, authorities said.

A 22-year-old Prescott man was killed Monday when his car spun out on sleet-covered Highway 93 north of Kingman.

Authorities still were searching for a BIA policeman who disappeared Sunday while checking road flooding on the Gila River Indian River Reservation. He is believed to have drowned in the river.

Clear weather finally entered Arizona on Tuesday and the weather service said it would remain in the state at least through this weekend.

As of Tuesday, January rainfall totaled 5.22 inches — far above the previous record for the month of 3.67 inches in 1897 and well above the average of 0.41.

TRI-VALLEY DISPATCH
CASA GRANDE, AZ
JAN. 20, 1993

# Canal System

Continued from page 1

cacho, Eloy, Casa Grande West and Desert Carmel.

Evacuation centers also have been set up in the Gila River Indian Community's six districts.

The Central Arizona Irrigation and Drainage District reports that water from the Santa Cruz has broken out of Greene's Canal in several places.

Irrigation superintendent Walt Schnoor said the largest breech on Greene's Canal has allowed water to flow across Sunland Gin Road. On Tuesday, the road was covered from Greene's Wash crossing to Pretzer Road.

Schnoor said a preliminary estimate of district damage is $50,000 to $75,000 — not including whatever has happened to the lateral that runs along Greene Reservoir Road and Sunland Gin Road.

Ed McGovock, assistant district chief for the U.S. Geological Survey, said this morning the best indicators show that no new big peak is coming down the Santa Cruz.

The river at Tucson yesterday afternoon was flowing at about 30,000 cubic feet per second, he said, but observers in Marana estimated that it was higher downstream.

"U.S.G.S. is looking at what can be done to cooperate with flood-control agencies and flood-warning agencies to improve the flood-warning network with additional flood-warning stations," he said.

Pinal County officials announced this morning that flooding conditions will continue along the Gila River Basin, Santa Cruz, Santa Rosa and Greene's Wash.

"Residents along the Gila River Basin should expect flows to exceed the flows of last week," said Teresa Retterbush, acting assistant county manager for public works.

In addition to the 26,000 cfs spilling over the Coolidge Dam this morning, the Aravaipa and San Pedro rivers are flowing into the Gila River.

The Department of the Interior has estimated that discharges from the dam will peak at 35,000 cfs and continue to flow for an extended period of time.

Residents in immediate danger have been notified by the sheriff's office that evacuation is necessary, she said. But everyone in the Gila River Basin should remain cautious, she said, and be watchful of the elevation of the Gila River.

Residents along the Santa Cruz, Santa Rosa and Greene's Wash should expect flooding conditions for the next several days, she said.

Residents of Maricopa, Stanfield, Casa Grande West and Desert Carmel and low-lying area have been notified that they may want to make evacuation plans, she said.

Sandbags are available a the Arizona City Fire Station, the sheriff's office substations in Maricopa and Stanfield, the county highway yard in Casa Grande and at the city of Eloy.

Preliminary estimates of flood damage are at 1.8 million to Pinal County roads and bridges, she said.

# Valley gets break in rain, flooding

Michael Chow / THE PHOENIX GAZETTE

**Trash washed out of the Tri-City Landfill covers the north bank of the Salt River at Hayden Road. Experts fear more trash will be left to rot in the riverbed when the water recedes.**

## Water releases cut back despite state's drenching

By Susan Herold
THE PHOENIX GAZETTE

The storms that have wreaked havoc on Arizona are far from over, but forecasters say with any luck, a repeat of last week's flooding is not expected soon.

At least not for another six or seven days, anyway.

"It looks like a lot less rain coming in the next few days, so that's automatically better," said John Underhill of the Salt River Project's emergency operations center. "We don't expect the same situation we had with record water releases that we had last Friday."

The National Weather Service said 1.84 inches fell at Sky Harbor International Airport and more than 2 inches were recorded at Seventh Street and Baseline Road before skies began to clear early today. An automatic rain gauge in the McDowell Mountains registered 2.48 inches from Sunday's storm, and up to 8 inches of snow fell on the watershed's higher elevations.

"This storm is clearing out for today, and another storm looks like will be here about Wednesday. It could be as strong as the last storm," National Weather Service meteorologist Craig Ellis said today.

About 100 streets around the Valley are closed by flooding, police and sheriff's deputies said. Few prob-

See ■STORMS, Page A6

PHOENIX GAZETTE
JAN. 11, 1993

lems were reported from this morning's rush hour.

Across the state, officials were struggling to control and repair storm damage, Sherry Phelps, a spokeswoman for the Arizona Division of Emergency Management, reported.

Six stranded families on the Gila River Indian Reservation were rescued, authorities said. But hundreds of residents in northeast Tucson were without water this morning after heavy rains caused a pipeline to rupture. Officials were hoping to truck water to the area today.

Heavy rains, especially in the Sunflower area, prompted SRP to boost the flow at Granite Reef Dam to 63,000 cubic feet per second about 6 a.m. today. That was up from 46,500 cfs at midnight and the 36,000-cfs flow Sunday.

Jeff Lane, an SRP spokesman, said today's releases into the Salt River probably would not exceed 80,000 cfs.

SRP officials say they don't expect to repeat the 124,000 cfs release that raged through the Salt River on Friday, leaving flooding, evacuations and bridge closures in its wake.

"We don't anticipate going up that high. Our worst-case scenario for the week is 70,000 to 100,000 cfs," Underhill said.

Forecasters say after Wednesday's storm moves through, there should be a temporary reprieve from the rains. Ellis predicted dry weather through the weekend, with a large storm anticipated late Sunday or Monday.

"We can expect a lot of rain from that one, with the potential for flooding and flash flooding," Ellis said.

As the water levels in the normally dry Salt River began subsiding Sunday, piles of rotting trash and debris were scattered along the river's edge. Much of the garbage probably came from the Tri-City Landfill north of Mesa, which was partially swept away Friday.

Up to 9 inches of rain has fallen on sections of the Salt and Verde rivers' 13,000-square mile watershed since Wednesday, gorging normally dry washes and filling the Valley's water storage system to capacity.

The rains caused record releases Friday into the Salt River and flooding in low-lying areas that rivaled the February 1980 floods, when nine days of rain led to $63 million in damages and four deaths statewide.

No deaths or serious injuries were reported in the latest storm, but officials have yet to estimate how much property has been damaged.

Emergency workers hoped to canvass the state today for a preliminary damage estimate in order to qualify for federal aid.

"We really can't put a number on it yet. In some places, we'll have to wait for the water to go down before we can figure it out," said Karen Paulsen, a spokeswoman for the Emergency Management division.

Paulsen said if preliminary damage estimates are completed Tuesday, Arizona could learn by next week whether it is eligible for low-interest loans for homes and businesses damaged by the floods.

Roads, dams, bridges and other public structures that were damaged could receive 25 percent of the cost of reconstruction from the federal government, she said.

Sen. Dennis DeConcini, D-Ariz., toured parts of the state Sunday and said he was pleased with the state and federal response.

On Friday, Gov. Fife Symington declared a flood emergency, the first step in obtaining federal assistance for rebuilding efforts.

The Arizona National Guard has activated 60 members since Friday to assist in rescues, sandbagging and flood-control efforts throughout the state. Maj. Dean LeVay said more members have been put on standby in case flooding worsens.

A flood warning is in effect for the Gila River below Coolidge Dam, which is releasing record amounts of water that could swamp communities downstream, officials said.

The dam, 80 miles southeast of Phoenix, is expected to release 30,000 cfs Tuesday to keep water from cresting over the spillways. The most water that has been released from the dam is 5,000 cfs, but Bureau of Reclamation officials say that the spillways are constructed to handle 120,000 cfs.

Ellis said people living downstream in the communities of Winkleman, Kearney, Hayden, Riverside and Kelvin should take precautions to protect life and property from potential flooding in the Gila River. An evacuation order for about 200 residents in the Holly Acres area west of Phoenix was lifted during the weekend, but residents were told to stay on alert in case the Salt River began surging, county officials said.

Because of the contamination from landfills and broken sewage lines, the state Department of Health Services issued a public health advisory warning that water or food exposed to floodwaters should not be consumed.

Officials said the move is a precautionary measure and that it is not an indication of widespread health problems. However, testing will be conducted to see if there is a "residual effect" from the floodwaters, said Daniel Roe, spokesman for the Division of Emergency Management.

By Sunday afternoon, a 400-foot-by-80-foot section of the Tri-City Landfill was missing, state officials said. Despite the breach in the landfill, which is operated by the Salt River Pima-Maricopa Indian Community, garbage from Mesa and Scottsdale continued to be dumped at the site.

"We were out there yesterday (Saturday), and we saw a number of Mesa trucks dumping trash," John Godec, DEQ spokesman, said Sunday. "There's trash going in one side and coming out the other side in the river."

WEEKEND EDITION

# River rages; new storm due

## Salt threatens to swamp homes in low-lying areas

THE PHOENIX GAZETTE Saturday, January 9, 1993

By Glen Creno and Susan Herold
THE PHOENIX GAZETTE

Powerful water releases that tore up a new bridge on the Salt River, sliced into a landfill and forced the governor to declare a statewide emergency are expected to continue beyond the weekend.

More storms are expected into next week.

The torrent of water running through the usually dry Salt River had officials scrambling from one crisis to another Friday while trying to predict what would happen next.

Dozens of people were evacuated from homes near the river as the water flow reached levels that haven't been seen since the floods of 1980, which killed three people in the Valley.

Heavy rain has forced the Salt River Project to release runoff from its reservoirs, turning the Salt River into a conduit for dirty, churning water scuffed with whitecaps.

No deaths or severe injuries were reported Friday, and no damage estimates were available. However, the water releases were potentially so destructive that Gov. Fife Symington spent most of his day evaluating the situation.

Symington declared the flood emergency early Friday, then joined U.S. Sen. John McCain, R-Ariz., for a helicopter tour of the swollen river. One of the first things he saw was the damage to the new Mill Avenue Bridge in Tempe, an unfinished span that partially collapsed by afternoon.

"That is an incredible sight," Symington said as he looked down at the bridge. "Look at all the debris on the surface. It's really unbelievable."

See ■FLOODS, Page A6

PHOENIX GAZETTE
JAN. 9 1993

## ■ FLOODS

From A1

Symington also inspected the Tri-City Landfill, a huge installation on the banks of the river in the Salt River Pima-Maricopa Indian Community. Water has ripped open the landfill, exposing construction debris and raising fears that more pounding could wash away the more-toxic trash buried there.

The river flow peaked at 124,000 cubic feet per second Friday night. It was the highest since SRP released 178,000 cfs into the river in 1980.

The disastrous floods of 1978 taught Valley bridge builders an unforgettable lesson. Those floods claimed several bridges, and most of those now in use are designed to handle heavy water in the 200,000 cfs area.

The Gilbert Road, 35th Avenue and state Route 85 bridges were closed. The Central Avenue and 51st Avenue bridges remained open, though the water flow was near the capacity of the Central Avenue bridge and exceeded what the 51st Avenue bridge is supposed to handle.

Authorities evacuated at least three areas near the river Friday. The Red Cross set up two emergency shelters for people flooded out of their homes.

One at Westwood High School in Mesa was set up to handle the 210 people that could be evacuated from the Hawaiian Family Mobile Home Park. The other shelter at Littleton Elementary School in the West Valley was opened to handle the 200 people evacuated from the Holly Acres community.

Between 50 and 60 residents of the Salt River reservation also were evacuated. Most of them spent the night with relatives.

Heavy equipment strained to set up barriers to the rising water near Holly Acres. As backloaders roared nearby, Louis Michelena stared in disbelief as the water lapped at the dike near his son's property.

Although the water had been rising all day, his son didn't find out that his trailer, barn and animals were in danger until 2:30 p.m.

"I don't know what I'm going to do with those damn cows," Michelena said, looking at three wide-eyed cattle inside a barbed-wire pen. "They're too mean for me to get in there."

Michelena managed to get two of the four gray horses that roamed the property into a horse trailer, and he yelled instructions in Spanish to three men he hired to help him pack valuables.

"I'm going to get out of here before too long. This is just a shame that all this may be gone," he said. Minutes later, his son arrived with a rented trailer and began packing.

Propane tanks, cars and animals were reportedly spotted floating down the raging river near Holly Acres.

"I've seen refrigerators and cars go by. Now we're just waiting to see some houses float down," Eva Anderson said.

Hundreds of people made their way to the banks of the river at Mill Avenue Friday afternoon to stare in amazement at the muddy rapids before them. They came on foot, bicycle, skateboard and car to survey the water and the damage it did to the new Mill Avenue Bridge.

A group of girls offered a man with a camera $2 for a snapshot of themselves in front of the river. Dozens of other onlookers brought along video cameras to record the event.

"It's kinda morbid, but I might hang around a bit longer to see if anything else falls in," said Peter Cervelli, an Arizona State University student who had a video camera on his shoulder.

Others viewed the river as an educational event. Heather Bavol trotted about a dozen preschoolers down to the river bank at Mill so they could see a "real river."

"We thought we'd show them some history in the making," said Bavol, acting director of Congregational Child Care in Tempe. "Most of these kids have lived here their whole life, so they've never seen this."

Phoenix City Manager Frank Fairbanks said homes and businesses near the river could be flooded. But he said probably fewer than 100 homes and businesses would be affected unless waters rise dramatically.

Pat Manion, Fairbanks' aide handling the flood preparations, said the city is trying to forecast which low-lying areas might be hit hardest by flooding. He said making such projections is difficult.

"I don't think anyone knows where the river's going to run," he said.

Manion said most city landfills near the river should be in good shape but there are concerns about the Del Rio landfill, between 7th and 16th streets just north of the Salt River. Rocks and other rubble were dumped near the landfill to keep water from flowing under it.

Eva Smith watched water flow by the 51st Avenue bridge. She worried that if the river rose much further it would reach her trailer near the river's south bank.

"What's going to happen to my chickens and my ducks and my geese?" she asked.

Flooding and weather problems were reported statewide, but damage was particularly severe in Tucson. Pima County officials declared an emergency Friday morning and asked Symington for permission to use National Guard troops and federal funds if needed.

Sgt. Ron Benson, a spokesman for the Pima County Sheriff's Office, said dozens of intersections were flooded and five Tucson schools were closed because of flooding.

Several bridges were reported swaying. The Ina Road bridge over the Santa Cruz River was closed because water was tearing away supports near the pilings.

Symington released state funds to local emergency services offices for evacuations and water control efforts. He said early Friday that major bridges and dams on the Salt and Verde rivers were sound.

"But there is a big storm coming," Symington said.

*Includes information from reporters David Hoye, Mike McCloy, Mike Padgett, Betty Reid, Roberto Sánchez, Tom Spratt and Judi Villa.*

### Flood tips

During the Valley flood watch, the Phoenix Fire Department and the Central Arizona chapter of the American Red Cross offer the following tips to Valley residents in flood areas:

■Move valuables to high ground.

■Place sandbags near homes. The Fire Department has sand available behind stations at 10 locations:

1. Station 12, 4243 N. 32 St.
2. Station 13, 2828 N. 48th St.
3. Station 17, 1513 E. Missouri Ave.
4. Station 18, 5019 N. 23rd Ave.
5. Station 22, 230 E. Roeser Road.
6. Station 24, 2602 N. 43rd Ave.
7. Station 30, 7717 No. 27th Ave.
8. Station 31, 5730 E. Thunderbird Road.
9. Station 36, 21602 N. Ninth Ave.
10. Station 41, 2501 W. Morningside Drive.

Do not stack sandbags against the outside walls of a house. Place them away from the house to prevent floodwaters from reaching the home.

■Listen to radio and television for shelter locations.

■If authorities issue flood warnings, fill bathtubs with water for an uncontaminated supply of water.

■If you are advised to evacuate, secure your home if you have time. Move garbage cans, gardening equipment and furniture inside so it doesn't float away.

■Turn off electrical switches at the main breaker box to avoid damage to wires.

■Follow evacuation routes. Do not try to find shortcuts on your own.

■Tell another family member where you are going.

The Red Cross has one shelter open at Littleton School, 1252 S. 115th Ave. in Cashion. For information, call Claudia Schnagl at the Red Cross using pager number 631-8790.

PHOENIX GAZETTE
JAN 9, 1993

Nancy Engebretson / THE PHOENIX GAZETTE
After experiencing three floods in 20 years, the Walker family of Holly Acres has developed a system to save the things they can't truck out.

## ■ EVACUATE

From A1

edge, where 121st Avenue dead-ends, in a modest two-story home built by Bevins and his mother, Rosella Davis, 65.

The home is surrounded by stately old trees. On Friday, the family stored equipment and other items high in the branches.

Bevins showed visitors water marks on the side of the house left by the river during a flood in 1980.

The house was rebuilt after a 1978 flood that destroyed Bevins' original home.

He pointed to some cinder blocks in the back yard.

"There's a water meter there. A faucet. That used to be the back of the old house," he said.

Some might call the family crazy for living so close to a river. Bevins, 48, doesn't see it that way.

"Nobody bothers us pretty much out here," he said.

The family owns about two acres. The area is peaceful and teeming with wildlife. It's an ideal place for Bevins and his wife, Linda, to raise Austin, 5, Alana, 7, and Tawney, 9, the couple say.

But on Friday, it was anything but ideal. The Bevinses found a note on their door Friday afternoon. It was from the Maricopa County Sheriff's Office, asking them to leave their house and go to a Red Cross shelter set up at Littleton Elementary School, 115th Avenue and West Buckeye Road.

On Friday, the Bevinses first moved their horses and cows to safety. They were helped by a friend, Pat Melligan, whose home was safe from the floodwaters.

"I'm very sad," Linda Bevins, 42, said. "The kids were born down here."

Al Bevins said the family will stay with his mother a few miles away until the danger passes.

If the river spills its banks, Bevins said he plans to rebuild.

"I love it," he said. "It's home."

### Valley streets act as storm drain

What is it about Arizona that occasionally causes street flooding and turns the Valley of the Sun into a tidal basin?

The area is a drain for 50,000 square miles of watershed, covering most of Arizona and parts of New Mexico.

The flooding along the Salt and Agua Fria rivers is caused when riverbanks overflow with runoff from higher elevations.

That's how the water gets here. And once it does, it tends to stay.

"When it rains heavily, the city gets flooded because there are no washes, creeks or channels to carry off the water," said Paul Kienow, a county flood plain management engineer. "There are some storm drains and canals, but no natural drainage from 48th Street to the Agua Fria but streets."

Peter Schwepker / THE PHOENIX GAZETTE
Linda Bevins and her cat prepare to join the rest of the family and leave their home, which is threatened by the Salt River.

# Once again, river threatens to wash away family's home

By Diana Balazs
THE PHOENIX GAZETTE

Al Bevins and his family were in a hurry.

So was the Salt River.

Bevins was among 200 residents of Holly Acres, a rural community west of Phoenix, advised to evacuate their homes Friday as the Salt River threatened to overflow its banks and spill into acres of farmland and homesites.

As his family packed up and prepared to move to higher ground, Bevins spoke over the river's roar. Only a rock-encrusted earthen dike protected residents from the raging waters on the other side.

"We've been through it before," Bevins said.

He has lived in the area since 1973, weathered two other major floods, then returned and rebuilt.

The family lives at the river's

See ■EVACUATE, Page A6

TEMPE TRIBUNE JAN. 10, 1993

# Damage noted as fresh storm targets Valley

By Ruthanne Gilbert
Tribune writer

The flash of sunshine Saturday gave people the chance to survey flood-related damage and prepare for the next storm expected today.

National Weather Service forecasters say more bad weather could dump up to an inch of rain on the already saturated ground.

Statewide, no deaths or serious injuries were reported from the storm and, despite several precautionary evacuations, few Valley homes were flooded, authorities said.

What was left of the $6.6 million second Mill Avenue Bridge, which was under construction, hung on while waters battered the remaining spans. Rushing water tore away portions of the uncompleted span Friday.

Salt River Project officials said they had reduced the water flow from Granite Reef Diversion Dam to 100,000 cubic feet per second by Saturday from a high of 150,000 cfs Friday.

"That should remain steady even through the next storm," said Scott Harelson, an SRP spokesman.

He said all the dams are in good condition and called the last storm "manageable" although SRP recorded a record amount of water coming into the system from the 13,000-square-mile watershed.

Harelson said the previous record was 100,000 cfs and officials estimate it could reach as high as 140,000 cfs.

The storm which started Tuesday and

## Rain

From page A1

was not considered over until early Friday dumped up to nearly 2.5 inches of rain in some parts of the Valley and 3 inches in north Glendale, said Craig Ellis, a Weather Service forecaster.

Another wet storm was expected to hit the state late Saturday and the Valley by today, he said.

"Although the incoming storm does not look as if it will be quite as wet as the very wet storm this past week, it still is a wet storm with an abundance of tropical moisture," Ellis said.

A flash flood and flood watch was issued Saturday for western Arizona and today for all of Arizona, he said.

The approaching storm traveled along the Southern California coast and may dump anywhere from .75 to 1½ inches of rain, Ellis said.

"The ground won't be soaking it up so any additional rain will be running off rapidly," he said.

The storm should move out by Monday, but another storm may hit the state Wednesday with no end of the rainy weather in sight.

"The outlook is for continued above normal rainfall," Ellis said, adding, "We're in a wet pattern that looks like it's going to be here for a while."

He said the aftereffects of El Nino are one reason for the increased rainfall.

El Nino is a warm, inshore current off the West Coast that causes the trade winds to lighten and change direction, bringing more rain. The additional rain remains during the next season, Ellis said.

Unbridged crossings like that at McKellips Road and the bridge on Gilbert Road will remain closed until water levels drop, authorities said.

Red Cross evacuation centers in Mesa and near Cashion closed early due to lack of evacuees.

"We just don't think people want to leave their homes," said Claudia Schnagl, a Red Cross spokeswoman.

Volunteers at the Westwood High School evacuation center went home late Saturday after none of the 200 projected people showed up, she said.

"We don't know if people are staying with family or friends or just don't know the type of assistance available," she said,

Mark Trujillo of the Central Arizona Shelter Services, a homeless shelter in Phoenix, guessed many homeless who camp near the river are fending for themselves elsewhere. He said the shelter was at capacity with a waiting list of 25.

He said he knows of about 30 people who usually camp near the river. "People on the river are pretty self-sufficient and try to hang on out there and not come inside if they don't have to," he said.

The Red Cross opened its switchboard to the public in anticipation of callers needing help, but closed it several hours later after no calls were received, she said.

## How to handle flash flooding

**Before the flood**

- Make plans for where you will go if you need to leave quickly.
- Prepare an emergency supply kit for your home and automobile with a three-day supply of food and water, sanitary supplies, flashlight, battery operated radio, first-aid kit and important personal papers.
- Know how to turn off electrical, water and gas service connections.
- Report all broken or disrupted utility lines.

**When a flash flood watch is issued:**

- Travel only if necessary.
- If you must drive, make sure your vehicle is operating properly and has sufficient fuel — and that you know how to get to higher ground.

**When a flash flood warning is issued:**

- Don't enter washes, unbridged crossings or rising creeks and rivers.
- If your vehicle stalls out in a flooded area, abandon it immediately.

**After the flash flood watch or warning is canceled:**

- Check radio or television reports for follow-up information on road and bridge closures.

Some residents at Mesa's Aloha Trailer Park, near Country Club Drive and McKellips, looked at their trailers from behind a police barricade.

Families who lived in six trailers were evacuated at noon Friday in anticipation of rising water from the nearby Salt River. But by 11 a.m. Saturday there was no more than a puddle in the drive in front of the trailers.

West of Phoenix at the Holly Acres subdivision, water rose only high enough to irrigate the yards of the homes which had been evacuated Friday.

"They got enough to wet the yard," said Sgt. Jay Ellison, a Maricopa County Sheriff's Office spokesman.

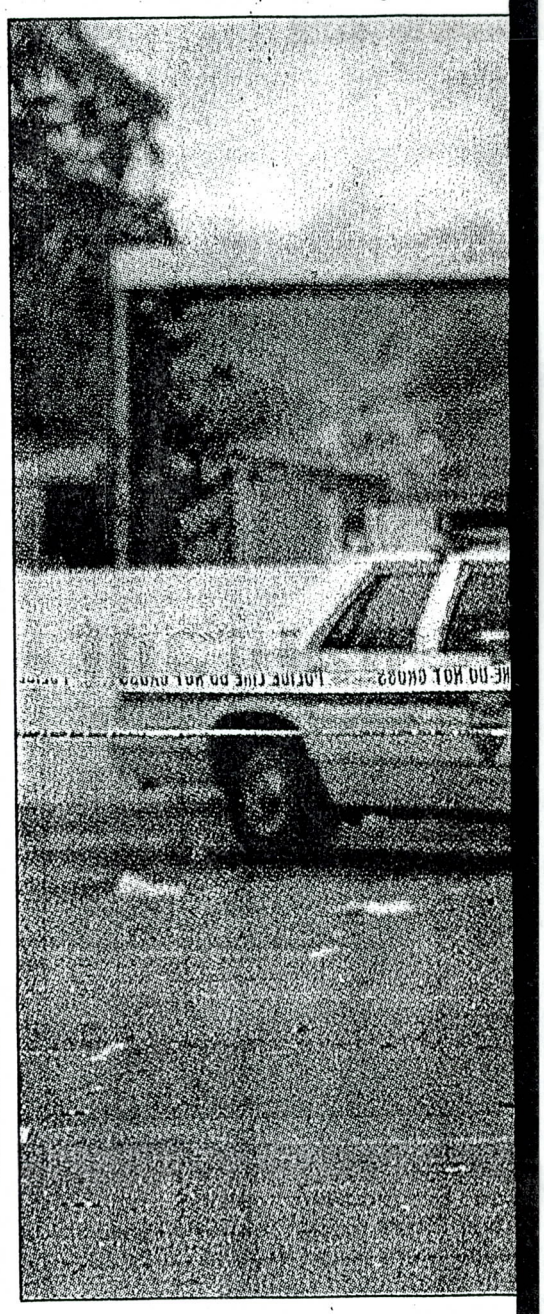
Residents were allowed to return to their homes with the understanding they might be forced to leave again at short notice, he said.

Winslow declared a state of emergency after discovering large breaks in dikes holding back the Little Colorado River.

Water poured into the Ames Acres subdivision where about 75 homes had been evacuated, said Capt. Larry Baldwin, acting Winslow police chief.

The breaks were found Friday night and inmates from a nearby state prison filled sandbags in an attempt to shore them up, he said.

In the southern part of the state, Pima County officials report being hit



**'Although the incoming storm does not look as if it will be quite as wet as the very wet storm this past week, it still is a wet storm.'**
— Craig Ellis
Weather Service forecaster

hard. "We had a lot of flooding. There are 50 different intersections closed, 30 of those are in the city of Tucson," Pima County Sheriff's Sgt. Ron Benson said. He said there were no reports of structural damage to bridges.

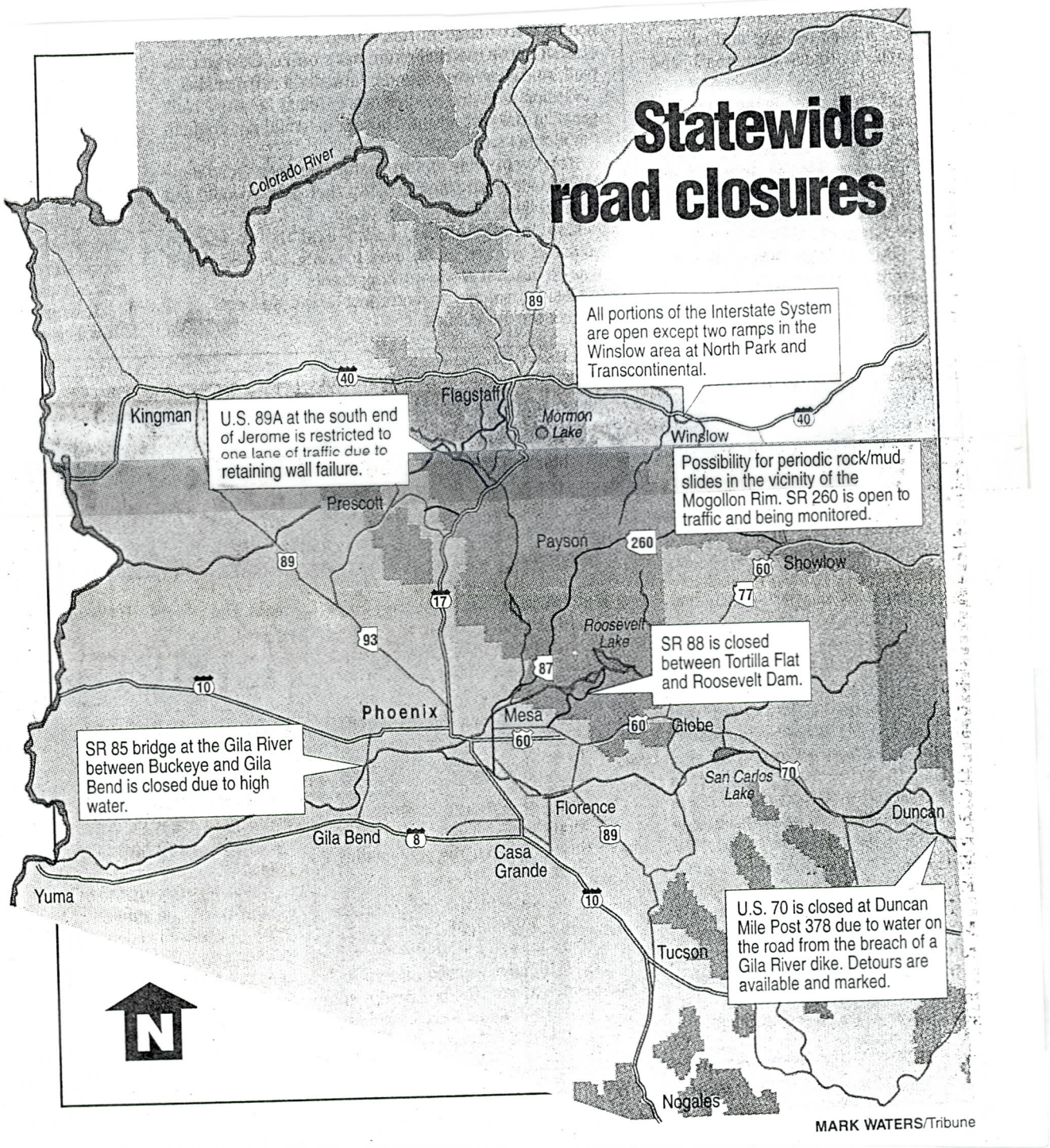
He said the northeast portion of Tucson was the hardest hit by the Rillito River, which was receding Saturday.

"We're preparing for Tuesday when we expect up to 2 inches of rain. If that does happen, there will be some problems," Benson said.

In northern Arizona, about 50 people were evacuated in both the Sedona area and Verde Lakes community near Camp Verde.

*Tribune reporter Patricia Likens contributed to this report.*

— OVER


Statewide road closures
Colorado River
All portions of the Interstate System are open except two ramps in the Winslow area at North Park and Transcontinental.
U.S. 89A at the south end of Jerome is restricted to one lane of traffic due to retaining wall failure.
Possibility for periodic rock/mud slides in the vicinity of the Mogollon Rim. SR 260 is open to traffic and being monitored.
SR 88 is closed between Tortilla Flat and Roosevelt Dam.
SR 85 bridge at the Gila River between Buckeye and Gila Bend is closed due to high water.
U.S. 70 is closed at Duncan Mile Post 378 due to water on the road from the breach of a Gila River dike. Detours are available and marked.
Kingman
Flagstaff
Mormon Lake
Winslow
Prescott
Payson
Showlow
Roosevelt Lake
Phoenix
Mesa
Globe
San Carlos Lake
Florence
Duncan
Gila Bend
Casa Grande
Yuma
Tucson
Nogales
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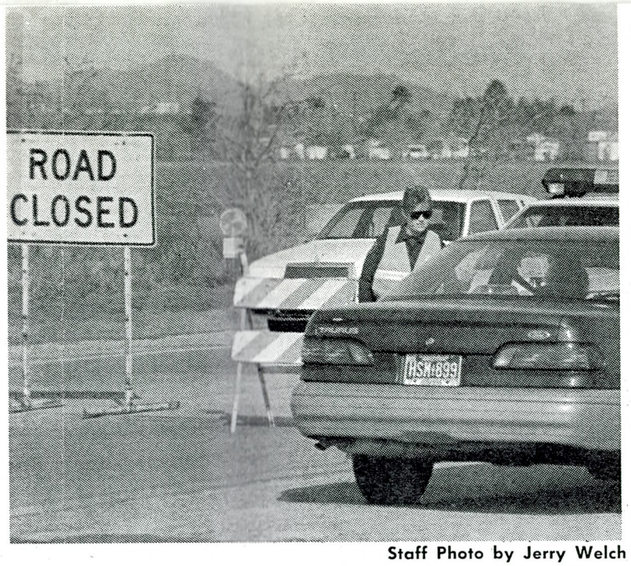
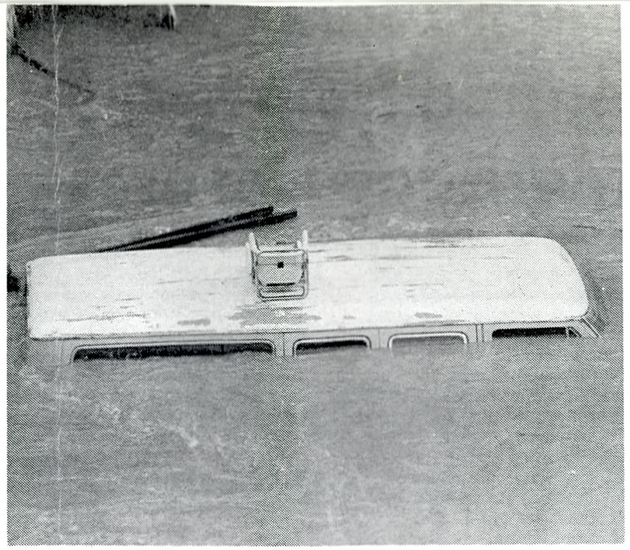
MARK WATERS/Tribune

TRI-VALLEY DISPATCH
JAN. 20-21, 1993

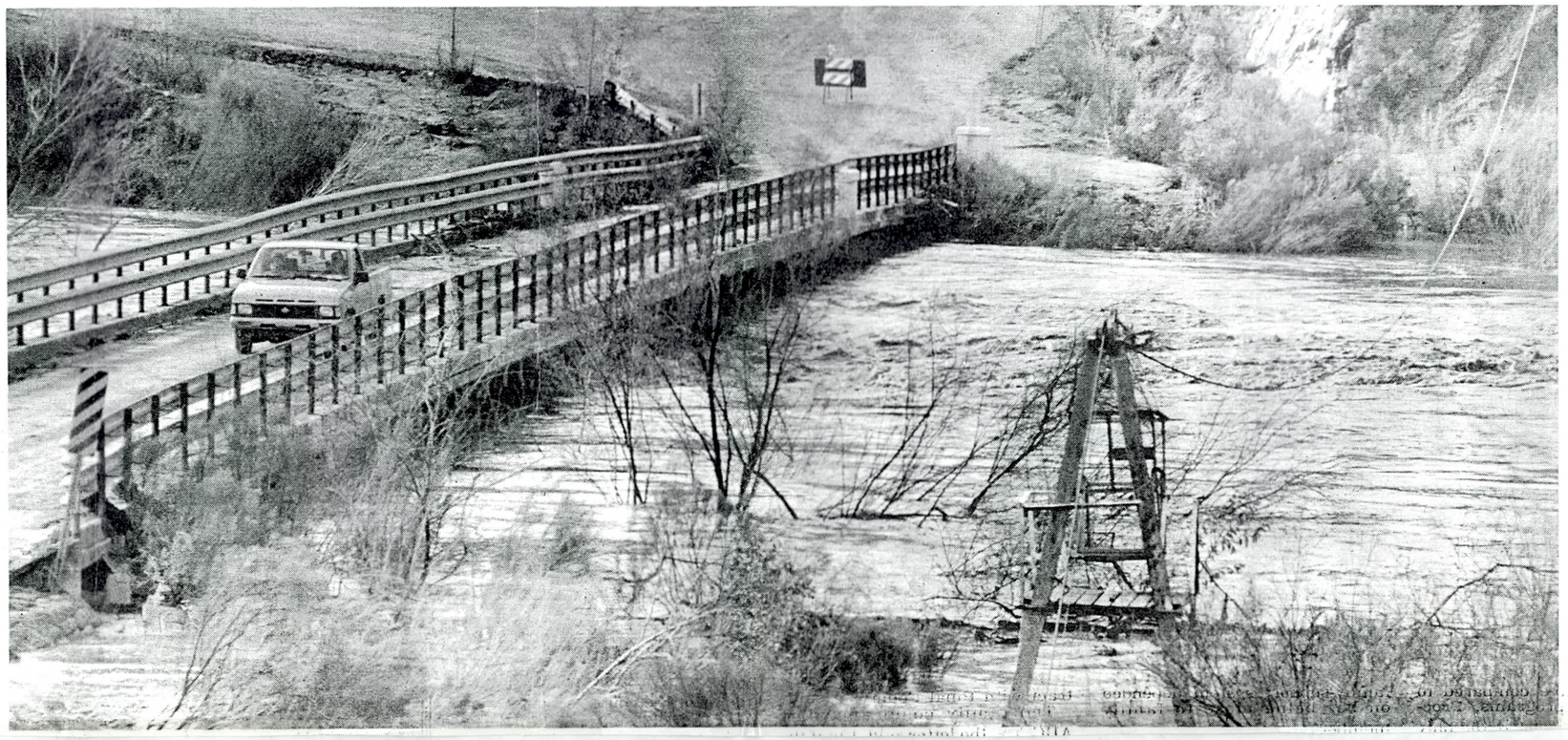



Staff Photo by Jerry Welch



## *Pinal County Deluged after Record Rainfall*

# Who'll Stop the Rain?



-OVER

Flooding and high water caused property damage and road closures throughout Pinal County last week. Winkelman and Winkelman Flats received heavy flooding. Flooding of the Gila River left 350 people temporarily homeless. Damage from the floodwaters was visible throughout the Casa Grande Valley, as you can see in these scenes.

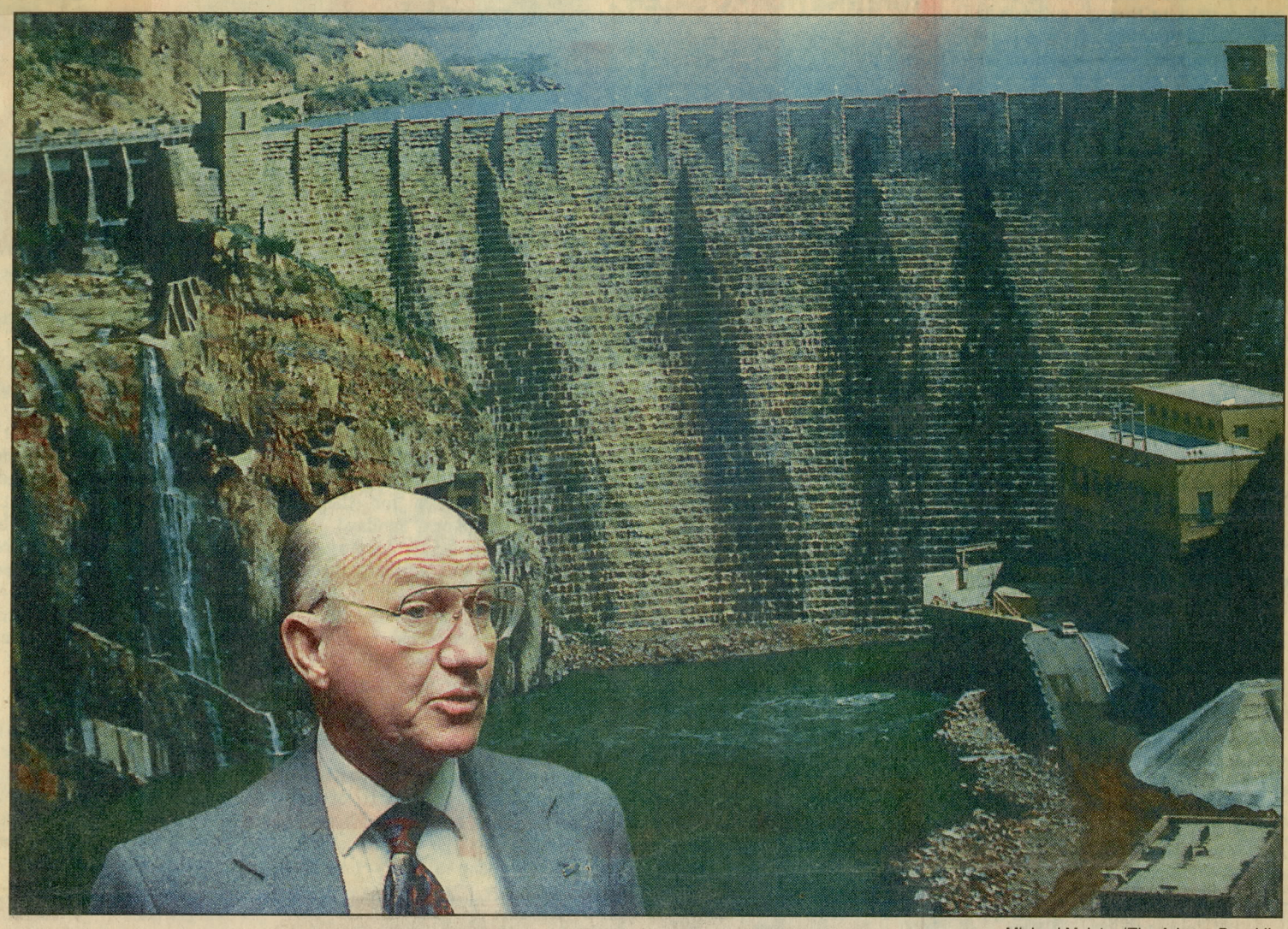
In the top photos from left, Casa Grande police closed off Trekell Road just north of Kortsen Road last week as the Santa Cruz Wash covered the road. A child's carseat sits on top of this abandoned van in Winkelman Flats. Two Casa Grande residents, Anthony Macias, left, and Leroy Angel, right, attempt to push a pickup truck out of the mud in a vacant lot near Cottonwood Lane and Morrison Avenue.

Above, a truck dares to cross the bridge on Kelvin Highway at Riverside. The bridge has been under the waters of the Gila River several times the last two weeks.

**DRAPES FLOAT** from the window as flood waters submerge this home located in Winkelman Flats. Floods caused extensive damage to many homes in Winkelman and caused many residents to move to emergency shelters.

**BONNIE MARISCAL** and her family spent most of last week at the Winkelman Hayden High School Gym after their Winkelman home was flooded last week.

**RESIDENTS OF** Kearny look out at the Gila River, which threatened their new airport. The airport facility is now under water and part of its runway has been washed away.

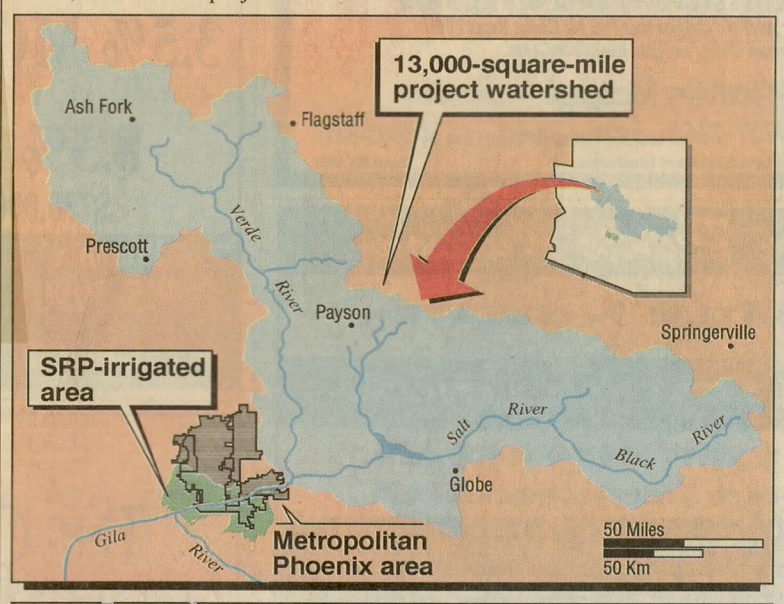


Michael Meister/The Arizona Republic

Carroll M. Perkins, Salt River Project general manager, says the utility is positioned to provide water and power into the next century.

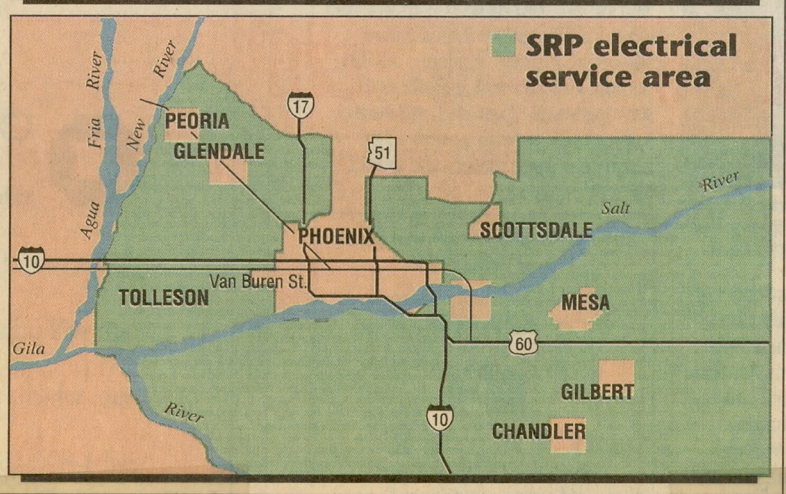
## SALT RIVER PROJECT

The utility, created by concerned Valley residents after a long drought in the 1890s, was the first project formed under the 1902 National Reclamaton Act.










Gus Walker/The Arizona Republic

# THE SRP VALLEY'S LIFELINE

## Utility was organized after drought in 1890s

**By Guy Webster**
The Arizona Republic

When the Salt River Project looks back, it sees a 90-year-old irrigation district and a younger electric utility that, together, nurtured what became one of the West's biggest cities.

When it looks toward its 100th anniversary, it sees continuing urban growth and the possibility of a big jump in electricity usage from a proliferation of electric cars, General Manager Carroll M. Perkins said.

Despite the SRP's crucial role in the Valley, some important aspects of its identity are unfamiliar to many customers.

For example:

- The utility's two parts are a non-profit corporation that supplies water and a government body that supplies electricity. The electric side brings in 99 percent of its revenues.
- The electric side subsidizes the water side with millions of dollars annually, which discourages water conservation by making water available at a fraction of its real cost.
- The SRP gets regulatory and tax advantages from being a government hybrid with publicly elected board members, but only landowners may vote, and their votes are weighted by how much land they own.

To make sense of the SRP, it's necessary to know its history.

Nineteenth-century settlers in the Phoenix area copied earlier Indian practices of irrigating their crops from canals off the Salt River. However, a long drought in the 1890s inflamed conflicts about water rights and threatened the community's future.

A committee formed by the Maricopa County Board of Trade in 1900 proposed a dam on the Salt to create a reservoir about 80 miles east of Phoenix, and in 1902, Congress passed the National Reclamation Act for encouraging growth in the West by building water projects.

The Salt River Valley was suited to be the first site for a project under the new law. Its 13,000 square-mile watershed area, including mountains where snows accumulate, funneled onto a fertile plain that already had distribution canals, farms, and about 5,000 people. Landowners in the Valley incorporated the Salt River Valley Water Users' Association in February 1903 and pledged their land as collateral for a contract to repay the federal government for building a dam.

— *See* **1890s DROUGHT,** *page F6*

– OVPV

# 1890s drought gave birth to SRP

— **1890s DROUGHT,** *from page F1*

The construction of Roosevelt Dam began in 1905 and was completed in 1911. It cost $10.3 million and the lives of more than 30 workers.

Three smaller storage dams on the Salt and two on its Verde River tributary were added by 1946.

Hydroelectric generators in the dams on the Salt made power that the Water Users' Association could sell to help pay its construction debts. The generators also could be used to run groundwater pumps.

## Power district formed

Even with water and electric revenues combined, though, the association had trouble making debt payments during the Depression. The Arizona Legislature came to the rescue in 1937, authorizing formation of the second part of the SRP, the Salt River Project Agricultural Improvement and Power District.

While the Water Users' Association remains a corporation, the power district is a unit of government, with privileges similar to a municipality's. For example, the SRP sells tax-exempt bonds, which attract bond buyers at interest rates lower than it otherwise would have to pay on long-term debt. Also, it escapes state regulation of electric rates.

To supply central Arizona's rapid growth in recent decades, the SRP has sold bonds to finance coal-burning and nuclear power plants. The bonds are backed by revenues from electric customers. Less than 2 percent of the SRP's long-term debt is still backed by land. Only about 3 percent of the electricity that the SRP sells originates as hydroelectricity.

Since the utility was formed, about 70 percent of the 240,000 acres within its water-service boundaries has converted from farmland to urban use.

Some city residents get water directly from the SRP for irrigating their yards, but most who are supplied by the utility get the water indirectly. Cities pay the SRP to deliver water to their water departments, which treat it and deliver it to customers.

In customer base and in revenues, the SRP now looks more like an urban utility than an agricultural irrigation project, but farmers still win most of the elections to its governing boards. The siphoning of electricity revenues to cover water expenses — a $31 million transfer last year to augment $8 million in water revenues — benefits farmers since they use more water in proportion to electricity than urban customers do.

"The major purpose of our existence is to manage the water that belongs to the land within the borders of the project," said Perkins, who has worked for the SRP for 37 years and became general manager two years ago. "That's what has allowed Phoenix to become what it is today."

The Arizona Center for Law in the Public Interest in Phoenix challenged the constitutionality of acreage-based voting for the SRP power-district board in a 1975 lawsuit. The SRP argued that weighted voting was justified because private land was collateral for original financing. The challenge lost in federal court, won on appeal, then fell in a 5-4 ruling by the U.S. Supreme Court in 1981.

The state Legislature can change SRP voting rules, and did so in 1976. It added four at-large seats to the power-district board and allowed landowners with less than an acre to vote. All votes count equally in elections for at-large directors. Voting is still weighted by acreage for the board's other 10 seats and for all 10 on the Water Users' Association board.

The next election will be in April 1994. Fewer than 1 percent of eligible voters have voted in recent SRP elections.

## SRP's low electric rates

Perkins said he'd like to see more participation but suggested that the low turnout may indicate public satisfaction. The SRP has kept electric rates for its half-million residential households averaging 15 to 20 percent lower than rates charged by Arizona Public Service Co.

When Arizona's growth boom lost steam in the late 1980s, the SRP retrenched dramatically. It aborted a partially built power-plant addition near St. Johns in 1988, and has cut more than 1,000 people from its payroll since 1989. It now employs about 4,900 people.

The utility is in good shape now to satisfy customers' water and power needs for more than the next 10 years, Perkins said.

Other than the potential for a jump in power demand if electric cars become popular, growth will be more moderate than in past decades, he predicted last week.

Electric-car owners probably would consume as much, or more, electricity for their cars as for their homes, Perkins said.

Although the number of electricity customers is growing, the consumption per household is not.

"In the late 1960s, we were projecting that customers would be at 20,000 kilowatt hours per year by now," Perkins said.

Instead, rising energy prices prompted conservation. Average consumption by residential customers has stayed at 12,000 to 13,000 kilowatt hours each year since 1974, he said.

The SRP is not planning to build any more big power plants before 2010, he said.

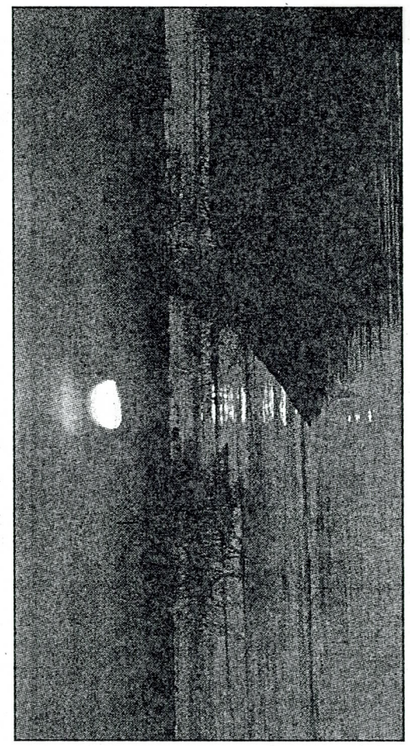
It has several options for increasing supplies as needed. Some large wholesale contracts for sales to Arizona Public Service give the SRP the right to cancel on three years' notice and keep the energy for its own customers. Also, terms by which the SRP sold a share of the Palo Verde Nuclear Generating Station to the Los Angeles Department of Water and Power in the 1980s allow the utility an option to retake that share after 15 years, Perkins said.

The utility also will continue programs for encouraging customers to reduce energy consumption during the hours of peak demand on the system, and programs to improve the efficiency of its distribution and transmission network, he said.

The SRP has not decided what type of power plant to build when it does need a big addition to supply. Solar, coal and nuclear sources are all possibilities, Perkins said.

On the water side, the SRP will gain additional storage capacity from a project that is under way to make Roosevelt Dam higher. There are also plans to construct an underground storage system.

# Gila, Santa Cruz rivers recede



Sean Openshaw/The Arizona Republic

Day dawns over the Gila River near Interstate 10 south of Phoenix. The possible closure of I-10 south of Phoenix never materialized Thursday, because floodwaters finally calmed.

## Highways are open; 5th drowning likely

**By Steve Yozwiak**
The Arizona Republic

Floodwaters fed by nearly two weeks of torrential rain finally receded Thursday along ravaged stretches of the Gila and Santa Cruz rivers, easing fears of major highway closings and additional evacuations.

Although waters have been receding for days in Maricopa County, they have swirled through usually dry riverbeds with enough deceiving force to claim a fifth apparent drowning victim.

Meanwhile, pack-mule operations at the Grand Canyon were suspended indefinitely Thursday after a rockslide caused by rain

— See **RIVERS**, *page A2*

# Rivers begin receding, road-closure risk eases

— **RIVERS**, *from page A1*

erosion destroyed a 60-foot section of a transcanyon waterline. Hiking in the canyon was restricted, and the Phantom Ranch Lodge at the bottom was ordered closed until Feb. 2.

And the second major natural-gas explosion in three days sent flames into the night sky south of Buckeye on Thursday about 1:10 a.m. The first explosion and fire, 13 miles to the west on the same El Paso Natural Gas pipeline, occurred late Tuesday after floodwaters on the Gila ruptured the line and river debris or a nearby electrical line ignited the escaping gas.

No injuries were reported in the fires.

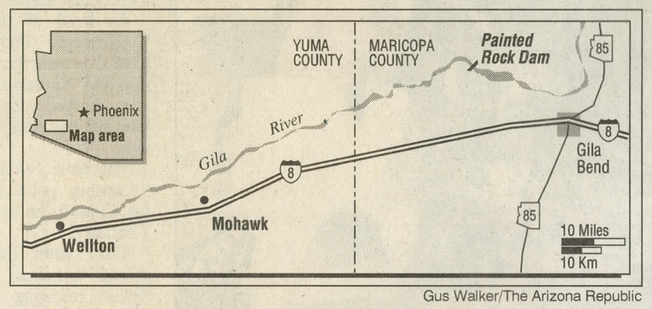
Floodwaters about 40 miles north of Phoenix drowned a fifth apparent victim late Wednesday when Hector Chivera, 21, of Rock Springs, was swept down the Agua Fria River as he tried to cross it on horseback on his way to Black Canyon City.

Maricopa County sheriff's Sgt. Jay Ellison said Chivera's horse was found, but his body was not.

Ellison also identified an apparent suicide victim on the Gila River at 67th Avenue as Dennis D. Petrinjak, 35, of Phoenix. Witnesses told deputies that Petrinjak drove his pickup to the river Wednesday, left it running, got out, waded into the water and was swept downstream. His body has not been found.

Ellison said family members told investigators that Petrinjak had emotional problems.

In Gila County, the body of Wesley Hall, 29, of Glendale, was recovered from Tonto Creek on Wednesday, about 10 miles below where he was swept out of his kayak Monday, sheriff's Sgt. John Holmes said.




Gus Walker/The Arizona Republic

Gila River Indian Reservation police Sgt. Kevin Lewis, who disappeared Sunday while checking roads along the Gila River, remained missing and was presumed drowned. Skid marks that would match his missing Ford Bronco were found near the washed-out approach to the Skousen Road Bridge north of Sacaton.

The first death attributed to the flooding was that of Diane Eckert, 39, of Chandler, on Saturday. A truck in which she was riding became stuck in raging waters of the Gila River at Indian Route 587, northwest of Sacaton.

Cochise County on Thursday became the 12th Arizona county to be brought under a federal disaster declaration made earlier in the week by then-President Bush. The only three counties that are not under the declaration are Mohave, La Paz and Yuma counties in western Arizona along the Colorado River.

However, officials are watching low-lying areas around the city of Yuma because of water releases of up to 10,000 cubic feet per second from Painted Rock Reservoir, a huge lake 15 miles west of Gila Bend that has captured most of the runoff through the Valley from the Salt, Verde, Gila, Santa Cruz and Agua Fria rivers.

In addition to the Gila River Indian Community and the San Carlos Apache Reservation, other Native American groups under the federal-disaster declaration are the Navajo and Hopi tribes.

No new major evacuations were reported Thursday, said Karan Paulsen, spokeswoman for the Arizona Division of Emergency Management.

Eastbound lanes of Interstate 8 south of Casa Grande were open Thursday after being closed the day before due to high water in the Santa Cruz River. A possible closing of Interstate 10 south of Phoenix never materialized Thursday when waters in the Gila River began receding.

Contributing to this article was Frederick Bermudez of *The Arizona Republic*.

## 587 homes lost, damaged by floods

**By Steve Yozwiak**
The Arizona Republic

While federal authorities moved into Arizona on Thursday to begin providing disaster relief, the American Red Cross reported that 587 homes were damaged or destroyed by this month's floods.

The worst damage was in Gila County, where 101 single-family homes, apartments or mobile homes were destroyed and 52 others damaged. Most of those destroyed were in the Winkelman Flats neighborhood in Winkelman.

Homes also were destroyed or damaged in Coconino, Greenlee, Maricopa, Navajo, Pima, Pinal and Yavapai counties, the Red Cross reported.

The Red Cross has provided more than 27,000 meals and given shelter to more than 200 people since the floods started Jan. 9.

The first truckloads of blankets, clothing and other supplies collected by Arizona Public Service Co. and KTVK-TV (Channel 3) were scheduled to arrive early today at Verdugo Hall in Hayden, which is serving as an emergency relief center.

The television station and APS teamed last week to collect toiletries, personal-care items, clothing, blankets and games for an estimated 1,100 needy people in Winkelman, Kearny, Riverside, Kelvin, Hayden and Dudleyville. Donations are being accepted at the 45 APS customer-service offices statewide.

Smith's Food & Drug Centers delivered 2,000 gallons of purified water to a Red Cross disaster-relief center in Globe on Thursday.

Besides shelter, food and first aid, the Red Cross is providing additional assistance at four service centers in Winkelman, Camp Verde, Leupp and Winslow. The Winslow center, however, is scheduled to close at noon today.

More information is available by calling the Red Cross hotline at 1-800-452-9579.

Tax-deductible donations can be made to the American Red Cross, Disaster Relief Fund, P.O. Box 17090, Phoenix, AZ 85011.

Meanwhile, those who want to apply for federal disaster grants and loans may call 1-800-462-9029.

Federal relief offices are expected to be opened by Saturday throughout the state.

# Arizona inundation old story

## Even storage dams often inadequate

**By James E. Cook**
The Arizona Republic

Ironically, one reason for the construction of Roosevelt Dam, and the other Salt and Verde river dams that followed, was to control floods that periodically ravaged farms and towns in the Salt River Valley.

The other reason, of course, was to store water so farmers could use it during sometimes-prolonged dry spells.

Release of that stored water periodically threatens the Phoenix area, as it does now.

Newspaper reports and official weather observations compiled by the University of Arizona suggest that hundreds of floods have rampaged through Arizona during the past 115 years.

Summer "monsoons" or winter storms from the Pacific tax the ability of desert soil to absorb water and of shallow streambeds to handle the runoff.

In February, 1892, the Salt River Valley experienced its worst flood since modern settlement began in 1867. Residents heard an ominous roar from the Salt, which soon flooded areas that are now part of downtown Phoenix, dissolving many adobe dwellings and leaving hundreds homeless.

During a flood in 1897, a newspaper writer likened downtown Phoenix to a busy harbor and punned, "The City Hall bell was ringing wet tonight."

Roosevelt Dam was dedicated in 1911, and the other dams followed.

Floods occasionally have collapsed earthen dams in other Arizona watersheds.

Just after midnight Feb. 22, 1890, Walnut Grove Dam collapsed as heavy rain taxed the holding capacity of the earthen structure. The breach released a 900-acre lake into the narrow canyon of the Hassayampa River north of Wickenburg.

No accurate death toll is available, but newspapers of the time speculated that 60 to 70 people drowned. A mining camp named Seymour, south of Wickenburg, simply disappeared.

Some other memorable Arizona floods:

- As many as 50 homes and businesses collapsed in Tucson after 5.3 inches of rain fell in 70 minutes on July 11, 1878. The storm was widespread: Two Army lieutenants on horseback drowned when a flood swept through a canyon in the Chiricahua Mountains.

A 1985 University of Arizona study, "Climate of Arizona," said the leading cause of weather-related deaths in Arizona always has been flash floods.

- On Labor Day weekend in 1970, 28 people died when heavy rains fell in the Payson-Mogollon Rim area. One measuring station reported 11.4 inches of rain. Water rolled off ground already saturated by summer rains and gathered in canyons to rush toward the Salt and Verde rivers.

A Department of Public Safety officer was killed when he drove his patrol car into Sycamore Creek on Arizona 87, where a bridge had been washed away by the flood.

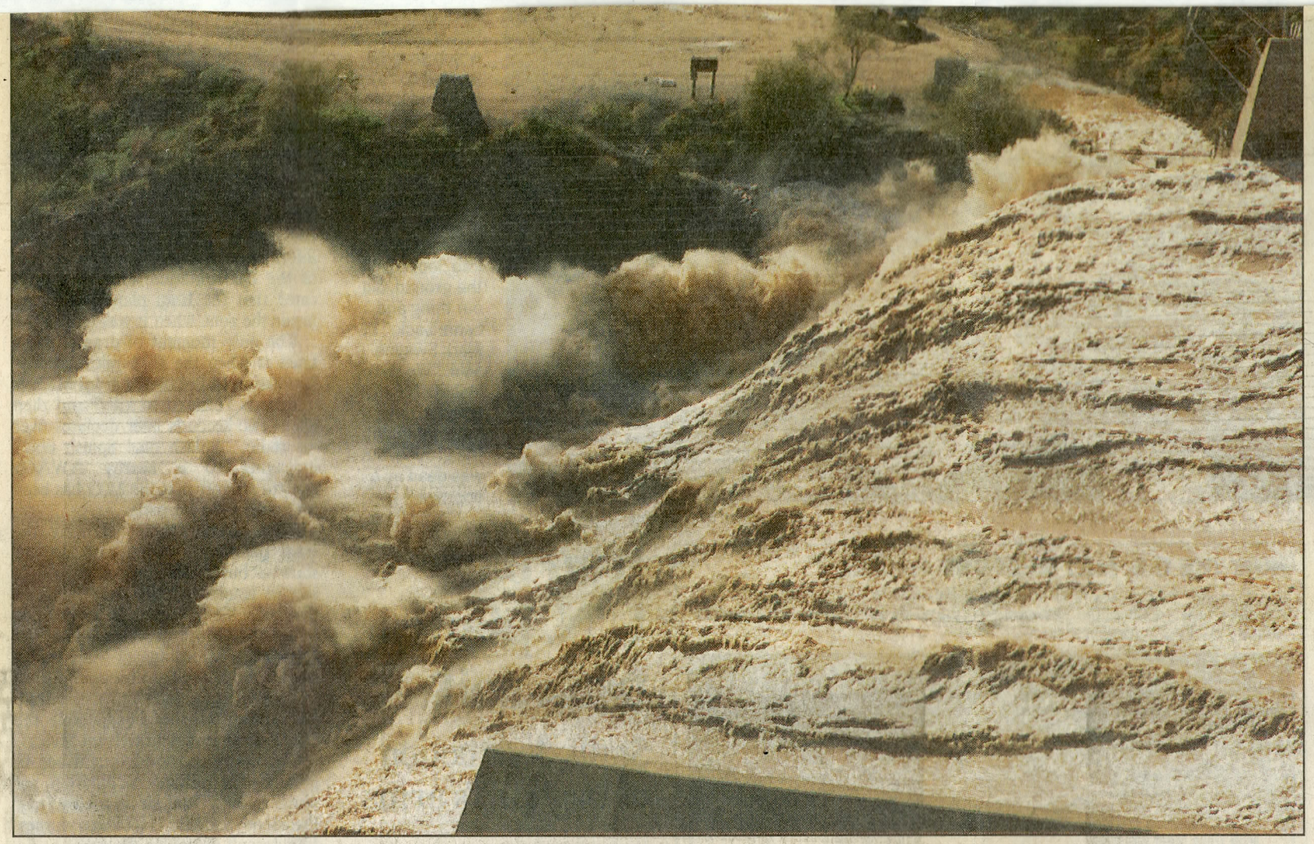
- Releases into the Salt River in late February and early March 1980 cut the Valley in two, destroying most river crossings. One durable link, however, was the Southern Pacific Railroad trestle spanning the Salt at Tempe.

With help from the Southern Pacific Co. and Amtrak, the state Department of Transportation assembled a seven-car, dual-locomotive commuter train. Temporary passenger stations were opened in Mesa, Tempe and Phoenix.

- Several days of rain beginning Oct. 1, 1983, caused devastating floods in several areas of southern and eastern Arizona, ultimately killing 15 people and causing an estimated $300 million in damage.

The hardest-hit towns were Clifton, Tucson, and Willcox, where Hooker Dam failed, releasing a wall of water 8 miles wide.

According to some newspaper accounts, that may have been Arizona's costliest flood.



Michael Ging/The Arizona Republic

On the Verde River, water surges over Horseshoe Dam's spillway. The floodgates on the dam along the Maricopa-Yavapai county line were wide open Friday.

Victoria Buckner/The Arizona Republic

Judy Hill, who lives near the confluence of the Gila and Salt rivers, has a system for dealing with floods. When her log home is threatened, she and her husband, Jerry, suspend their furniture from the ceiling's log beams.



# Waste flows into waters from sewage, landfill

By Steve Yozwiak
The Arizona Republic

The worst floods in a decade raced through Arizona on Friday, forcing evacuations of homes, damaging at least one bridge, and washing waste from a controversial landfill and from sewage-treatment plants into rivers.

The flooding could worsen dramatically with more rain forecast this weekend, possibly endangering homes and bridges along the Salt River through Phoenix.

Although several people had to be rescued Friday from swollen streams, there were no reported deaths.

"It's like a giant river of milk chocolate," Gov. Fife Symington said as he watched the roaring Salt River erode the Tri-City Landfill north of Mesa during the afternoon.

Rains forecast for the next week could force the Salt River Project to double its current releases of water from dams upstream into the swollen Salt River, threatening parts of the Valley with the heaviest flooding since 1980, said Darrell Jordan, SRP's manager of water-resources management.

Bridges and washes across the Salt River were closed Friday night at these points: 35th, 51st, 67th, 91st avenues, McKellips and Gilbert roads, and all unbridged washes, said Sgt. Jay Ellison of the Maricopa County Sheriff's Department. He

— See **FLOODS**, *page A 10*

Rob Schumacher/The Arizona Republic

Floodwaters churn around a span from Tempe's half-built Mill Avenue bridge after a plywood span collapsed. The Salt River was running at 80,000 cubic feet per second Friday when portions of the bridge started falling.

## MORE INSIDE:

**BRIDGES:** Six spans are closed, and floodwaters tear down part of another under construction, **A11**

**ARIZONA:** Numbers tell the story around the state, **A11**

**Q&A:** Answers to some questions about the flooding, **A20**

**LANDFILL:** Floodwaters breach dump north of Mesa, sending debris into Salt River, **B1**

- OVER

# Floods hit state, more rain on way

## Half-built Mill Ave. bridge damaged, other Salt River crossings closed

# Floods roar through Arizona

— **FLOODS,** *from page A1*

said these crossings likely would be closed for days.

Grand Avenue was closed from 101st to 111th avenues.

Earlier Friday, the governor declared a "statewide flood emergency," a first step toward obtaining state and federal aid for victims.

Dams along the Salt, Verde and Agua Fria rivers seemed to be operating normally, though Roosevelt Dam has "lots of construction at risk" because of rising water, Symington said after an observation flight.

Two more storms are expected to sweep through central Arizona by Wednesday and together could drop an additional 2 inches of rain on the watersheds of the Salt and Verde rivers, said Anton Haffer, area manager for the National Weather Service.

Rain again is expected in Phoenix tonight and "we expect most of the state to be under rainfall, heavy at times, during the day on Sunday," Haffer said. Rain also is expected Tuesday night and Wednesday.

The most recent storm dumped as much as 7 inches of rain — the amount of rain the Valley gets in an average year — on some parts of the central Arizona watershed including both the Salt and Verde basins.

The National Weather Service extended flash-flood warnings until 9 a.m. this morning for Maricopa, Gila, Pinal and Yavapai counties.

The Verde River, before it reached the dams, raged Friday at up to 190,000 cubic feet per second — about 10 times the average Colorado River high. Some trailer parks along the Verde and its tributaries were evacuated. The Salt River tore through the Valley at up to 150,000 cfs.

Friday's flooding marked the Salt River's highest flow since a 1980 flood, when it reached 180,000 cfs, said David Carpenter, deputy meteorologist for the Weather Service.

Two spans of the new Mill Avenue bridge under construction in Tempe were destroyed. Even though the old Mill Avenue bridge was not closed to traffic, officials were keeping a close watch to make sure debris from the new bridge did not damage supports on the old, said Officer Dick Steely, Tempe police spokesman.

One of the more dramatic rescues took place late Thursday night, when Prescott firefighters pulled an 18-year-old Cottonwood woman from raging Dry Beaver Creek near McGuireville.

Yavapai County Sheriff's officers said Amy Janes was canoeing on the creek when her boat overturned. She grabbed a tree and held on for seven hours until rescuers arrived, she told officers. The tree was about 40 yards offshore in the middle of a river that is usually dry but on Thursday was nearly 400 feet wide.

Near Tucson, Pima County sheriff's deputies said a 40-year-old man was hospitalized with hypothermia after he ignored deputies' warnings and tried to cross a swollen segment of Tanque Verde Wash. Witnesses saw the man, identified as Robert Hewett, carried away by strong currents. He was found about 90 minutes later clutching some brush and was airlifted to a local hospital.

In Phoenix, the 35th Avenue bridge was closed at 2 p.m. but not before water rushing over its southern access nearly killed two people.

Phoenix police Sgt. William Johnston said the people were stranded on an island surrounded by raging waters and had to be rescued by police helicopter.

North of Cave Creek early Friday, a man who discovered a foot of water running through his house was rescued about four hours later by a television news helicopter, said Matt Phillips, spokesman for the Rural/Metro Fire Department.

The man, Michael Harris, lives in a wash but took refuge inside a pickup truck that was sitting on a high spot and called authorities by using a portable telephone, Phillips said.

"We arrived and found him pretty much stranded on an island," Phillips said. "He was talking to other people on the telephone when we were out there."

Four dogs and a cat also were rescued at the site.

But a cat that fell into the Salt River near Central Avenue was not so lucky. One man waded out into the water to reach the animal, but

— *See* **FLOODING,** *page A11*

# Flooding closes bridges, forces evacuations throughout Valley

— **FLOODING,** *from page A10*

Phoenix firefighters at the scene ordered him out because of the danger that he, too, would be swept away. The cat then was swept out of view and was not found.

Phoenix police officers stopped at squatters camps scattered along the river bank, warning homeless residents to leave. If no one was there, the officers left notes to alert them to the dangerous conditions.

High water in arroyos made many roads impassable for school buses, and school was canceled for thousands of pupils throughout the state. A Friday-night basketball game at Cactus Shadows High School also was postponed, and New River Elementary School was encircled with sandbags "as a preventative measure" against rising waters in New River, east of the school, Principal Patrick Lahaie said.

SRP officials said they believe they have been prudent in operating the dam system, leaving additional flood capacity at Roosevelt Dam while it's under expansion. If SRP had left more room in the dam system, officials said, they would have run the risk of not having enough water this spring.

"I don't think these kinds of releases were anticipated" because of heavy recent rains, Sen. John McCain, R-Ariz., said before taking a 90-minute helicopter ride with Symington, SRP officials and the Army Corps of Engineers to survey the floods.

Phoenix Mayor Paul Johnson and Street Transportation Director Jim Matteson also flew over Phoenix to assess problems.

"If some type of (dam) breach took place, we are prepared to do any evacuation that we would need," Johnson said.

Officials said it's too early to make authoritative comparisons to the big floods that struck the Valley in 1978, 1980 and 1883. The "100-year flood" in February 1980 caused an estimated $63 million in damage.

Then-Gov. Bruce Babbitt to declare a state of emergency in Maricopa, Gila and Yavapai counties. Four days later, President Carter declared the three counties major disaster areas, opening the door to about $21 million in federal aid.

Where the gushing Salt and Verde rivers met above Granite Reef Dam, the Verde was by far the most powerful and the most spectacular. From the air, its raging torrents sliced directly into the flow of the Salt, almost seeming to choke off the other as it thundered downstream — darker, swifter and with more treacherous rapids.

Jeff Boatman, a veteran helicopter pilot for Air Services Air Charter, said the impressive scene along the Verde reminded him of the floods that devastated the Valley in 1980.

"I haven't seen the river flow like this in a long time," Boatman said.

At Horseshoe Dam, which creates the Horseshoe Reservoir along the Maricopa-Yavapai county line, the floodgates were wide open as water surged from the spillway and roared downstream with awesome force, leaving a trail of white foam for more than a mile below the dam.

Along both the Salt and Verde, the runoff in normally dry desert washes afforded rare glimpses of countless waterfalls in the cliffs and mountains above the two rivers.

There were occasional boaters on Apache and Canyon lakes, braving the muddy waters and the debris that seemed to choke portions of both lakes.

Maricopa County officials have evacuated an area from 105th Avenue to the Agua Fria River, south of Southern Avenue to the Gila River, said Bob Bishop, director of emergency management for the county.

# Flood evacuations in the state

## Several schools get 'rain day' off

**By Mark Shaffer**
The Arizona Republic

Numbers told the story of upheaval, from one corner of the state to the other:

More than 500 people in Winkelman and near Tucson and Camp Verde had been evacuated from their homes by Friday afternoon.

About 350 of them were evacuated Thursday night from low-lying areas along the Gila River in Winkelman, about 70 miles north of Tucson.

That was followed by the evacuation of about 65 families in the Tanque Verde area on the outskirts of Tucson on Friday morning.

And Camp Verde marshal's spokeswoman Sharon McCormack said 30 people were evacuated about noon Friday from a trailer park at Verde Lakes, south of Camp Verde, and a National Guard helicopter was used to successfully evacuate about a dozen other people stranded by high water in the Verde River.

Logs believed to have come from a debris dam on an upstream creek crashed down the Little Colorado River past Winslow as the river rose to within a foot of the Interstate 40 bridge Friday night.

Authorities urged residents between Winslow and the southwestern Navajo Reservation community of Leupp to move out and said those living at Cameron should be prepared to move today.

Navajo President Peterson Zah also declared an emergency in the Birdsprings and Leupp areas, where Arizona's Emergency Management Department sent helicopters to evacuate Navajo families.

Small-scale evacuations also were conducted in Marana, Sedona, Winslow and Wickenburg.

Water in usually dry places created problems in Prescott, where the city's 5,200 pupils got a vacation day.

"Our major concern was the safety of the kids," said Jim Howard, superintendent of the Prescott Unified School District. "Our buses have 18 routes, and we figured we'd have major problems (with high water) with at least seven of them."

Howard said Friday's was the first "rain day" in his eight years as superintendent.

Several schools in Tucson, Marana and San Manuel also were closed, and other schools in outlying areas held classes but canceled bus service.

Federal officials began releasing water from Coolidge Dam, 35 miles southeast of Globe, on Wednesday because of rising water levels.

The dam was releasing 1,200 cubic feet a second at midday Friday, and releases were expected to increase to 1,700 late Friday. About 30,000 cubic feet per second were entering San Carlos Lake late Friday from the flood-swollen Gila, said Barry Welch, spokesman for the Bureau of Indian Affairs.

In Williams, storm water overflowed into a sewage line and flooded a main street, causing the Arizona Department of Environmental Quality to set up barricades.

Sewage overflowed from manholes in Flagstaff, Payson, Prescott and Pinewood, and well casings sometimes were under water. Residents were urged to boil their water.

Meanwhile, in eastern Arizona, residents of Clifton, which was ravaged by floods in 1980 and 1983, kept a wary eye on the San Francisco River, which passes through the center of town.

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Contributing to this article were Fred Smith and Abraham Kwok of *The Arizona Republic,* and *The Associated Press.*

ARIZONA REPUBLIC
JAN 9, 1993

# Saturated soil adds to river flows

Here are some whys and what-to-dos concerning the flooding in the Valley.

**Q**UESTION: Why is this happening now?

**A**NSWER: Friday's flooding was set up by heavy rains last week and then again this week. Some areas that drain into the Salt and Verde rivers received 7 inches of rain from Wednesday to Friday. The earlier storms had saturated the ground, leaving nowhere for this week's rainfall to go except into streams and washes as runoff. About two-thirds of the water surging through the Valley's normally dry Salt River bed Friday was coming from the swollen Verde River. Roughly 110,000 cubic feet of water per second was being released from the Granite Reef Dam, which is below the point where the two rivers converge.

**Q**: What will the weather be like through the weekend?

**A**: Forecasters say the skies will be partly cloudy in the Phoenix area this morning and afternoon, with scattered fog. The clouds are expected to build into the evening, with rain resuming during the night. The National Weather Service has extended flash-flood warnings for Maricopa, Gila, Pinal and Yavapai counties through 9 a.m. today. There is an 80 percent chance of rain Sunday, with some heavy downfalls expected.

**Q**: What are the chances for widespread flooding?

**A**: Possible, but not likely, unless the rivers gets considerably more water than is expected. With few exceptions, the major bridges in the Valley have been built to withstand flows of at least 200,000 cfs — about 50,000 cfs more than is expected. And those estimates are conservative. For example, the bridge that crosses the Salt River at Central Avenue has a capacity of 125,000 cfs, but it withstood the 1980 floods that peaked 178,000 cfs.

**Q**: Is there space left behind the dams to protect the Valley from catastrophic flooding?

**A**: Yes, for now. But it depends on how much rain falls. On the Salt River, Roosevelt Lake still has room for 250,000 acre-feet of water. The two reservoirs along the Verde River, and Horseshoe and Bartlett lakes have 40,000 acre-feet between them, and were not full Friday, but they were filling at the rate of 190,000 cfs.

**Q**: Where can I get sandbags?

**A**: They generally are available at fire stations and public-works facilities. Residents are asked to bring their own shovels. City officials also say that residents can make a sandbag of sorts by filling a plastic bag halfway with water. Individuals are asked to call their local police departments or the Maricopa County Sheriff's Office in an emergency.

**Q**: What major areas of the Valley should be avoided?

**A**: City and county officials say the biggest danger is in an area they have evacuated bounded by 105th Avenue, the Agua Fria River, Southern Avenue and the Gila River. The area will be barricaded by the Maricopa County Sheriff's Office. City and county officials also have closed numerous streets. The major bridges that have been closed are at Gilbert Road and 35th Avenue over the Salt River, and at Arizona 85 over the Gila River, south of Buckeye.

**Q**: What should I look out for when I'm driving to work or elsewhere?

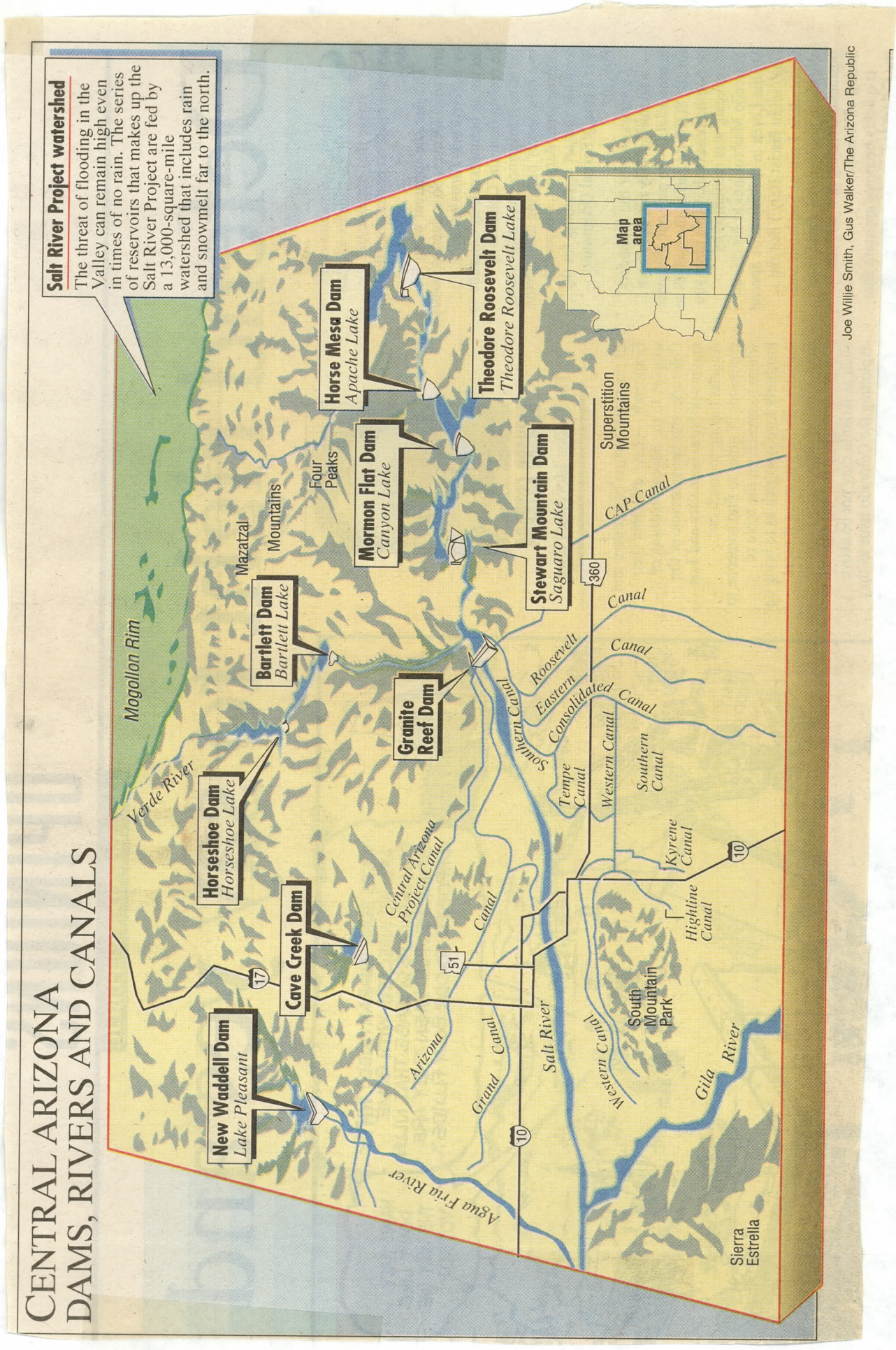
**A**: County officials have some common-sense advice to motorists that sometimes gets ignored: Do not cross anywhere a road is closed. Road and bridge closures will be marked with orange diamond-shaped signs and with mounds of dirt. Officials also advise Valley motorists to stay tuned to television and radio reports warning of areas where streets and bridge are closed.

**Q**: Hasn't this happened before?

**A**: Yes, including a spurt of three so-called 100-year floods that set the Valley awash twice in 1978 and then once in 1980. The February 1980 flood caused an estimated $63 million damage. The floods prompted then-Gov. Bruce Babbitt to declare a state of emergency in Maricopa, Gila and Yavapai counties, and four days later, then-President Carter declared the three counties as major disaster areas, opening the door to about $21 million in federal aid.

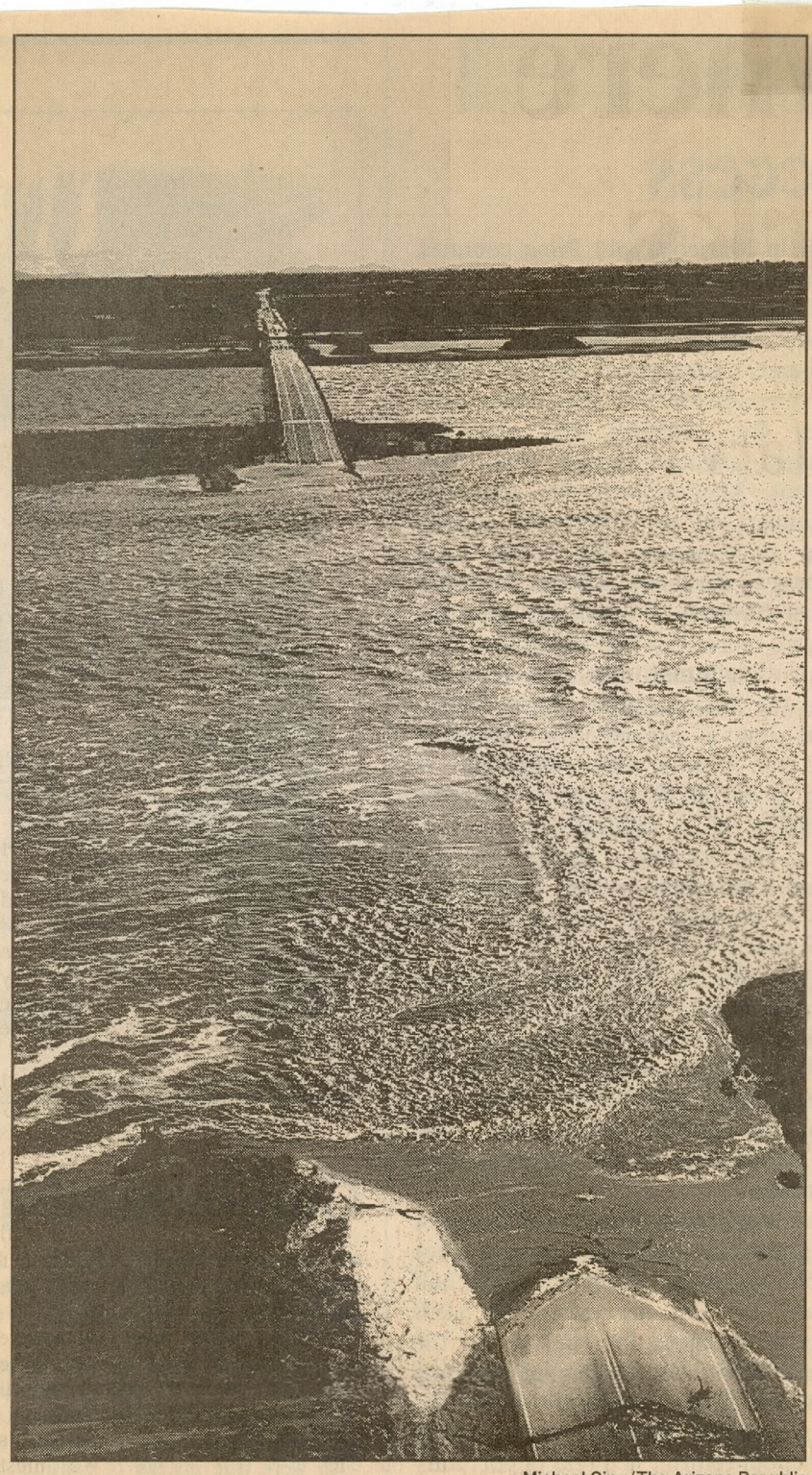
Compiled from reports by David Schwartz, Bob Golfen, Eric Miller and Jonathan Sidener of *The Arizona Republic*.

ARIZONA REPUBLIC
JAN 9, 1993



# Run river, run

## When the water starts flowing in Arizona, you'd better believe it is water with an attitude.



Michael Ging/The Arizona Republic
The Salt River at Gilbert Road. Rains like we've had shake up the status quo and cost a lot of money, but they also reassure us that nature is not a wimp.

**By Lisa Schnebly Heidinger**
Special for The Arizona Republic

When it rains, they run.

Arizona's rivers and washes spring to life after rainstorms like someone's added water to concentrated crystals and created mega-mondo floods. Not just water, filling the dry washes and low dusty beds. Not just runoff seeking larger tributaries. This is surging, unleashed water with an attitude — water with a fist planning a breakout.

I'm standing with by brother Lyle in his driveway looking over the bank of the Rillito River in Tucson. I used to live two doors down; for four years I watched as the rising sun's rays would come in through my bedroom window over the riverbed that was dry in practice even though its job description was to carry snowmelt and rain water. After two raging days of rain last week, it was running double time, bank to bank.

I've never seen it like this: rolling logs, whisking trees, hurling propane cans and other booty in its path, shaving off land as it roars around the bend. It's gabbling earth, shouting — a waterway on a rampage.

### Monster in the wash

Lyle and I, more accustomed to the bland beige sand behind the garage door, are spellbound: nature has created a monster in the wash. We aren't alone; neighbors wander out with umbrellas and video cameras. We shout to one another, partly to be heard over the roar and partly because we're excited.

"Looks like the Mississippi!" yells a bearded man whose two sons are looking longingly over the wall. I agree with him and sympathize with them; I, too, hear the siren song of the water daring us to find out what we're made of. Could we stay afloat in that current? What would it feel like in the chaotic wet brown? It reminds me of the Colorado. I've rafted it twice and this river seems to be moving as swiftly — and with as much disregard for anything human-caused.

It stirs our blood. Lyle and I linger by the wall, almost dizzy from watching the undulating standing waves by the opposite bank. Suddenly we hear a rumble. The hungry water has devoured another bank. Earlier we'd watched a power pole twirl in. A string of stables was folding in farther down.

The man whose property is being repossessed by the river stands on the opposite bank. I don't want him to think we're feeding off his misery as if the destruction is just theater. I cup my hands and yell, "We're so sorry!" He waves. He looks tired.

It's raining hard. Lyle has to go to work. I drive my baby daughter back to her grandparents. I'm skittish, full of energy I can't channel. The proverbial fire horse, I've seen waves I can't raft. I'm wild to explore other bridges, washes; see where else this anarchist water is causing damage in a town I know as dry.

I leave my napping daughter with my mother and run back up to the Rillito. A sinkhole is forming on the path I've run for years. What I know is altered; a parallel universe where Tucson is flooded. A storm makeover.

Where the Swan bridge crosses, I look at the Rillito. It beckons me down the steep bank over the barbed wire. Attraction and fear: what would it be like to be carried away on the teeming tide? Would I be snagged on the fence torn from some riverside pasture now beating against the bridge support?

### Impressed with the creek

Water does this to people in Arizona. Its rare appearance galvanizes us. When we have it, we have it in spades. I hear Oak Creek has jumped its banks and washed out the park at Los Abrigados Resort. I remember touring the area when the resort first opened. My father, who grew up in Sedona, looked at the picnic tables and manicured grass and said, "All this will be washed away someday." I couldn't picture the picturesque creek gaining such power. Later I get married on that plot, walking over a wooden footbridge. This storm has washed away the bridge and left debris four feet high in the trees. I'm sorry about costly destruction, but I'm impressed with the creek. I'm reminded we are not in charge; nature permits us to be here, like a management company making changes on the property. But the true owner can — and does — come in and put things back the way she intends for them to be. Our landscaped lawns and redwood tables are a privilege, not a right, that rain revoked.

We hear about the Little Colorado jumping its banks and flooding Bushman Acres in Winslow — "the part of town where you'd want to live," my mother, a former Winslow resident, said. Not now; it's a custom color sienna flood. Again, people have decided where they want to live, and assumed that where water was, water would stay. They didn't really comprehend that all land within a large area around any riverbed is annexed by a flood. Rains like these shake up the status quo and cost a lot of money, but they also reassure us that nature is not a wimp. The natural order prevails. Humans are tenants, not rulers.

Water in Arizona is like northern lights. Brief, dazzling, powerful; even more meaningful because of its rarity. It is brash and arrogant; always imposing and demanding. We bring our camcorders and lean on the rough wall, for a moment able to watch nature back in charge, making a mess out of the back driveway.

Lisa Schnebly Heidinger is a Phoenix writer.

ARIZONA REPUBLIC JAN. 17, 1993

John Samora/The Arizona Republic

An umbrella turned inside out by winds offers little protection to Niels Koepke, a Tempe man who checked out flooding Sunday under the Mill Avenue Bridge. Meanwhile, in Arlington, about 40 miles southwest of Phoenix, Larry Molina (left), 13, and Daniel Martinez, 11, help clean up the community's school grounds. The school was flooded by the nearby Gila River.

Michael Meister/The Arizona Republic

# Rain covers soggy state, more is due

## But light total lets SRP cut flows in Valley

**By Fred Smith and Charles Kelly**
The Arizona Republic

A saturated Arizona received another dose of rain Sunday, but the amount was light enough that the Salt River Project was able to reduce its water flows through the Valley.

Throughout a gray day, a steady rain fell across the state, under siege since the middle of last week. More rain is expected today, with yet another storm moving in Tuesday, which may cause more flooding.

Sunday's rainfall was light enough that the SRP, which controls water on a 13,000-square-mile watershed in central and eastern Arizona, was able to reduce its flows to 37,000 cubic feet per second from Granite Reef Diversion Dam into the Salt River.

The flows, which peaked at 124,000 cubic feet per second Friday night, have produced the state's worst flooding since 1983.

The SRP reported Sunday night that it will increase the flow from Granite Reef into the Salt to 70,000 cfs by early today because of Sunday's rainfall.

About 700 people statewide have been forced to flee their homes, tons of garbage swept from landfills has been flowing down the Salt River, several schools have been closed, and on Sunday, the National Weather Service said flooding was imminent along the Gila River between San Carlos Lake and Florence.

Near Arlington, southwest of Phoenix, high water in the Hassayampa River took out 60 feet of Gillespie Dam, an earthen structure built to protect farmland from flooding.

No deaths or serious injuries have been reported.

By late Sunday, a half-inch of rain had fallen in the Phoenix area. Three to 4 inches of snow was reported in the state's northern and central

— *See* **MORE,** *page A2*

Christine Keith/The Arizona Republic

Outside the World of Wheels car show at Phoenix Civic Plaza, Michelle Talsma, 6, of Gilbert, opens wide for rain. The girl went to the show Sunday.

-OVER

# More rain hits state, new storm predicted

— **MORE,** *from page A1*

mountains.

Any optimism about a waning flood danger in the Phoenix area had to be tempered Sunday by the forecasts of more rain.

One of the worst problems associated with the flooding has been a flow of debris from the Tri-City Landfill, north of Mesa, down the Salt River. Environmentalists have warned that soaking garbage and sediment will be left in pools along the riverbed once the flooding recedes.

Sen. Dennis DeConcini, D-Ariz., who flew over part of the flood-ravaged area in an Arizona National Guard helicopter Sunday, said the Salt appeared to be a wasteland of soaking rubbish from the heavily damaged landfill, owned and operated by the Salt River Pima-Maricopa Indian Community.

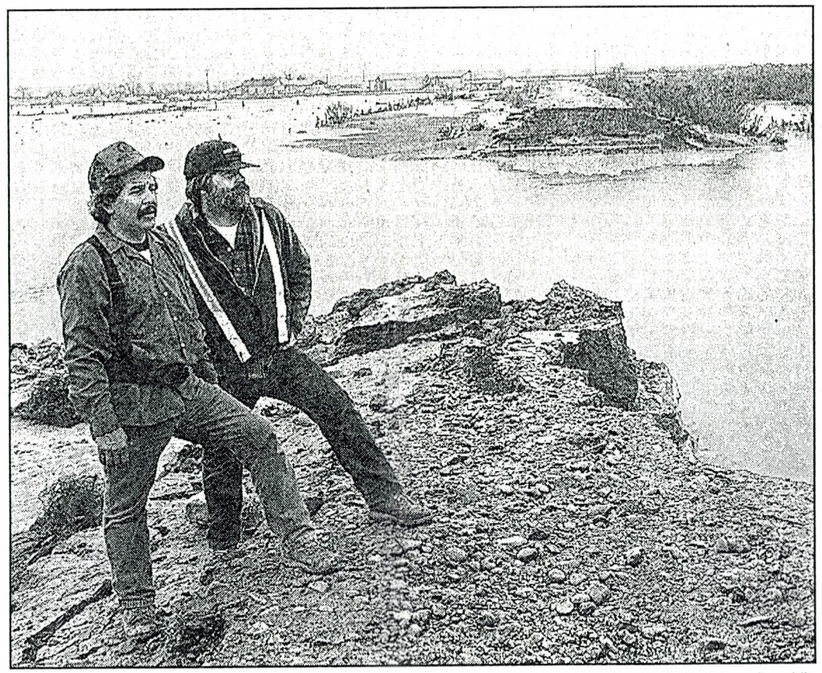
"That's a small disaster, is the best I can say," DeConcini said, adding that he hopes to get funds for the Army Corps of Engineers to study how to protect the dump in the future.

Because of the widespread flooding, the state Division of Emergency Management said Sunday that it has earmarked $100,000 for use in Winslow and in eight counties: Yavapai, Coconino, Pima, Gila, Maricopa, Graham, Apache and Greenlee.

On Friday, Gov. Fife Symington declared a state of emergency, which would help bring in federal aid.

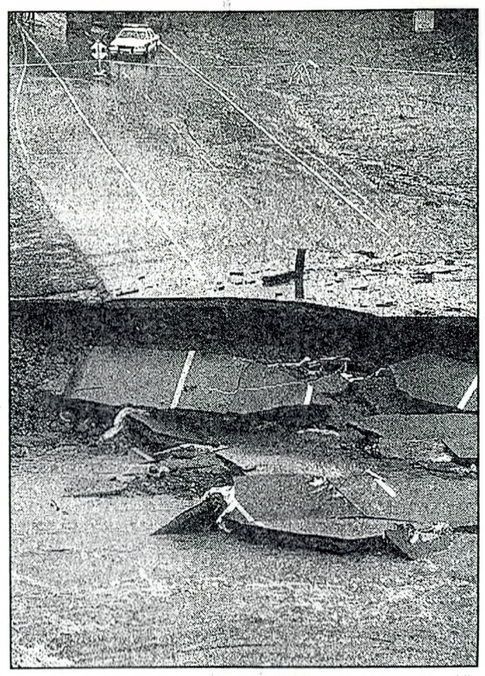
The Weather Service late Sunday issued a flash-flood warning for the Gila River communities of Hayden, Kearny, Kelvin, Riverside and Winkelman in southeastern Arizona.

In eastern Arizona, water pouring into San Carlos Lake from the Upper Gila and its tributaries will force record releases from Coolidge Dam into the Gila River, west of the lake. Those releases were 5,000 cubic feet per second on Sunday but will be increased by today, authorities said.



Jerry Kammer/The Arizona Republic

Bill Lucero (left) and Mark Murrey of the Navajo County Road Department stand at a dike that broke Friday on the Little Colorado River, forcing the evacuation of hundreds of Winslow-area residents.



John Samora/The Arizona Republic

Tempe police on Sunday block the Mill Avenue underpass, which has been washed out by the Salt River.

About 300 residents of Winkelman Flats along the Gila were evacuated from their homes Thursday and remained away late Sunday.

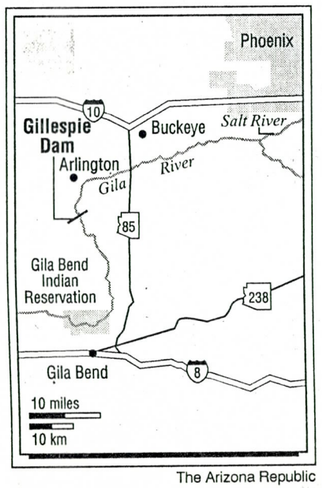
A weekend lull from last week's heavy downpours permitted many Arizonans to begin cleaning up.

"Talk about messes — we're deep in it," said Arlene McKeeby, who owns the Desert Rose Cafe in the farming community of Arlington, about 40 miles southwest of Phoenix.

"We've got roads blocked, farm fields flooded — you name it."

High water from the nearby Gila River, which receives flows from the Salt and Hassayampa rivers, also flooded the Arlington School, which serves 132 pupils.

Also in the Arlington area, flooding occurred at a 1,400-acre cotton farm operated by Randy Vanosdell, his parents and other family members about two miles upriver from Gillespie Dam. Water from the Hassayampa inundated the farm, and on Saturday, water was a foot deep in the six homes on the grounds.




The Arizona Republic

"It's gone down some now," Vanosdell said Sunday. "The water's out of the houses."

About 1,000 telephone customers in Rainbow Valley, southeast of Buckeye, lost service when flood-waters damaged phone lines crossing the Gila River, said Dave Banks, a spokesman for U S West.

Service was restored late Sunday by setting up trucks with microwave dishes on both sides of the river and beaming signals across, Banks said.

Receding water west of Phoenix permitted 200 residents of Holly Acres to return to their homes. They were evacuated Friday.

But in Winslow, about 300 residents living in Ames Acres on the north side of the city were told to leave their homes Sunday evening for the second time because of flooding in the Little Colorado River.

Police Lt. Wayne Wagner said about 200 men were working to repair a broken dike along the river, where flooding Friday night forced the first evacuation of nearly 300 people.

The Little Colorado River, which usually is no more than a few yards wide and a foot or two deep, swelled Friday night to a width of several hundred yards. Its chocolate-brown waters topped an 8-foot dike along the 150-foot section that failed.

On the Navajo Indian Reservation about 50 miles northwest of Winslow, 51 people in three locations were evacuated Sunday afternoon because of flooding of the Little Colorado.

Arizona National Guard helicopters evacuated six families, a total of 30 people, from Bird Springs, and a boat rescued a family of five trapped between Bird Springs and Leupp. At Indian Wells, six families were evacuated.

Traffic corridors that remained closed Sunday included Arizona 85 and old U.S. 80, both southwest of Buckeye. Arizona 99 between Winslow and Leupp was reopened Sunday.

Falling water levels in the Salt River enabled Phoenix to re-open the 35th Avenue bridge over the river.

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Contributing to this article were Jerry Kammer and Gail Tabor of *The Arizona Republic.*

ARIZONA REPUBLIC FEB. 24, 1993

# Prices rising with flood

## Yuma County braces for big losses, evacuations pick up

Mike Ging/The Arizona Republic

Workers harvest a lettuce field on the Murdock farm at Roll. Shirley Murdock, whose family has 1,200 acres of prime farmland stretching down to the Gila River and fronting it for a half-mile, was trying to beat the clock Tuesday to save her plentiful, newly matured crop of iceberg lettuce.

## Seasonal jobs to be lost along with farmland

**By Guy Webster and Mark Shaffer**
The Arizona Republic

The Gila River's inevitable flooding in Yuma County is raising vegetable prices already, will end hundreds of seasonal agricultural jobs this week, and is expected to cause tens of millions of dollars in losses over 20,000 or more acres of some of the nation's most productive farmland.

The pace of evacuations picked up Tuesday for more than 3,500 people living in lowlands as increasing amounts of water rushed down the Gila from Painted Rock Dam.

Federal dam officials raised their prediction of the coming week's peak flow by about 50 percent, to 45,000 cubic feet per second. The flow has been at least 12,000 cfs for more than a week, but is expected to reach 16,000 cfs today and 22,500 cfs Thursday.

**Related stories**
**DEJA VU:** Gila flooded same area in 1927, **A2**
**RIVERS:** Moving to clean up Salt and Gila, **B3**

Wholesale-lettuce prices jumped by about half Tuesday, or 25 cents a head.

About 500 workers will lose jobs when a Yuma lettuce-processing facility closes Saturday, about eight weeks earlier than planned. Because of the expected damage to fields and roads, Fresh Express, a division of Bruce Church Inc., decided Tuesday to move the operation to Salinas, Calif., this weekend instead of in

— *See* **YUMA COUNTY**, *page A2*

ARIZONA REPUBLIC
FEB. 24. 1993

— OVER

# Yuma County bracing for flood's worst

— YUMA COUNTY, *from page A1*

April, plant manager Bryan Aguirre said.

Of about 600 employees at the plant, only about 100 will make the move. The facility chops and bags lettuce for restaurants nationwide. Meanwhile, the company has speeded harvesting from fields likely to be affected by flooding.

Church is one of several large produce companies that harvest lettuce in the Yuma area each winter and in Salinas each summer.

## Seasonal jobs to be lost

Many seasonal farm-worker jobs in the county also will be lost when the floods ruin crops or make fields inaccessible, said Don Howell, Yuma County agricultural agent for the University of Arizona Cooperative Extension.

Yuma County supplies most of the winter lettuce consumed in the United States. Two-thirds to three-fourths of this season's Yuma crop already has been harvested, but the harvest normally continues until early April.

About $7 million to $10 million worth of unharvested vegetables probably will be lost to the flood within the next few days, Keith Kelly, director of the Arizona Department of Agriculture, predicted Tuesday.

"We know there's a disaster headed down the river," Kelly said, "but we don't know how bad it'll be yet, because we don't have any precedent for it."

He estimated that about 20,000 acres of farmland might be inundated, causing additional damage of about $10 million to fields and ditches.

Other agricultural officials said farm losses could run upward of $100 million. Yuma County has an annual vegetable and grain output of about $275 million, said Mark Wilcox, another UA extension agent.

## Vegetable prices rising

Prices for lettuce, broccoli and cauliflower are rising and are likely to stay high for more than a month until harvests in California replace Yuma County as a supplier, industry sources said.

"The price of lettuce went up $6 a box just today, and the flood hasn't even happened yet," said Willie Itule of Willie Itule Produce Co. in Phoenix.

That's a leap of about 50 percent, to the range of $16 to $17 per 24-head box of iceberg lettuce wholesale. Retail prices will be higher, and prices of other types of lettuce also are rising, Itule said.

Accelerated harvesting before the floods hit will put some small, immature heads on the market, he said.

"People are going to be saying, 'This head of lettuce is the size of a baseball, and the store wants $1.50 for it. What's going on?' They need to realize that in the produce industry, when the price is high, the quality is poor," Itule said.

Tom Nunes Jr., vice president of Nuñes Co. Inc. in Salinas, said, "We're probably looking at 10 to 15 percent of the lettuce we have in the field being affected by the flooding."

Nuñes Co. already has harvested all but about 700 of the nearly 3,000 acres of lettuce it grew in the Yuma area this winter.

## Third of farmland at risk

Howell estimated that the flood will jeopardize about one-third of the farmland in the county.

"It's hard to predict," Howell said. "We don't know how much water will be coming down the river or where it will run or how long it will stay high."

Damaged crops will include alfalfa and recently planted grain, as well as vegetables, Howell said. Also, normal February plantings of cotton and melons may be delayed or prevented.

"Folks, the Gila River is really out there," Yuma County Sheriff Ralph Ogden told a crowd of about 500 who gathered Tuesday afternoon at Arizona Western College for a briefing about the flood.

Ogden said the fertile Mohawk-Wellton Valley east of Yuma is expected to be saturated.

"The whole valley is going to be inundated or cut into a bunch of small islands," Ogden said.

Water officials said they are concerned about the prospect of much more water entering the reservoir.

Another rainy weekend is forecast. There is an estimated 2.5 million acre-feet of snowpack in the high country and, like Painted Rock Reservoir, the reservoirs in the Salt, Gila and Verde river systems are at capacity, said Herb Guenther, a spokesman for the Wellton-Mohawk Irrigation and Drainage District.

## 'Storm of two lifetimes'

"What we've had happen to us is not the storm of a lifetime, it's the storm of two lifetimes," Guenther said.

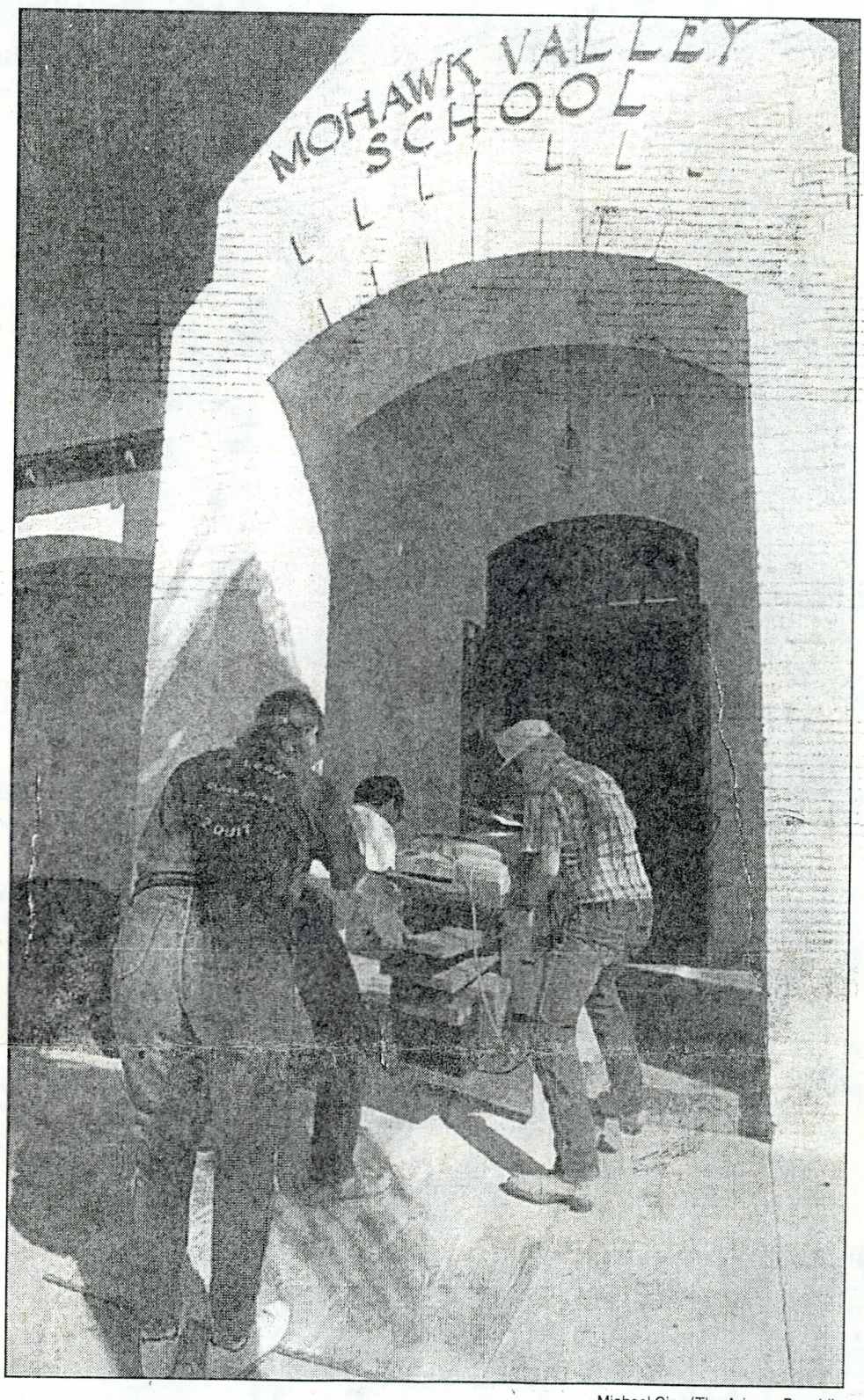
The Army Corps of Engineers has labeled it a once-in-200-years flood.

Nuñes said that his company and others have an assortment of leasing and contract arrangements with landowners and farmers and that terms vary on which party will bear most of the loss if flooding ruins lettuce before harvest.

Bob Woodhouse, a farmer on the northern side of the Gila near Tacna, said his lettuce acreage is leased to a packing company that will take the loss if the crop is damaged. However, his own crops of alfalfa and wheat are also at risk, and he is most worried about damage to the farmland itself and the concrete ditches that carry irrigation to the fields.

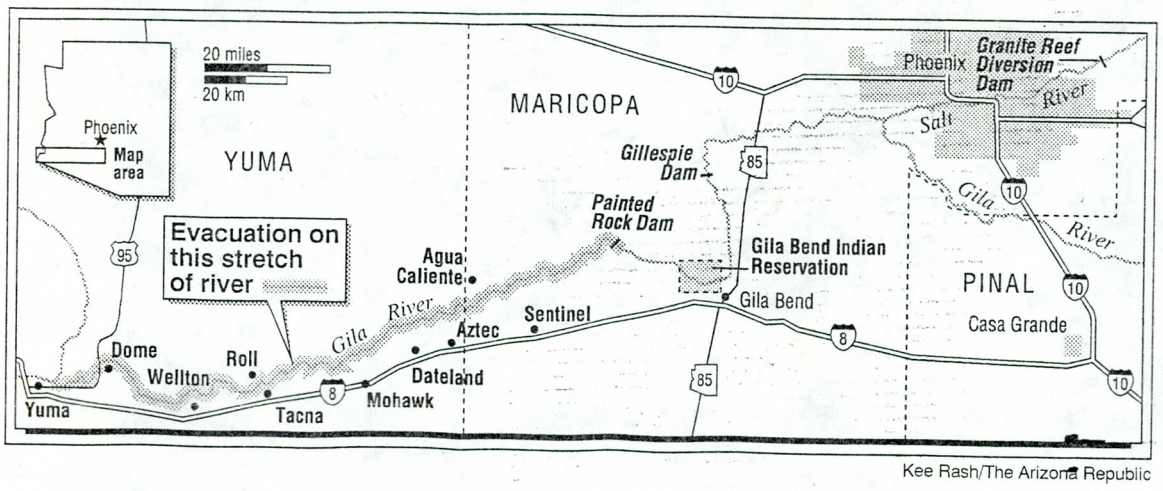
If floodwaters flow over a field, the land probably will need expensive releveling, Woodhouse said. And if rising water just brings the water table close to the surface, it will lift salts that will hurt yields of future crops for several years, he said.

"We may get some (federal) disaster aid, but that won't pay for everything by any means," he said.




Michael Ging/The Arizona Republic

Workers at Mohawk Valley School in Roll move out the last of the office equipment to get it to higher ground. The school is about a mile and a half from the Gila River.




Kee Rash/The Arizona Republic

## Memories of '27 flood

Woodhouse's family already has put one van load of household goods into storage in Yuma and was packing another van Tuesday. If the rising river encroaches on the family home, it'll move into a mobile home available on higher ground, he said.

"My parents came here in 1925, when I was 2 years old," Woodhouse said. "When I was 4, the river got high, so my parents loaded up everything into a Model T and went up into the desert. They sat up there a couple weeks, than came back down. I remember that just a little bit."

As of Tuesday, seven bridges between Gila Bend and Yuma remained open. But the flood is expected to close them by Thursday, including U.S. 95 north of Yuma.

Contributing to this article was *The Associated Press.*

# Yuma flooding turns deadly, worker drowns

## Fast-moving river puts 20,000 acres under water

By Mark Shaffer
The Arizona Republic

YUMA — Water from the overflowing Gila River has claimed its first life and inundated an estimated 20,000 acres of fertile farmland.

In some areas along the lower Gila, fast-moving water has spread out of the river as wide as 5 miles, law officers said Monday.

A Wellton-area man, whose name was not being released, died shortly before midnight Sunday when the truck in which he was hauling rock to shore up levees ran into a canal near the Wellton-Mohawk Irrigation and Drainage District power plant.

"There was another dump truck following him, and the driver said that there was no sudden departure from the roadway, that he just kind of angled off into the water," said Clyde Gould, manager of the water district.

Hank Green, Yuma County emergency-services director, said sheriff's deputies had not determined the cause of the accident involving the 30-foot dump truck.

Meanwhile, water as deep as 4 feet filled about 30 square miles of fields of bumper crops of lettuce and other vegetables. The flood has sent lettuce prices skyrocketing.

"We don't know what to expect from this thing because water has gotten out of the levees upstream and is coming down the valley all over the place," Gould said. "This is still an expanding event because we won't see the peak flows down here until Wednesday or Thursday."

After flying over the area, Gould estimated the number of acres under water at 20,000 and said earthen dikes are barely containing the water from entering thousands more.

Gould also said numerous electric poles and lines have been knocked down by the water. Power outages were avoided in most cases by rerouting electrical currents, he said.

Officials with the U.S. Army Corps of Engineers said the peak flow from Painted Rock Dam so far was 27,500 cubic feet per second Saturday.

The effects of those releases are expected to be felt in farm fields near the communities of Roll and Wellton today and Wednesday.

The Corps of Engineers said that releases from the dam on Monday exceeded the flow into the reservoir for the first time since Jan. 4. During this period, the reservoir has gone from dry to containing 2.5 million acre-feet of water — more than twice the size of Roosevelt Lake.

The flood has closed all bridges across the lower Gila leading to Interstate 8, and projections show they will remain closed for at least two months, Green said.

**FLOOD BLAME DISPUTED:** Officials and environmentalists counter farmers' allegations, **B3**

The closure of U.S. 95 on Monday clogged a narrow Imperial County, Calif., road that is being used as a detour. That road crosses the Colorado River at Imperial Dam and then runs back into Arizona north of the Gila crossing on 95.

Flood workers were examining a number of alternatives to link the northern and southern sides of the river, including military pontoon bridges and amphibious vehicles, Green said. A Southern Pacific Railroad train delivered supplies across the river for the first time Monday.

About 200 members of the Arizona Army National Guard are assisting with flood relief.

"It's been crazy out here," said Sgt. Roy Ruiz of Tempe. "We've had six trucks on the road all the time since Saturday helping people move their stuff. We've helped about 150 people."

The Guard is purifying water from irrigation dikes for drinking and has set up shower facilities for those who have remained on the river's northern side, Ruiz said.

Down the road from the Guard's encampment, in the community of Roll, Dallas Moser kept his store and post office open Monday, although all of the bridges were closed.

"Boy, that water got close. It was really spooky," Moser said, ringing up hefty sales in beer and cigarettes to guardsmen.

A hasty dike erected Saturday had kept the water from rushing down Avenue 38E in the area of the store, Moser said.

One mile east, a large lake was lapping at the sandbags surrounding Mohawk Valley Elementary School.

Much of the land under water belongs to 63-year-old Joe Rider, he noted sadly, leaning against a rack of chips in the store.

"There's 700 acres of alfalfa out there," Rider said. "It's already cutting a channel through the middle of the place and has washed out all the irrigation lines."

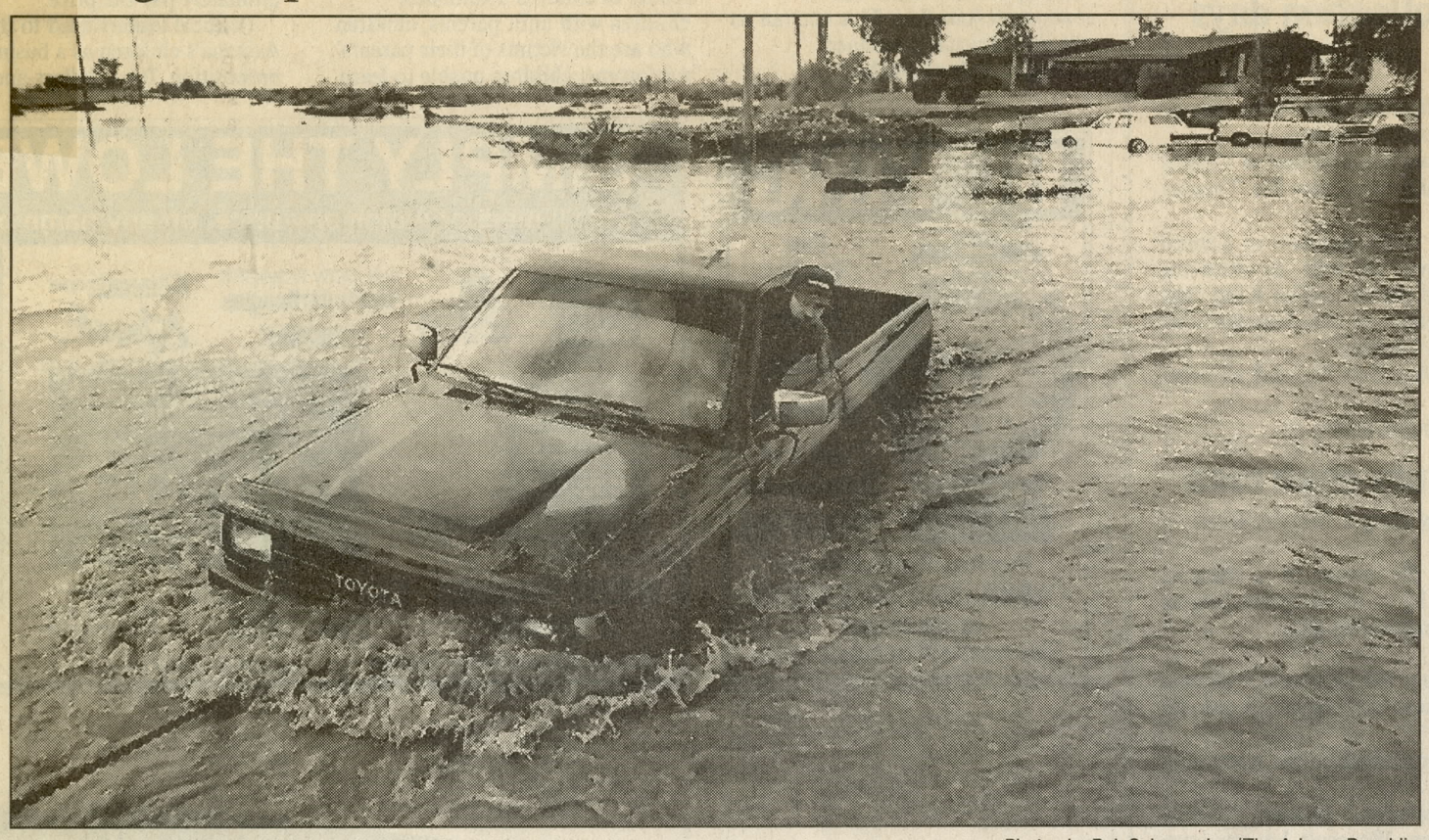
He said he has already been down to a federal Farmers' Home Administration office to inquire about a loan to start over.

"But the truth of the matter is that I'm really too old for this," Rider said.

Michael Meister/The Arizona Republic

**GOING WITH THE FLOW /** He may not find gold, but Shawn Fuehrer, wading through waters at Vista del Camino park in Scottsdale, has a unique way of making money — selling lost items. Recent heavy rains have provided Fuehrer with plenty of areas to search for goodies. His strategy has garnered $600, he said.

## *Salvage surprisssssse*




Photos by Rob Schumacher/The Arizona Republic

A parking lot at Apex Bulk Commodity, 73rd and Southern avenues, fell victim to Friday's floods, and on Saturday, it took on the air of a traveling circus, complete with snake wrestling. When Eric Ring (above) guided a truck as it was pulled from the water, he didn't know there was a surprise lurking nearby. When the truck's hood was opened, there lay an 8-foot snake, curled in the machinery. Van Welty, a Surprise man who was videotaping flood damage, grabbed the reptile by the tail, but after determining that it wasn't poisonous, he set the lucky serpent free. "If it was a rattlesnake, I was going to kill it," Welty said. "But it was a harmless little old gopher snake, so I let it go."

# Flooding will leave 'cesspools'

## Debris from landfills called health hazard

**By Bob Golfen**
The Arizona Republic

Salt River floodwaters, which have swept away tons of garbage and debris from landfills alongside the riverbed, will leave behind filthy pools of stagnant water laced with rotting material and hazardous bacteria, according to a Valley environmentalist.

"That stuff is scattered up and down the (Salt River) system and left in little pockets," said Jim Lemon, an environmental consultant and former hydrologist for the Arizona Department of Health Services.

"It gets lodged in little cesspools, where it decays and it stinks.

"With old tires floating on the surface, it turns septic, and mosquitoes and flies breed. And there are all sorts of vectors for human disease."

On Saturday, the flood continued sweeping away sections of the controversial Tri-City Landfill, north of Mesa. Waste material from the landfill, built along the Salt and used for dumping for the past 20 years, was being churned into the swiftly running water and carried off.

Bill Mundell, an outgoing state representative who last session fought to end dumping at the landfill, called the flood damage "my worst nightmare."

"And people said we were crying wolf last year," Mundell said.

"Obviously, the landfill is washing away, and we may have a major health problem with possible pollution of the aquifer. And the landfill will end up in Buckeye."

But John Godic, spokesman for the Arizona Department of Environmental Quality, took a less dire view of the flooding's environmental effects.

"At the moment, it's really too early to tell," Godic said Saturday.

"Because of the volume and intensity of it (the flooding), it tends to act as an extraordinary dilution system."

Godic visited the Tri-City Landfill, operated by the Salt River Pima-Maricopa Indian Community, on Saturday afternoon to assess the damage caused by the raging Salt River.

"It's probably not very desirable from an aesthetic standpoint," Godic said, "but we're uncertain if there are any health concerns.

"I'm not saying we're not concerned, because we are. But at this point, we just

— *See* **'CESSPOOLS,'** *page B4*

Sunday, January 10, 1993 The Arizona Republic

# 'Cesspools of filth' will linger after floods, consultant warns

— **'CESSPOOLS,'** *from page B1*

don't know."

Godic said the growing area of damage, which he estimated at 75 by 300 feet at the time of his visit, contains mostly building material.

"They constructed the landfill so that principally construction debris was deposited closer to the river, with municipal debris and medical debris further inland, away from the river," he said.

"But things were allowed in that landfill years ago that are no longer allowed in any landfills."

Lemon said there are dozens of other old landfills in and near the riverbed that probably have spewed unknown waste into the floodwaters.

"When you add all the landfills up and their contribution, it's a very significant problem," he said. "There are many closed pockets of debris that are flushing out."

Lemon said the cleanup problem will be expensive and difficult.

"We're left with cleaning out the entire Salt River system, pumping it out, cleaning it up, and it's very difficult to do that," he said, adding that it will also be hard to negotiate who will pay for the cleanup.

"It's a huge problem, a half-mile wide and 20 miles or so long."

Mundell said he and his supporters had warned Mesa, Tempe and Scottsdale that they could be held liable for a cleanup if they did not stop using the dump. Tempe eventually stopped, but Mesa and Scottsdale have continued to bring their waste.

It is cheaper to dump at Tri-City than at other landfills because federal-government regulations don't apply on Indian land.

"We told them there would be massive liability when this thing washed out," Mundell said.

"It may cost the taxpayers of those cities much more money now, millions of dollars more than using alternative landfills, which are available."

The Department of Environmental Quality issued a warning Friday to communities in northern Arizona that flooding and runoff had caused sewage to overflow in and around Flagstaff, Payson, Prescott and Pinewood.

In Flagstaff, sewage was draining into the Rio de Flag, although Godic said there was no danger to water supplies. Some chlorinated sewage was being discharged into Pumphouse Wash and then into Oak Creek.

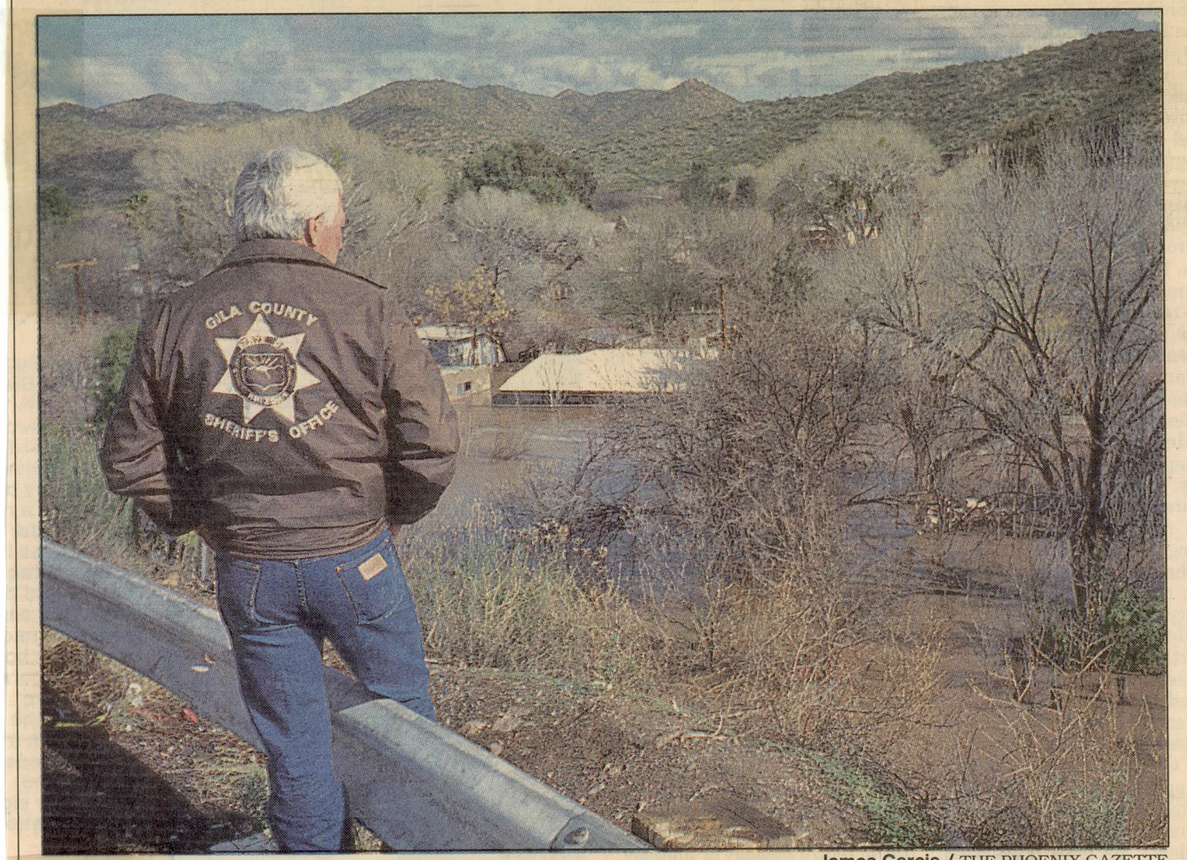
In the Payson and Gisela areas, runoff may have tainted some drinking-water systems, and residents have been advised to boil any water used for consumption. In Payson, sewage is being discharged into American Gulch, and in Prescott, sewage has been reported flowing into Granite Creek and Granite Lake.

Lemon said the filth from the landfills that's not left in pools along the riverbed will be swept downstream, where it will damage riparian areas.

"These areas are rich in birds and waterfowl, catfish and carp and turtles," he said. "You end up with all that junk down there contaminating this area.

"People go there to hunt and fish, and then they eat it."

# Gila County scrambles for disaster plan




James Garcia / THE PHOENIX GAZETTE

**After nearly 400 residents of The Flats section of Winkelman were evacuated, Gila County sheriff's deputies could only stand and watch as the Gila River gradually flooded the area's homes.**

## Everyone ready for dam failure, not flood crisis

**By Victor Dricks, Brad Patten and Glen Creno**
THE PHOENIX GAZETTE

With water just 17 feet from the top of Coolidge Dam, emergency planners are scurrying to fill in the blanks on a plan for dealing with flooding along the Gila River.

Gila County has a plan for dealing with a collapse of Coolidge Dam, but no strategy for dealing with the gradually escalating crisis people there now face, Carmen Corso, director of emergency services for Gila County, said Wednesday.

Unlike Maricopa County, which has a detailed engineering analysis for its dams that spells out the consequences of various disaster scenarios, Corso concedes he is shooting from the hip in safeguarding the public.

"We're doing OK so far," he said. "We haven't lost any lives. But a computer model of the Gila River and how it might behave would help us tremendously in evaluating the overall situation."

**Inside** / A8

Governor offers relief funds, but Winkelman residents say aid won't be enough.

Officials use explosives to sink floating tanks.

It's the kind of work he says should have been done long ago.

"I asked the state for this and I don't know who is working on it, but I'm sure hoping to get it soon," Corso said.

The dam is handling the highest flows since major flooding in 1983, but officials downplay the possibility it will collapse. Coolidge Dam, built 63 years ago, was labeled the most dangerous federal dam in a 1989 Interior Department report.

"This is not the best time to develop a plan, in the middle of an emergency like this," said Chuck Morfoot, a spokesman

See ■**FLOOD,** Page **A8**

PHOENIX GAZETTE
JAN. 14, 1993

-OVER

# FLOOD

From A1

for the Bureau of Reclamation.

"But we're doing what we can. We have been requested to put together a detailed model of how the Gila River may behave under various weather conditions, and that's what we're doing."

Corso said Gila County officials had not prepared such a plan because computer modeling is expensive.

People have been evacuated in several communities along the river. Tensions are increasing as people confront the uncertainty of how much water will be released and whether storms heading for the state will significantly add to the flow.

Gov. Fife Symington visited Winkelman Wednesday. The small town is the closest community to the Coolidge Dam and was the first flooded by increased water flows.

National Guard military police cordoned off a low-lying area known as The Flats, where an estimated 300 residents had been evacuated. In some areas, water was over the tops of houses.

"I've never seen it like this," Gila County sheriff's Deputy George Brunson said. "We've had a lot of floods, but I don't think I've seen that much water."

The sheriff's department ordered more residents and businesses to evacuate Wednesday, bringing the total to leave to about 400.

Residents huddled in the Hayden Winkelman High School cafeteria, where the Red Cross provided hot meals.

"In 1983, they called it a 100-year flood. What is this?" David Lagunas, the school's principal, asked.

Many residents, whose homes appeared to be a total loss, did not carry flood insurance.

> "We loved our home. We were very comfortable. . . . Now it's gone. We will stay in Winkelman, one way or another."
>
> **Ernie Lorona**
> Evacuated with her husband and two children

"We loved our home. We were very comfortable. . . . Now it's gone," said Ernie Lorona, who evacuated with her husband and two children. "We will stay in Winkelman, one way or another."

About 700 people gathered Wednesday night at a town meeting in Kearny. Mayor Ken Huish pleaded with the crowd to ignore rumors and stay calm.

"Please, please, I beg you not to panic," he said.

Sixty houses and 25 businesses were evacuated in the city. The Red Cross set up an emergency shelter at a church to provide food and housing.

Brad Gair, director of the Pinal Country Flood Control District, told the gathering that The Flats in Winkelman, Kearny, a small part of Florence and the Gila River Indian Reservation probably would bear the brunt of the flooding.

James Garcia / THE PHOENIX GAZETTE

**Pauline Valdez (foreground) takes advantage of the shelter ofered at Hayden Winkelman High School Wednesday. About 42 people are using the facility, but most evacuees appear to be staying with family or friends.**

The reservation is particularly vulnerable because most of its land is flat, while many of the cities along the river are built mostly on hills.

"Everyone is talking about Winkelman now, but the reservation is likely to be the hardest hit," Gair said.

Urban Giff, community manager for the Indian community, said about 100 people have been evacuated. The reservation is operating under a state of emergency.

Telephone service to most of the reservation was knocked out when a cable that ran through the river bottom washed away. All grade crossings and many of the bridges leading into the reservation are closed, Giff said.

Giff said he was most concerned about people moving back to flooded areas when the river recedes. He expects more water surges before the weekend is over.

"We're trying to encourage families not to return to their homes until Sunday," he said.

Dam releases were 17,850 cubic feet per second at noon Wednesday, but had dropped slightly by early today to 17,447. The flow was expected to reach 45,000 cfs by 11 p.m. Friday.

Earlier estimates put Friday's flow at 60,000 cfs but were revised when Wednesday's storm proved drier than expected. Gair said the big concern is the combination of water releases and rainfall this weekend.

"It's just a question of timing," he said.

There are also environmental concerns. A tributary of the river has flooded part of a copper leaching operation.

The leaching spill came from the ASARCO Ray Complex into Mineral Creek, a Gila tributary. Kevin Morano, general manager of the complex, said the spill ran into Mineral Creek at about 1,500 gallons a minute.

The spill came from a concrete leaching pit. Morano said the spill was too small to cause environmental damage because of heavy flows in Mineral Creek.

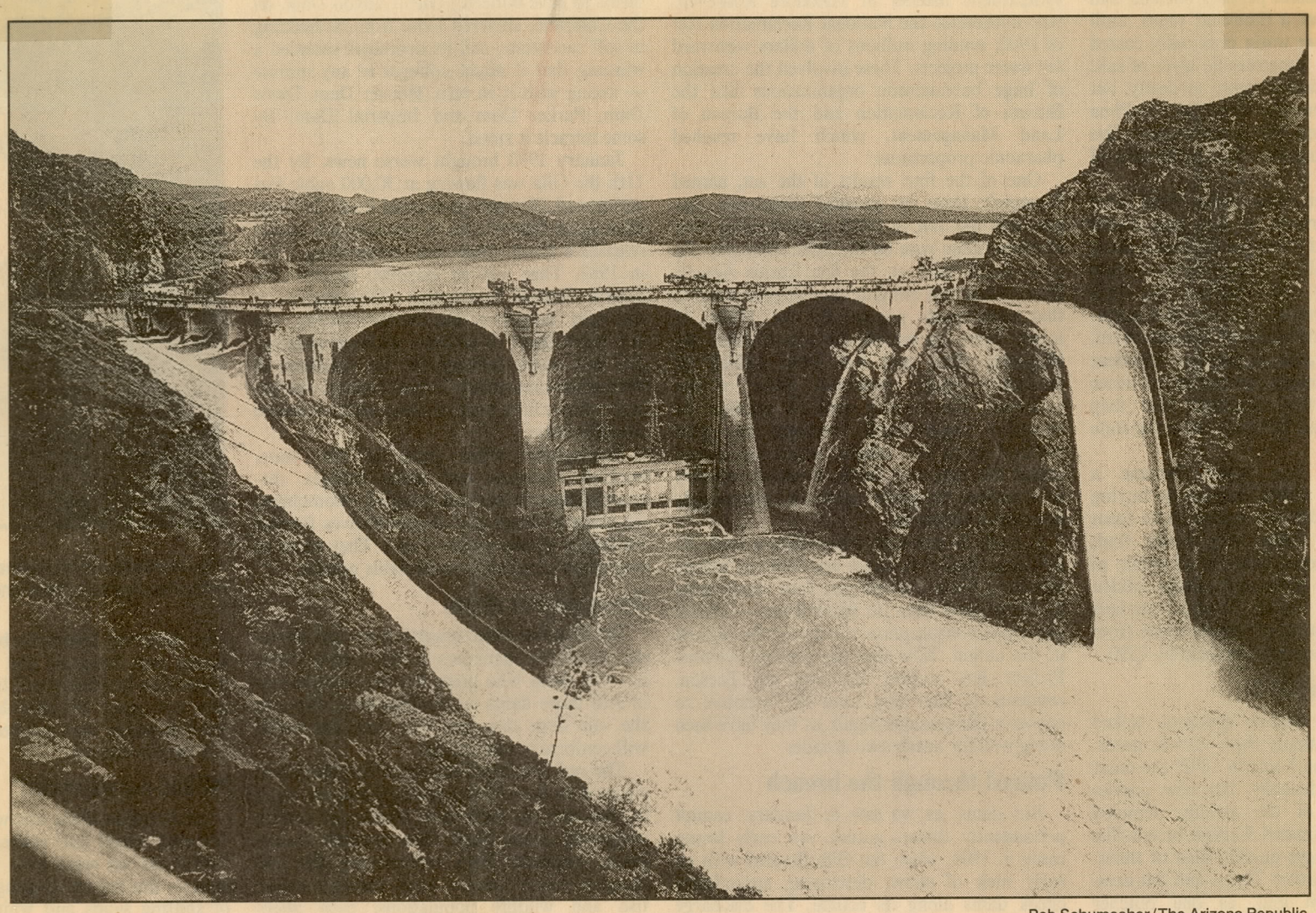
Giff, though, was concerned.

"If there's any breach of those ponds it comes right down the Gila and into here," he said. "We can't stop it."

Sewage from a treatment plant in Kearny is flowing into the Gila. Holding tanks at the plant overflowed, but Gair said the water flow is diluting the waste.

*Includes information from reporters Michael Murphy and Russ Hemphill.*

ARIZONA REPUBLIC FEB. 14, 1993



Rob Schumacher/The Arizona Republic

Coolidge Dam again failed to do its putative job, and it released a dozen times more water last month than it did in 1983.

# Arizona UNDERWATER

*The floods of last month brought home some truths, the biggest being that the job of rivers is to flow. Every obstacle we place in the way of their free movement carries staggering costs.*

**By Gregory McNamee**
Special for The Arizona Republic

There were times last month when I could swear I saw the neighborhood animals lining up two by two.

Still, January's floods came as no surprise to longtime Arizonans. The desert, they know, has its cycles: some years it rains, some years it doesn't. The prevailing El Niño weather system has brought us plentiful rain in the last few years, with wet winters and comparatively dry summers, the supposed "monsoon season." And for the second time in a decade, most of Arizona's rivers surged to so-called hundred-year-flood levels, which, as the name implies, should occur but once in a century. The Verde River did even better, cresting to the thousand-year mark.

The floods had their surprises nonetheless. The developers who chose to build apartment complexes and shopping centers on obvious floodplains wondered why their properties had gone sailing off to Mexico. The residents of Winkelman Flats seemed to be taken aback by the raging Gila, which made off with their horse trailers and toolsheds and homes. Yuma farmers were stunned by their waterlogged fields and damaged crops.

And the engineers who continue to channelize and dam Arizona's streams and rivers, hoping to tame them, wondered why nature refused to submit to our collective will.

## Less lofty ambitions

The first Anglos to arrive in what is now Arizona had less lofty ambitions. They found its rivers to be a natural treasure trove that needed no change. For one, the watercourses were full of beavers — one of the largest dams, containing thousands of individuals, stood near the modern I-10 crossing over the Gila. Beaver pelts fetched $6 apiece in the 1830s, and within a decade the population had been driven nearly to extinction. (No matter; the beaver trappers made their way westward to California and signed on to the whaling trade.) For another, the rivers watered great stands of timber, nurtured lush expanses of bottomland that were ideal for agriculture just as they were.

— *See* **NATURE,** *page C2*

Gregory McNamee, a Tucson-based writer, is the editor of *Named in Stone and Sky: An Arizona Anthology* (University of Arizona Press) and the author of a forthcoming history of the Gila River.

Charles Krejcsi/The Arizona Republic

In 1990 the federal General Accounting Office deemed Coolidge the most dangerous dam in the country, the one most likely to collapse without warning. For two weeks last month, the residents of Winkelman and other Copper Basin towns got more than a little taste of what such a collapse would involve.

— OVER

# Nature gives a lesson

— **NATURE,** *from page C1*

Arizona's indigenous population had long known this fact. The Hohokam, the ancestors of the modern O'odham (Pima and Papago), were building irrigation canals on the Gila and Salt rivers at the time of Christ. They grew huge quantities of beans, peppers, melons, and maize for more than a thousand years, until the mineral-rich river water eventually coated their fields with an impermeable layer of salt. Their descendants farmed more modestly, but the rivers yielded enough crops that the Pima could sell the United States government five million pounds of surplus wheat at the close of the Civil War.

Seven years later, these same Pima were starving. Anglo farmers at two new towns upriver, Safford and Florence, had built dams and diverted the Gila onto their fields — only a trickle of water now reached the Pima Villages, near present-day Laveen and Avondale. A Pima delegation, led by Antonio Azul, traveled to Washington to petition President Ulysses S. Grant for the restoration of water rights. Grant politely suggested that they relocate to the Indian Territory, now the state of Oklahoma.

For the first time water became a commodity in the desert, subject to buying and selling. Anglo farmers rushed in to claim whatever riverside fields they could find; Anglo miners diverted torrents of water to blast hillsides with hoses and release hidden copper, gold and silver; Anglo ranchers brought in great herds of thirsty cattle from Texas, more than three million head by 1890.

## Driven home in 1892

Arizona, it soon became apparent, lacked sufficient water to supply these various needs. The point was driven home in 1892, the onset of a decade-long drought. No new grasses sprang forth out of the already denuded ground, and unacclimated English breeds like Devons and Alderneys quickly died of thirst. A year later the hardier Texan and Mexican breeds joined them and, as one rancher recalled, a person could "actually throw a rock from one carcass to another" across the entire territory. Hydraulic mining operations shut down, crops withered on the vine, and ghost towns sprang up throughout Arizona.

Rather than cut back, the economic interests turned to the federal government and demanded that the nation subdue inhospitable nature. Businessman A.J. Chandler, for whom the East Valley city is named, found a sympathetic listener in Theodore Roosevelt, who authorized the National Reclamation Act of 1902, sending millions of dollars westward for water projects. These involved the creation of huge bureaucratic organizations like the Bureau of Reclamation and the Bureau of Land Management, which have reached pharaonic proportions.

One of the first results of the act, named Roosevelt Dam by grateful Arizonans, impounded the Salt in 1912. Two decades later Coolidge Dam rose on the Gila, drowning the most fertile land on the San Carlos Apache Reservation and bringing famine once more to that unfortunate people. By the 1960s, 11 major dams controlled the runoff from the Mogollon Rim, and five more milked off Arizona's legally ordained share of the Colorado. The bounty made it possible for Arizona's agricultural interests to grow wetland crops like alfalfa, asparagus, citrus, cotton and hay, and for the livestock industry to continue to graze cattle in increasingly destructive numbers.

It made Arizona an urban state as well. To this day, thanks to direct and indirect federal subsidies, New Yorkers pay four times more for their water than do Phoenicians — whose per capita consumption of water is the highest in the nation. Now that the Central Arizona Project has wound its way to Tucson, residents of that city have no incentive to conserve the precious liquid, as they have been doing well for nearly two decades.

## Poured through the breach

But dams, as we saw in January, cannot permanently thwart nature. An early lesson came in 1904, when the Gila flooded with an early melt of snow, destroying agricultural check dams along its course. The discharge spilled into the Colorado, driving before it a huge uprooted oak tree that broke through a control gate just above Yuma. Part of the river poured through the breach and flowed westward, eventually filling the bone-dry Salton Sink — now California's Salton Sea.

When the rains of October 1983 came, the dams again proved their vulnerability. The floodgates at Coolidge Dam failed to open, having rusted shut years before. (No operator seems to have noticed.) Glen Canyon Dam, on the Colorado, shivered loose from its bedding in soft sandstone, and its operators sounded a warning that it might collapse at any minute — taking with it, in turn, Hoover Dam, Davis Dam, Parker Dam and Imperial Dam. By some miracle it stood.

January 1993 brought worse news. By the 11th the Gila was flowing at 30,000 cubic feet per second, 20 times its normal load; Coolidge Dam again failed to do its putative job, and it released a dozen times more water than it did in 1983. That was no surprise: in 1990 the federal General Accounting Office deemed it the most dangerous dam in the country, the one most likely to collapse without warning. For two weeks last month, the residents of Winkelman and other Copper Basin towns got more than a little taste of what such a collapse would involve.

Throughout other parts of the state, buckled roadways and shorn bridges, dismantled apartments and mangled automobiles, silt-covered floors and shattered lives formed the legacy of two weeks of rain. They stand as reminders of nature's incalculable powers.

## Press on for dams

But humans tend toward historical amnesia, for all the reminders in their paths. There are still those who press for the construction of still more dams on Southwestern rivers in the vain hope that, yes, this time, the world will conform to our desires.

The real lesson of January is this: the job of rivers is to flow. Every obstacle that we place in the way of their free movement carries staggering costs. Each dam prevents waterborne nutrients from replenishing the soil along a river's course; each destroys native fish and wildlife populations; each alters native riparian environments.

It is also the job of rivers, on occasion, to flood. Recognizing this simple truth, we can save ourselves heartache by not building our homes and hospitals and shopping malls in places that inevitably will lie underwater every now and again. We can also acknowledge for good measure that patches of the planet are not ours to control.

Charles Krejcsi/The Arizona Republic

The residents of Winkelman Flats seemed to be taken aback by the raging Gila, which made off with their horse trailers and toolsheds and homes.

## 'What do we want?'

At the close of the war with Mexico, Daniel Webster asked his colleagues in Congress, "What do we want with this vast worthless area — this region of savages and wild beasts, of shifting sands and whirlwinds of dust, of cactus and prairie dogs? To what use could we ever hope to put those great deserts and endless mountain ranges?"

In the last century, we have put this supposed howling wasteland to more uses than it can reasonably sustain. But time is a wheel, and we can reverse our course if we so choose. The time has come to build not more dams but to dismantle, one by one, those that choke our rivers. We'll have to make do without a few things in the process: the green lawns we've brought from points east, golf courses that consume a million gallons of water a day, inexpensive winter vegetables and cheap, abundant beef. And we'll have to accept the notion that floods are a part of this place's reality.

It's an entirely immodest proposal, but one whose time has surely come.

# Flood-control measures work 'fantastically' in first major test

By Brad Patten
THE PHOENIX GAZETTE

Give thanks for the New Waddell Dam.

Bow your head to the Arizona Canal Diversion Channel.

Include in your prayers a word about channelization, levees, flood-control dams, automated rain monitors and reinforced bridges.

Without them, you might not be reading the newspaper. Instead, you could be shoveling mud from your living room or be stuck in traffic.

In the past decade, flood-control officials from city, county, state and federal agencies have spent hundreds of millions of dollars for ways to channel billions of gallons of water around the Valley during storms.

"It's worked fantastically, just as it had been designed," Stanley Smith, acting chief engineer and general manager for the county's flood-control district, said Sunday evening.

Last week's heavy rain — which pushed more than 100 billion gallons of water through the Verde River into the Salt River — provided the first major test of a variety of measures implemented in the wake of the floods that ravaged the Valley in 1978, 1979 and 1980.

Smith said most of the improvements in the past 15 years have been designed to manage

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## ■ DAMS

From A1

the floods from winter weather and huge runoffs north of the Valley. He said the flood-control district is still working to relieve pockets of flooding from torrential rains that usually occur in summer.

### Where the flow goes

The measures were designed to control the huge amount of water that travels through the Valley via a dozen rivers and washes when rain and snow drench higher elevations.

To understand the improvements, you need to understand the Valley's water routes, which are not widely understood since they are usually dry.

The easiest way to visualize the system is to remember that water flowing into the Valley is on its way to the Colorado River at Yuma via the Gila River.

The biggest feeder to the Gila is the Salt River, the normally dry riverbed that winds from northeast to southwest through the center of the Valley. It joins the Gila on the west side.

Two north-south rivers meet the Gila and Salt. The Verde River feeds into the Salt northeast of Scottsdale, and the Agua Fria River meets the Gila on the southwestern edge of town.

Water flowing through the Salt in the eastern and central parts of the Valley is controlled by the Salt River Project.

### Dams hold it back

Six SRP dams on the Verde and Salt rivers catch and store water coming from the 13,000-square-mile watershed in the central portion of the state.

Four of the dams are on the Salt northeast of the Valley, beginning with Roosevelt and ending with Stewart Mountain. Two dams — Horseshoe and Bartlett — contain water on the Verde.

As the reservoirs behind the dams fill, SRP must release water into the Salt.

The huge volumes raging through the Salt — up to 124,000 cubic feet per second Friday and 63,000 cfs early today — were the result of heavy rains in the Prescott, Verde Valley and Sedona areas. Runoff from those areas flows to Horseshoe Lake, which has a capacity of 43 billion gallons, and to Bartlett Lake, which can hold 58 billion gallons.

"If the Verde lakes had been empty, we would have already filled those lakes up and would have been releasing more water," said Dan Phillips, supervisor of water resource operations at SRP.

At one point, a record of about 114,000 cfs was being released at Bartlett Dam. The maximum release at Roosevelt was about 20,000 cfs, Phillips said.

### Better control

Roosevelt was 30 percent below capacity before the storm to accommodate construction. But Phillips said the work had little impact on the amount water in the Salt since most of the volume came from Verde dams.

SRP is able to keep more precise control of releases because of improvements in the past decade.

One, a series of rain and stream gauges, sends rainfall amounts and stream speeds to SRP computers every 15 minutes via a satellite system.

That helps SRP hydrologists determine sooner and more precisely how much water they need to release, Phillips said.

Fortunately, the Salt River is able to accommodate more volume, too, thanks to efforts over the past 10 years.

Some sections of the riverbed were widened. Others had levees built on one side or another. Parts were dug deeper by sand and gravel companies. Still others were "channeled" — where engineers improve flow.

"What we have done is controlled the river through designed levees and channels," said Dick Perreault, chief of planning for the flood control district.

### Better bridges

It is also easier to get across the Salt.

After the flood in 1980, only two bridges across the Salt were left intact.

"Traffic was just a nightmare," Perreault said. "It took two or three hours just to cross the river."

Since then, more bridges were built and old ones were reinforced to withstand flows of 180,000 to 200,000 cfs.

"We've got basically new bridges all along the river," said Tony de la Cruza, street maintenance superintendent for Phoenix. "They were all reconstructed and reinforced."

Only one bridge in Phoenix — the 35th Avenue bridge — was closed Friday. There were no major traffic jams.

In the northern and northwestern parts of the Valley, residents can give thanks for canals and relatively new dams that divert water into the Agua Fria River.

The New Waddell Dam in the northwest Valley was finished less than three months ago.

### Lake filling quickly

Good thing, too, because "the old dam is 5 feet under water right now," said Chuck Morfoot, spokesman for the federal Bureau of Reclamation, which runs the dam.

The heavy rain is helping accelerate the expansion of Lake Pleasant behind the dam. The lake will be four times its original size when filling is complete early next year.

Because the lake is being filled, no water was released into the Agua Fria.

"There probably would have been some flooding on the west side of town if we had been releasing water," Morfoot said.

In addition to the New Waddell, flooding in the central and west side of the Valley has been avoided by several flood-control dams and the Arizona Canal Diversion Channel.

The channel is the 17-mile ditch that runs alongside the Arizona Canal from 40th Street and Camelback Road to 75th Avenue and Bell Road, where it runs into the Skunk Creek Wash and eventually the Agua Fria.

A short section between 32nd Street and 40th Street is under construction. But the 16 completed miles are working.

The channel diverts water from several urban washes. It also captures large amounts of water from storm drains in Phoenix.

Smith credits the absence of flooding in central and west Phoenix to the channel and the 13-year-old Cave Buttes Dam. Cave Buttes has a capacity of about 15 billion gallons and was less than one-third full at its peak Friday.

Other dams relieving the strain were the New River Dam, built in 1985, Adobe Dam, built in 1980, and Dreamy Draw Dam, built in 1974.

Even one of the most flood-prone areas of the Valley, the Holly Acres area near the Salt River at 115th Avenue, survived thanks to a 7-year-old levee, Smith said.

# Flood control system worked

**Sure, this week's floods have been bad. But . . . remember what it was like a dozen and more years ago?**

PHOENIX GAZETTE
JAN. 14, 1993

Not long ago, rainstorms like the ones we've had over the past week would have paralyzed the Valley for months. In fact, they did.

Remember the storms of 1978, 1979 and 1980? Devastation touched all portions of the Valley. No matter where they lived, residents and workers were forced to alter their lives to accommodate the storm and the destruction it caused.

Except for the sturdy old Mill Avenue Bridge, motorists couldn't cross the Salt River. Even the freeway bridge over the Salt was closed. River crossings in the busiest parts of town were submerged by rising, raging waters.

Longtime residents remember when torrents of water rushed down Central Avenue and the irrigation canals overflowed, creating lakes out of parking lots, streets and private homes. Homeowners well distant from the banks of the Salt River were digging out from the storms back then.

But not now.

Overlooked in the week's headlines was the real progress made in the Phoenix metropolitan area.

Yes, Holly Acres and New River were flooded out. The Tri-City Landfill eroded its banks and sent tons of garbage down the swollen, muddy Salt River. In out-county Arizona, residents of Winkelman, Duncan and Tucson still brace for more high water and damage. But Phoenix is, by and large, dry.

Traffic flowed unimpeded over Seventh Street, Seventh Avenue, 32nd Steet and Country Club, none of which was passable a dozen years ago.

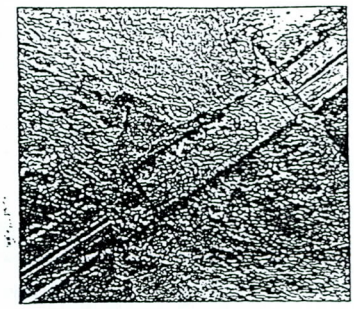
The New Waddell Dam, a Plan VI water storage and flood control cost-sharing project, was completed a few months ago. The recent rains have filled up an expanding new Lake Pleasant. It held back any releases into the Agua Fria River, thus protecting northwest Valley residents.

Three Maricopa County Flood Control District dams, the New River Dam, the Cave Buttes Dam and the Adobe Dam, along with the controversial Arizona Canal Diversion Channel, have kept north central Phoenix residents from lifting a sand bag or filing many flood insurance claims. Billions of gallons of rain and runoff were diverted from the city.

The hated ACDC, the concrete ditch bisecting north Phoenix, carried millions of gallons of water — it was seven feet deep earlier this week at Cave Creek and Cactus — 17 miles across the city, keeping canals and washes from overflowing.

Indian Bend Wash has worked like a charm for Scottsdale.

In 1980, all three rivers overflowed. This time, the Agua Fria was held back by New Waddell Dam. Flows on the Verde were captured by Bartlett and Horseshoe dams. Federal dam safety legislation built a new spillway at the once precarious Stewart Mountain Dam, giving SRP officials additional control over releases.



**This is what it was like in 1978 at 32nd Street and the Salt River.**

The flood-control system, including sturdier bridges, dams, channelization efforts, and rain-monitoring equipment, is the result of half a dozen federal, state and local agencies, including the Salt River Project.

In the words of Stanley Smith, acting chief engineer of the Maricopa County Flood Control District, the system has worked "fantastically."

An estimated 100 billion gallons of water poured through the Salt River Valley last week — that was before Tuesday and Wednesday's rainfall. And most of it ended up where it was supposed to.

In the Sonoran desert, where water brings progress and prosperity, we sometimes overlook the ravages too much water can deliver. Winters like this one serve as reminders.

Last year, the Maricopa County Board of Supervisors lowered the county flood control tax. Residents rejoiced. It made good politics. But wise officials cannot ignore, even in an election year, that funds flowing into the Maricopa County Flood Control District, keep runoff and storm water out of homes and businesses. They keep the Valley moving no matter the weather.

Sober county leaders will continue intelligent land use planning and rational, cost-effective projects sought by the Maricopa County Flood Control District.

There is still much to be accomplished: Channelization of the Salt east of McClintock Road in Tempe; an improved Cave Creek Channel from Bell Road to Beardsley Road in north Phoenix, perhaps Phoenix's most troublesome residential flooding area.

Flood control works. It's the reason we're driving around so easily this week. It's the reason so few of us needed sand bags. Or flood insurance forms.

ARIZONA REPUBLIC JAN. 24, 1993

# Past lessons failed to avert deaths, damage

By Mark Shaffer
and Steve Yozwiak
The Arizona Republic

Arizona has learned many lessons about floods in the past decade.

But there's a long way to go: This month's flooding in the state damaged nearly 600 homes, contributed to at least four deaths and caused more than $60 million in property damage.

However, it took a back seat to the two most recent major floods. Property damage was about four times higher in 1983. And in 1980, three times as many deaths as this year were reported, when the Salt River carried the most water in recorded history.

But this year's disaster has raised questions about what flood-control measures should be taken across the state. Should two large dams once planned by the Salt River Project be built? Why did this year's flooding take on such major proportions despite there not being as much rainfall as in past floods?

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— CONTROVERSY, *from page A1*

One of the dams, Orme, would have been built at the confluence of the Salt and Verde Rivers, northeast of Mesa. The other, Cliff Dam, would have been built between Bartlett and Horseshoe dams on the Verde, about 20 miles north of Orme Dam.

Without advocating that it be built, Sen. John McCain of Arizona, at a news conference with Gov. Fife Symington at the height of the flooding in Phoenix two weeks ago, said Cliff Dam would have significantly reduced water flows through the Valley.

And in a letter to the editor of *The Arizona Republic* published last week, former Gov. Jack Williams suggested that the Valley would have been protected from recent floods had Orme Dam been built.

Such talk infuriates environmentalists who worked for nearly a decade to prove to the federal Bureau of Reclamation that neither dam was needed.

## Dam threatened eagles

Cliff Dam was stopped during the early 1980s, in part because it would have inundated nesting sites of bald eagles. Orme Dam also was halted by environmental concerns, and because it would have flooded portions of the Salt River Pima-Maricopa Indian Community.

Ironically, it is the Tri-City Landfill, owned by the tribe, that may come out of this month's floods sustaining the most damage of any property in the state.

In the 1970s, Orme and Cliff dams were touted as ways to protect the Valley's bridges, many of which had been washed out repeatedly. Eventually, the bridges were rebuilt to withstand exactly the kind of flooding that occurred this month. Except for one bridge under construction in Tempe, all of them held this time.

Williams has acknowledged that environmentalists have sway and that neither Orme or Cliff will ever be built.

"Everybody's against it (dam building) today," he said. "There's a new philosophy abroad that the old-timers never had to deal with.

"Had they been faced with it (philosophy of not building dams), we'd never have had Phoenix or the other Valley towns."

The newest floods came as Arizona's congressional delegation held hearings throughout the state on environmentalists'proposal to protect from dams 1,700 miles along 40 rivers by designating them "wild and scenic."

## Channels have faded

Gail Peters, state director of American Rivers, a group behind the proposal, said that rather than prevent floods, dams on the state's largest rivers can help promote floods.

"If you look at the rivers that are flooding, all are downstream of dams," Peters said.

The old river channels that once cut deep into the desert have faded over time, leaving the rivers shallow and broad, Peters said.

"Having a healthy channel is more important . . . so the river knows where it belongs," she said.

"What needs to be looked at is a wiser use of the flood plains, and not use them for homes."

Don Gohmert, a conservationist, agrees.

"Sure, that's the ideal situation. But people are wanting to move to Arizona, and developers own property, and they want to sell all the property they can," said Gohmert, who is with the U.S. Deparment of Agriculture's Soil Conservation Service.

## Small vs. large dams

Gohmert also said environmentalists likely would stop any new large dam. Maybe what is needed for Arizona, however, isn't large dams, but smaller levees to protect existing developments,he said.

These smaller structures feed areas of vegetation, which help suck runoff into the ground, recharging aquifers.

Since the late 1970s, the Soil Conservation Service has built 71 such structures, mostly in rural Arizona, where this month's flooding was the worst. The cost was about $17.7 million,a fraction of the cost of large dams.

The agency is completing plans to help guard Willcox in southeastern Arizona; Chino Valley, north of Prescott; and Kayenta, on the Navajo Indian Reservation.

Dan Phillips, supervisor of water-resources operations for the SRP, is more concerned with the past. He said he and other experts in the field were surprised by the amount of runoff from the Jan. 6-9 rains.

Phillips said the SRP had released more than 2.1 million acre-feet of water by this weekend, more than the storage capacity of its six reservoirs: Roosevelt, Apache, Saguaro, Canyon, Bartlett and Horseshoe. An acre-foot of water, or 325,851 gallons, would cover an acre of land to depth of 1 foot and would meet the needs of a family of five for a year.

"There was an average of 3 to 3½ inches of rain for those four days on the watershed, compared to 5 inches during the storms of 1978 to '80," Phillips said.

"Yet, the water coming into the system was almost the same. You would rank this as a major storm but certainly not a storm of record. Yet, the Verde River had a record inflow.

"We had a relatively dry fall, and it was wet in December, but not that wet (for ground saturation). There was also just an average amount of snowpack which melted. It's something we're studying with a great deal of interest."

## Record inflow

When the SRP measured its peak flow of 124,000 cubic feet per second Jan. 8, 114,000 cfs were coming down the Verde part of the system, Phillips said. At one point, 137,000 cfs were flowing into Horseshoe Dam — the largest amount ever, far exceeding the previous record of 100,000 cfs in March 1938, he said.

There also was a near record inflow into the lower Salt River reservoirs — Apache, Canyon and Saguaro lakes — from the Four Peaks and Superstition Mountain areas, Phillips said.

"Without flood-control space on the Verde, this will happen again," Phillips said.

"And there's nothing planned that will alter the present situation."

Planning has been a problem for SRP officials for years, especially in how to handle fluctuations in reservoir levels.

In May 1988, all SRP reservoirs were full after heavy runoff from snowmelt. But by early 1991, the state appeared to be entering a major drought cycle in which Roosevelt Lake had been reduced to 40 percent of its capacity. The Valley was sucking up major amounts of groundwater,and the SRP was planning to reduce allocations to users. That all changed with a major storm in March 1991 that filled the reservoirs.

## Built for conservation

Each of the dams in the SRP system was built for water conservation rather than flood control. There's a big difference.

Water from flood-control dams can be released at the bottom, and spillways are cut deep into the dam from the top.

Conservation dams have very high spillways and must rely on small pipelines to remove water if it is below the spillways. Roosevelt Dam, for example, must be at 80 percent capacity before water reaches the spillway.

Despite the reliance on conservation dams and the release of more water, some safeguards downstream have proved quite reliable.

Susan Fitzgerald, public-information officer for the Maricopa County Flood Control District, said efforts to channelize and keep brush and trees out of the Salt River bottom were "extremely effective" in reducing damage from the flood.

"There has been more than $10 million spent since 1991 in clearing the salt cedar out of the bottom and creating a channel, which is 10 feet deep and 80 feet across, downstream of 91st Avenue," Fitzgerald said.

Fitzgerald also said that $1.2 million was spent on a levee from 113th Avenue to El Mirage Road in the Holly Acres area and that it "pretty well kept the river within the river."

Most of the damage occurred in Holly Acres, west of Phoenix; near Winslow, where a levee broke; near Camp Verde because of the high Verde River flows; or in Winkelman where the Gila River rampaged.

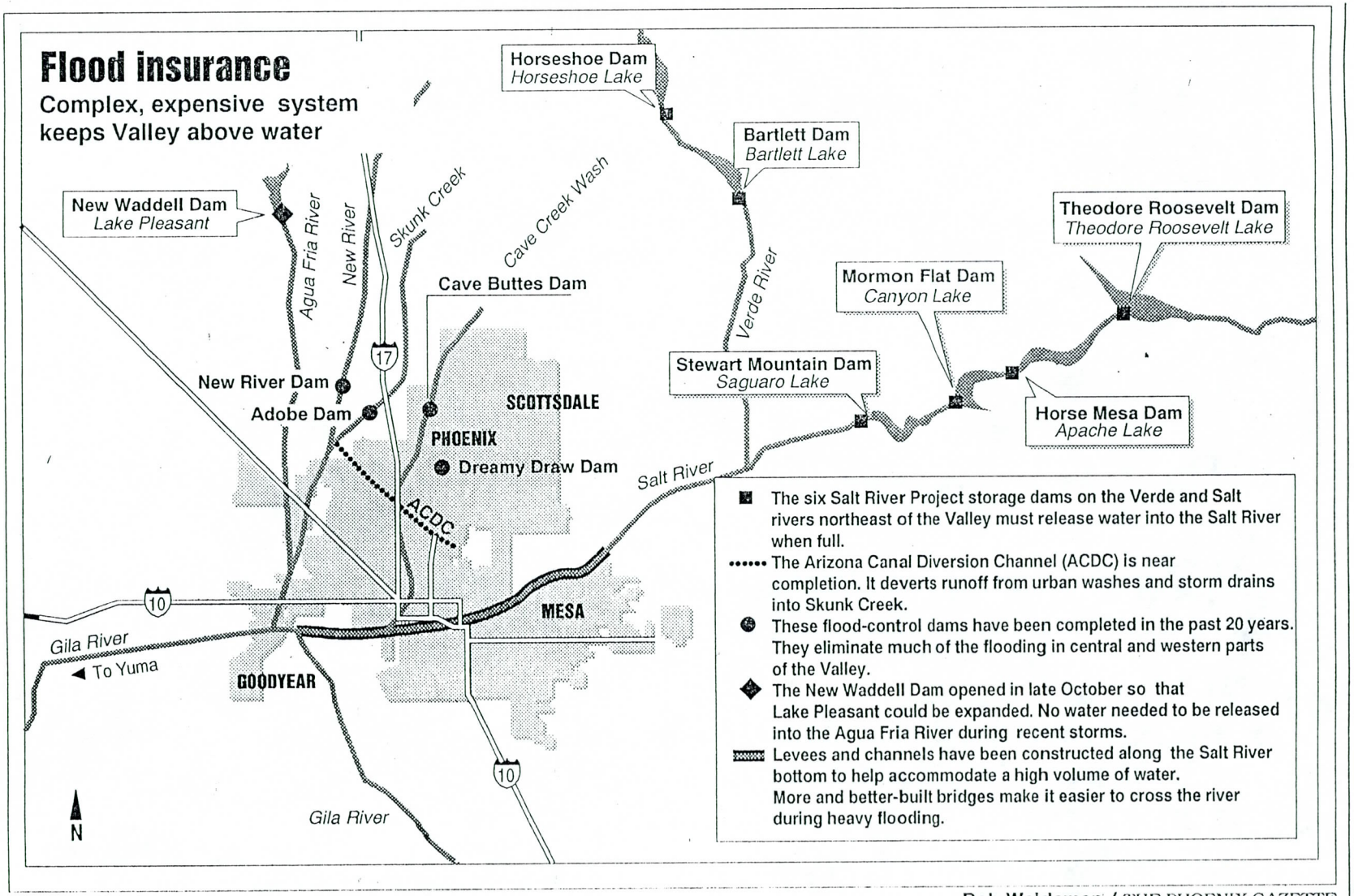
But the losses were much less than in the floods of October 1983 or February 1980.

The 1983 flood, which was caused by up to 10 inches of rain during a two-day period, inundated much of the state. It resulted in 14 deaths and 975 injuries, left 1,100 homeless, and caused more than $220 million in damage. Most of the damage, almost $100 million worth, was to agriculture.

The flood of 1980 poured the largest amount of water in recorded history — more than 175,000 cfs — down the Salt River, virtually cutting the Valley in two. At one point, only two bridges crossing the river, at Central Avenue in Phoenix and Mill Avenue in Tempe, were left open. It also caused more than $110 million in damage to property, roads and dams.

So is all this rainfall and flooding creating a new climate here? Asked whether Arizona's desert characteristics are changing, Phillips laughed and said, "Nobody sees wild banana trees growing yet, but we are starting to look."

PHOENIX GAZETTE JAN. 11, 1993




Rob Weldeman / THE PHOENIX GAZETTE

TEMPE TRIBUNE JAN 10, 1993



**State of emergency** | **The flood of 1993**

# Planned dams could have eased Valley flooding

By Patricia Likens
Tribune writer

Flooding throughout the Valley Friday could have been reduced had dams proposed in the last two decades been built, officials said Saturday.

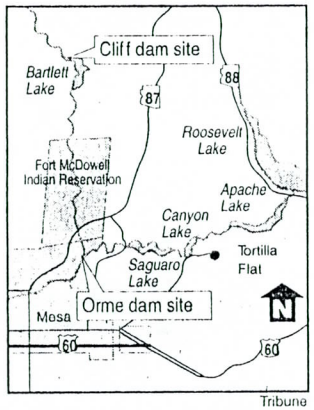
But the lessons learned after floods in the 1980s did help mitigate water problems, they added.

In the past 20 years, several dam sites have been proposed to alleviate the load of water carried into the Valley by the Salt River. But high costs, environmentalists and residents of an Indian community have stopped those plans that many believe would have eased flooding.

The series of dams already in place and operated by Salt River Project are designed for water storage, not flood control.

Orme Dam, proposed in 1976 and again in the early 1980s, was to be the flood control structure for the Salt and Verde rivers. Built at the confluence of the two rivers, it would have regulated flows into the Valley.

However, the reservoir would have



Tribune

inundated a majority of the Fort McDowell Mohave-Apache Indian Community located north of Mesa, as well as bald eagle nesting areas.

"The loss of our land was our biggest concern. We would have had no control of our land," said Tribal President Clinton Pattea, whose tribe fought and won their battle against Orme Dam proponents in 1983.

The federal government planned to compensate the tribe for some of its land loss with land from the Tonto National Forest.

Ten years and a few winter rainstorms later, officials still say a dam is needed to to tame the rampaging rivers.

"Orme Dam would have done it," said Dick Perreault, chief of planning with the Maricopa County Flood Control District. "The big problem is the potential for flooding from watersheds that feed the Salt and Verde rivers and that's what we're seeing in the last couple of days."

Scott Harrelson, a spokesman for SRP, said early releases of water to make way for incoming runoff was not as easy as people think. He explained that although forecasters predicted rain for the Valley last week, SRP officials' hands were tied to release water in anticipation of the coming rains.

"You go by the weather forecast to determine how much you release," said Harrelson. "But you cannot release half of the storage system because this is a water delivery company. You have to have water in the system.

"Had the weather forecaster been wrong, and we released all the water and then don't get enough to fill it up, we cannot deliver the water the Valley needs," he said.

Flooding last week was not as bad as February 1980 when, after nine consecutive days of rain, the raging Salt closed nearly every river crossing in the Valley. "Things were really a mess," Perreault said.

Despite pressure from state political leaders and preliminary federal legislation to fund engineering and site preparation of Orme, the plan was defeated by strong opposition by environmentalists and the tribe.

Soon after the demise of Orme Dam's plans, Arizona lawmakers and state officials — still recovering from the 1980 flood devastation — looked to alternatives.

One alternative was Plan 6, approved on the federal level in 1984. The plan included raising Roosevelt Dam — now under way — the construction of Cliff Dam on the Verde River, and strengthening the remaining five dams on the Salt and Verde rivers.

Although some remnants of Plan 6 are intact, the Cliff Dam site was shot down by environmentalists.

"It wasn't just the bald eagle that was an issue, but at the time, there was actually a bald eagle nest at the site of the dam," said Herb Fibel, a former president and current member of the Maricopa County Audubon Society. "Ninety percent of Arizona's animal habitat lives along riparian areas. Cliff Dam would have cut out a lot of stream site habitats."

Riparian is a natural habitat found along or near a river.

The benefits of development vs. environmental preservation is the crux of arguments between flood control dam proponents and opponents.

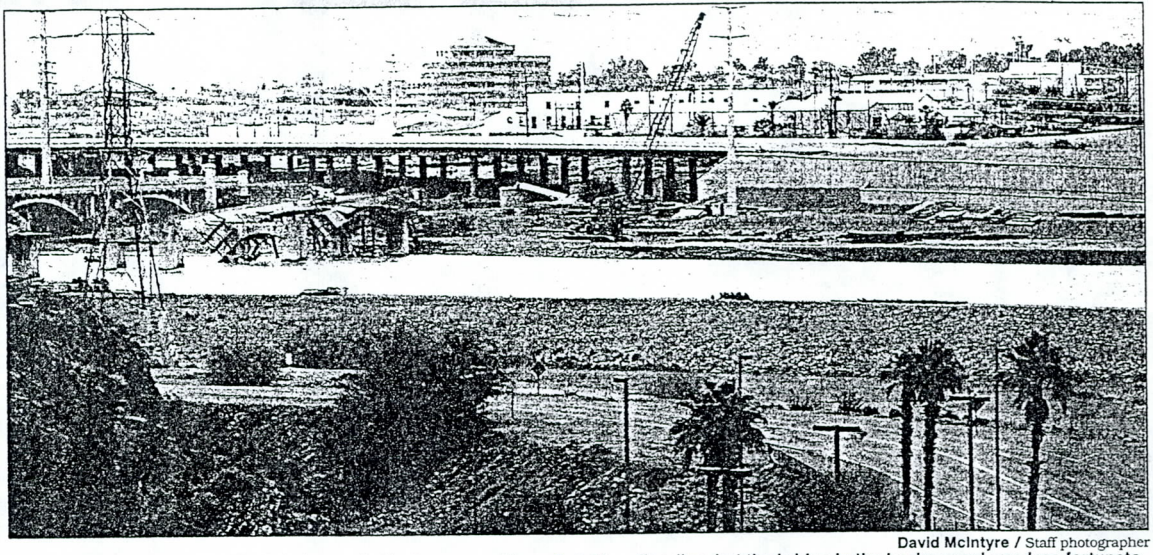
"The environmental groups have a very valid concern for what could have happened at the Cliff Dam site," Fibel said. "What does society want to waive? It's the difference between development and the damage to environment."

Although environmentalists and flood control district officials disagree over the impact the Orme and Cliff dams would have had on the Valley, both sides agree that alternative structures, river channeling and bridges, built since 1980 have lessened the effects of last week's flooding.

River crossings such as Gilbert Road, Alma School Road and McClintock Drive were designed and built to withstand more than 150,000 cubic feet of water per second.

The channeling of the river bed from Mill Avenue in Tempe to Phoenix Sky Harbor International Airport was constructed to avoid a repeat performance of past floods.

Paul Cherrington, manager of water engineering and transmission for SRP, said a flood control dam would solve the Valley's flooding problems. He explained the Orme Dam was envisioned to catch the flood flows of the Salt and Verde rivers. Even the alternative, Plan 6, would have captured all that water. "We would have been bleeding that space out (of Cliff Dam) at 25,000 cfs rather than the 110 cfs you saw (Friday)," he said.



David McIntyre / Staff photographer

Channelization spared the Rio Salado area in the foreground from Salt River flooding, but the bridge in the background was less fortunate.

# Going with the flow

## Flood proves channelization works

By Karina Bland
Staff writer

*Tempe*

It was the best test Jim Jones could have asked for.

When water roared through the usually dry Salt River bed, it gave the newly channelized Rio Salado Project a trial run — and it worked.

"It was the hard way to learn, but I believe it was positive from that standpoint," said Jones, the city's public works director.

The turbulent water, released from Salt River Project dams Jan. 8 because of heavy rains, pounded the Second Mill Avenue Bridge, still under construction.

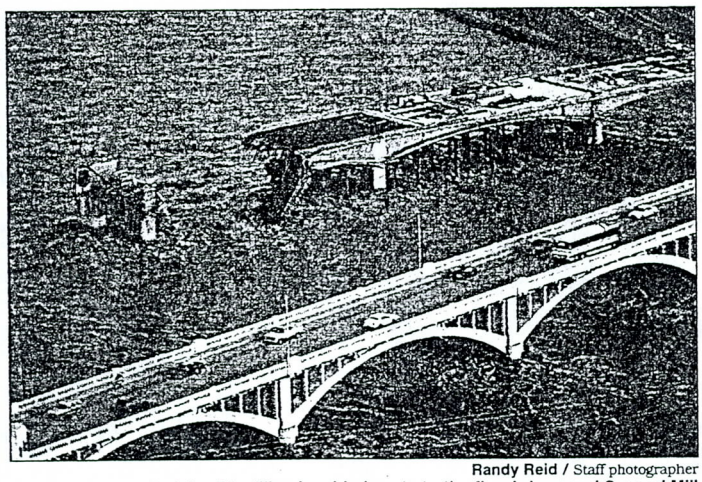
Scaffolding from the unfinished half toppled into the water, adding $1 million to the bridge's price tag and delaying its opening by months.

While devastating for the bridge, the waters proved that channelization for the Rio Salado Project worked. The flow followed the route it was supposed to.

"At least there's a plus to something negative," said Dave Hanna, chairman of the Rio Salado Advisory Commission, a group of citizens.

"We're hardly thrilled that the bridge will be delayed because they lost the false work, but it proved we've confined the river."

See RIVER, Page 5



Randy Reid / Staff photographer

Officials say most of the $1 million in added costs to the flood-damaged Second Mill Avenue Bridge will be covered by the contractor's insurance company.

## Temporary scaffolding no match for river flow

By Karina Bland
Staff writer

TEMPE — While the Second Mill Avenue Bridge didn't actually fall down, it did make for dramatic footage on the nightly news.

Workers still are picking up the pieces from the thrashing the half-done bridge got Jan. 8 when officials at the Salt River Project released water into the normally dry river after heavy rains.

"We'll go back and repair what was damaged," city Public Works Director Jim Jones said. "Thankfully, there was no damage to the permanent structures."

Scaffolding that protected the unfinished half of the bridge, which spans the river just east of the original, started tumbling into the water about 12:30 p.m.

The completed half remained intact as did the cement footings of the unfinished part of the bridge.

Floodwaters were pouring from dams on the Salt and Verde rivers.

Meeting just before the Granite Reef Dam northeast of Phoenix, the rushes poured over the dam's edge, into the lower Salt River and toward the new bridge.

That meant 92,000 cubic feet of water per second were pounding against the two bridges by 1 p.m., SRP spokeswoman Teri Morris said.

By 4 p.m., when half the scaffolding had collapsed, the

See BRIDGE, Page 5

## RIVER

From Page 1

Channelizing the river bed freed hundreds of acres from potential flooding and provided extra space for the Rio Salado Project, a planned lakeside area of restaurants, resorts and recreation areas.

Its $15 million tab was picked up by Tempe, the Maricopa County Flood Control District and the Arizona Department of Transportation.

What it meant during the recent flooding was that no water escaped its banks, and debris from upriver was ushered through rather than being caught on the banks.

"The same type of flood 10 years ago would have done a lot more damage to property and homes," Jones said.

And Tempe will have less cleanup to do than other cities.

"Certainly, they've got a lot more debris," Jones said. "We're worried as much as the others about cleanup for health and safety reasons, but we're going to have less of a problem because we're channelized. Our banks are not nearly as bad as you see in Mesa and Phoenix."

In November 1987, Arizona voters turned down a multibillion-dollar proposal to clean up the Salt River bed and build the Rio Salado Project throughout the Valley.

However, in 1990, Tempe decided to do it alone because its voters had overwhelmingly approved the project.

Watching water tumble through the river bed makes it easier to visualize what the Rio Salado Project will be like, Jones said, adding, "I certainly hope our lake is not going to be as brown and muddy as that."

The channel is dug out with two-tiered banks. No water rose above the lowest jog. Even if it had, only bike trails and hiking paths will be built that far down.

"They will be the sort of things we're willing to get wet," Hanna said. "If you lose some of those once every 15 or 20 years, you can just say, 'Let's put it back.' But no buildings or people."

Even if the river floods once the project is completed, Jones said no businesses or buildings would be affected, even those built on piers.

"They would be up high enough so I wouldn't anticipate any problems with them," he said.

## BRIDGE

From Page 1

water was running at 110,000 cfs.

The scaffolding started collapsing when the water reached about 85,000 cfs, Jones said.

"If you could have held it to 70,000 or 80,000, we would not have had near as much damage," he said.

But SRP spokeswoman Teri Morris said there was little choice because of the heavy storms.

"We decide how much we pass out of the dams, but we had so much coming in that we had to move it," she said.

The flow peaked at 124,000 cfs about 10:15 p.m. The bridge, when finished, is designed to withstand 250,000 cfs.

While some news outlets reported the bridge was collapsing, it was actually plywood forms and steel supports for the concrete that would be poured that toppled into the water.

However, the damage will increase the cost of the bridge to $7.5 million from $6.5 million.

Half is being paid by the state Department of Transportation and half by the city.

Because the city has not taken possession of the bridge, the builder, Kraemer & Sons of Minneapolis, will take the financial hit. Most will be paid by the builder's flood insurance, officials said.

And instead of being done in August, the bridge probably won't open until next fall, Jones said.

While the original Mill Avenue Bridge wasn't damaged, the road beneath it washed away. It was scheduled for removal in six months.

"It just happened early. Nature took care of it," Jones said. "We're looking at probably never rebuilding that, just finishing the bridge as quickly as possible."

The new bridge is being built to relieve traffic congestion and make way for the Rio Salado Project, which will turn the bare bed into a riverside community of parks, restaurants and nightclubs.

The new bridge will carry two lanes of northbound traffic and a bicycle lane. The old bridge will handle southbound traffic.

TEMPE TRIBUNE

JAN 15, 1993

# Strained dams threaten record water releases

By Kathy Nixon and Carolyn Huffman
Tribune writers

Valley emergency crews are bracing for what could be record water releases in the next two days from reservoirs supplying the Valley.

Continued rain Sunday drove Salt River Project officials to increase water flows from dams and warn residents in low-lying areas of flood danger.

What has become the wettest January in nearly a century is producing some of the highest water levels ever in the Salt River Project watershed.

SRP officials warned Valley cities and residents that it may have to release as much as 200,000 cubic feet of water per second by Tuesday night from its Granite Reef Diversion Dam 32 miles east of Phoenix.

Such a release would far eclipse the record at Granite Reef of 178,000 cfs in 1980, which compounded statewide flooding that killed four people.

Should SRP be forced to make record releases Tuesday, bridges spanning the Salt would face the largest currents in their history.

The Mill Avenue Bridge, whose nearly-completed sister span was damaged by flows reaching 124,000 cfs Jan. 8, will withstand the threatened releases, said Tempe officials.

## Storm

From page A1

The Mill bridge is designed to withstand flows as high as 250,000 cfs, said Tempe spokeswoman Nachi Marquez.

An incoming storm due to hit the state early this morning could spill up to three inches onto the already bloated watershed.

The December and January storms have dumped more than 1.3 million acre-feet of water in the Salt River Project system, said Darrell Jordan, SRP's manager of water resources management.

"This exceeds the amount of water by nearly 50 percent that SRP delivers in one year to the entire Valley," he said.

An acre foot of water equals 325,850 gallons or enough to supply a family of four for a year.

Salt River Project announced that water flows at Granite Reef were expected to reach 100,000 cfs by late Sunday.

Other troubling news came from Roosevelt Lake 80 miles east of Phoenix where water threatened to spill over a temporary dam there.

The so-called cofferdam was built so construction crews could expand and improve Roosevelt Dam.

"At this point, we anticipate that any flow over the cofferdam would be minimal, and the cofferdam itself should not be damaged," Jordan said. A 1-foot overflow would increase water releases from Roosevelt Lake by about 2 percent (400 cfs), he explained. A 2-foot overtopping could increase lake releases by about 5 percent (less than 1,000 cfs).

Though the bad weather continues, Arizona is due for some relief, said National Weather Service meteorologist David Carpenter.

"This is hopefully the last in a series. A high pressure ridge coming in should last at least a few days and give us a very welcome break."

Sunday afternoon, the weather service put the entire state under a flood and flash flood warning through 9 a.m. today.

Today's storm, like the past several, arrives from the Pacific Ocean but could bring colder temperatures than its predecessors.

Sunday's storm kept the state unusually warm — at Phoenix Sky Harbor degrees despite a mostly cloudy day. "Just a little bit of sunshine is all it took to zap us up to that," Carpenter said.

The incoming cold could blanket higher country with 5 to 7 inches of snow, bringing the snow level down near 6,000 feet.

In the Valley, sandbags and sand will be available to county residents through the Maricopa County Department of Transportation and the county Flood Control District, said Warren Leek of the Maricopa County Department of Emergency Management.

Mary Ulch, a spokesperson for the Central Arizona Chapter of the American Red Cross, said the organization is on alert to assist flood victims. The agency operated an emergency shelter for county residents in the Holly Acres and Cashion areas near 115th Avenue last week. That area is likely to be hit with additional floods if the rain continues.

"We think that might be the area hit again. If so, we will reopen a shelter for them," Ulch said. "Right now, we are just waiting to see what will happen. We are watching the situation very closely. We will be ready to provide assistance to whoever needs it."

Authorities continued Sunday to search for a woman who was swept away by the Gila about 5:30 p.m. Saturday when the truck she was riding in was washed off a closed stretch of Highway 587 near Sacaton.

The truck's other two occupants, both unidentified men, were fished from the river by a Department of Public Safety helicopter rescue team.

The Gila River Indian Community Emergency Operation Center asked the DPS and the state Department of Transportation to put more barricades on the highway. The road, which intersects with Interstate 10, has been closed since Jan. 10 due to flooding.

## Record releases

- 124,000 cfs — The amount Salt River Project was releasing Jan. 8 when the raging torrents tore through the Tri-City Landfill, knocked down the Mill Avenue Bridge and caused downstream flooding in low-lying areas. SRP officials expect releases to reach this amount again today.

- 178,000 cfs — The record for water releases, reached during the February 1980 floods after nine straight days of rain. The flooding claimed four lives and inundated virtually every bridge along the Salt River, leaving the old Mill Avenue Bridge as the only artery between the East Valley and Phoenix.

- 200,000 cfs — The amount projected by Tuesday if today's storm brings the anticipated 3 inches of rain on the Salt River Project watershed. This amount of water could imperil a number of bridges along the Salt and create widespread downstream flooding.

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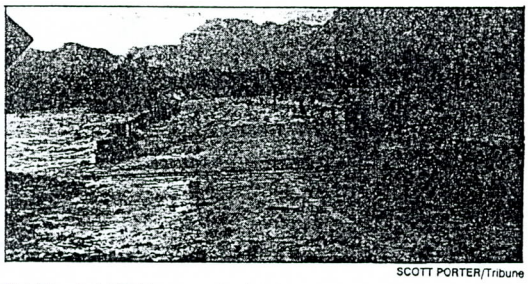
- 1 cubic foot of water — 7.5 gallons.
- 200,000 cubic feet per second:
  - — 1,496,200 gallons every second.
  - — Enough to fill 60 swimming pools every second.
  - — Enough to fill Sun Devil Stadium every 85 seconds.
  - — A year's supply for 18 every second.
  - — A year's supply for the entire Valley every 2.5 days.

## The flood of 1993

# Floods often tested Valley's preparedness

TEMPE TRIBUNE
JAN 9, 1993



SCOTT PORTER/Tribune

The Blue Paint Bridge over the Salt River is covered during the 1980 flood.

By Mike Tulumello
and Joe Costanza
Tribune writers

If you think the floods that hit the Valley on Friday are a rarity, think again.

As recently as 1978, '79 and '80, floods tormented the Valley. At the time, the area was about as prepared for rain as Europe was for the plague.

When the Salt River Project's reservoirs on the Salt and Verde rivers were filled by runoff, SRP sent huge water releases into the normally dry riverbed.

And with as few as two reliable bridges over the river, a half-hour commute turned into a three-hour adventure for the estimated 200,000 Valley residents who crossed twice each day.

In those years, Valley commuters lined up for miles around the Mill Avenue Bridge — the only reliable road spanning the surging Salt River in the East Valley.

Drivers waiting in line on Mill would be cheered by rowdy students standing on the balconies of nearby restaurants.

An Apache Junction couple told of a five-hour trip home from Phoenix Sky Harbor International Airport.

In May 1979 eight cars were stranded — and one woman nearly killed — trying to cross a flooded Country Club Drive in Mesa. State highway officials allowed the road to remain open despite a water release of 1,300 cubic feet per second. A state official blamed drivers "who don't watch where they're going."

The darkest of these times was just plain scary.

Starting on Feb. 13, 1980, measurable rain fell for nine straight days. At the time, SRP's reservoirs were about 90 percent full.

On Feb. 16, SRP released a record 180,000 cfs into the river. And with another big storm on the way, Stewart Mountain Dam northeast of Mesa was thought to be in danger of giving way.

But the next storm wasn't so bad, and the crisis passed. Yet the water ran through the riverbed off and on for months, serving as a reminder of nature's unpredictable powers.

The floods prompted calls by political leaders for building more dams, particularly the controversial Orme Dam that would have inundated most of the Fort McDowell Mohave-Apache Indian Community.

Environmentalists and supporters of the Indians urged building more bridges.

And when alternatives to Orme were proposed by federal engineers, Orme was dropped and the bridges were built. And subsequent floods caused fewer problems.

SRP officials were sensitized to the need to keep flood control — not just water storage — in mind as they operated their dams.

The problem of overgrazing by cattle on the Tonto National Forest watershed also was viewed as contributing to the flooding.

The problem of allowing development in flood plains came into focus as well.

Part of the federal plan finalized in 1984 to increase storage capacity on the watersheds was a new dam on the Verde River, but that was killed in the late '80s when environmentalists charged it would damage fragile bald eagle habitat. Construction began in 1991 on another part of the plan, increasing the height of Roosevelt Dam on the Salt River.

SRP officials warned in late 1991 that work on the dam would severely limit Roosevelt's storage capacity and thus increase the likelihood of both flooding and drought in the Valley until work was completed in 1995.

In recalling the floods of the late '70s and 1980, William LoPiano, a former mayor of Tempe who has lived in the Valley for 42 years, said, "We finally changed our philosophy of saying, 'We're in a desert and there is nothing that rain or water release could do to us.' "

Actually, despite the "Valley of the Sun" nickname, flooding always has been part of the area's challenges.

The first big recorded flood occurred in 1891, when a 300,000 cfs deluge rampaged through the Valley. This flood killed 60 and forced hundreds from their homes, and caused millions of dollars in damage.

"There were no dams then, and everyone started thinking about building them after that flood of '91," said Susan Fitzgerald, a public information officer for the Maricopa County Flood Control District.

Another flood roared through in 1905.

And in 1919, a flood destroyed the fancy new $100,000 bridge built by Tempe near the present Mill Avenue Bridge.

In Mesa during this same flood, two boys who were duck hunting in the riverbed near what is now Country Club Drive avoided a watery death by clinging to the top of a cottonwood tree for a day and a night.

In 1921, floodwater made its way into the state Capitol. The flood prompted the building of the Cave Creek dam, which was finished in 1923.

There also were major floods in 1943 and four in the 1950s, when one caused major problems at Luke Air Force Base in the west Valley.

Other floods took place in 1965 and '72.

In March 1982, rains prompted a release of up to 9,000 cfs. That in turn led to the closure of 16 riverbed crossings.

FLOOD CONTROL ADVISORY BOARD MEMBER →

## A history of floods

Here are some major dates in local flood history:

**1891:** The Salt River runs wild, with 300,000 cubic feet of water per second rampaging through the Valley, killing 60 people. Hundreds forced from homes. Pressure builds for upstream dams; eventually Roosevelt Dam is constructed.

**1921:** Flooding damages state Capitol; Cave Creek Dam construction begins and is finished in 1923.

**1978:** Major floods in March and December. Traffic snarled as Valley split in two with only three working bridges across the Salt River to serve nearly 1.5 million people.

In March, three people reported killed statewide with $44 million in damage. About 120,000 cfs released into Salt River. In December, eight reported killed statewide, including six swept away while driving on Interstate 17 bridge over Agua Fria River at Black Canyon City. Release of 115,000 cfs into Salt River.

**1979:** In January, all but four bridges are closed as 66,000 cfs released into Salt River. Releases of various sizes continue for months. In December, intermittent storms lead to more releases.

**1980:** Four deaths statewide. Nine straight days of rain in February lead to record 180,000 cfs release into Salt River by Salt River Project. Stewart Mountain Dam northeast of Mesa feared to be weakening, but crisis passes. River runs for months, leading to popularity of bus and even train service. Pressure builds for Orme Dam northeast of Mesa, but plan is dropped. Bridges built instead.

**1983:** Southern, eastern Arizona are devastated, 13 killed. Only minor damage in Valley, where new bridges have minimized problems.

**1993:** Water releases expected to hit 150,000 cfs.

# Flood fears ease



Tom Tingle / THE PHOENIX GAZETTE

Mike Englund of Phoenix loads sandbags into his pickup at 129th and Southern avenues Monday, after getting word from the Sheriff's Department that flooding from irrigation ditches was expected.

# Break in storm cuts water releases

By Brad Patten and Victor Dricks
THE PHOENIX GAZETTE

Heavy snow in the northern and central mountains and a lull between the peak rain showers at lower elevations has reduced fears of heavy flooding along the Salt River in the Valley.

"I think the rain has pretty much come to an end," Bob Berkovitz of the National Weather Service said this morning. "We may get a little rain today from a low pressure system moving through the eastern part of the state, but not much, and there is dry air coming in behind it. It should stay dry through the weekend."

The heavy rains have left two people — a police officer and a Chandler woman — missing along the

See ■ FLOODS, Page A12



Russell Gates / THE PHOENIX GAZETTE

Charles Clark, his grandson Mitchell, 4, and Carl Adams wondered Monday if the Gila River would rise above the sandbag dike on its banks. Adams' home is a mile from the river. Flows were expected to rise late today when releases from ungated spillways at Coolidge Dam reached 25,000 cubic feet per second, the Bureau of Reclamation said.



## ■ FLOODS

From A1

rain-swollen Gila River south of the metropolitan area.

The Salt River Project was recording 72,000 cubic feet per second flows into the Salt River at the Granite Reef Diversion Dam 32 miles northeast of downtown Phoenix this morning, less than half the amount predicted.

SRP spokesman John Egan said mountain rainfall was less than feared and that Monday's storm arrived later than forecast, giving hydrologists less water and more time to drain the six SRP reservoirs on the Salt and Verde rivers northeast of Phoenix.

"We are fortunate. We got that extra time," Egan said.

The highest release ever recorded in the Salt was 178,000 cfs, in 1980. Engineers feared that 200,000 cfs the SRP had projected Sunday to reach the Valley today would wash out several of the dozen bridges that cross the Salt in the Valley.

A forecast for heavy snow up north also was welcome news for Valley flood fighters. The National Weather Service issued a heavy snow warning overnight down to the 5,500 foot level for the north and central mountain regions. Warmer temperatures during recent rains had kept the snow level above 8,000 feet.

"Snow up north is good for us ... because we don't get a lot of runoff into the reservoir system," said Stanley Smith, director of the Maricopa County Flood Control District.

But the snow was producing a mess for travelers in the mountains. The state Department of Public Safety urged travelers to avoid the snow country around Flagstaff and along the Mogollon Rim.

"I am getting a lot of calls on accidents and rollovers," DPS Officer Ann Stuckey said.

Stuckey said heavy traffic from the long holiday weekend combined with heavy snow backed up traffic Sunday night on interstates 17 and 40 near Flagstaff. A favorite route for Valley skiers, state Route 260, was restricted to one-lane at portions between Payson and Heber due to rock slides, Stuckey said.

On Monday, Arizonans were reeling from the wettest January on record and several sitings of funnel clouds.

Sgt. Kevin Lewis, a Gila River Indian Reservation police officer, hasn't been heard from since early Sunday, when he went to check on roads crossing the Gila River.

Searchers on Monday found skid marks at a river crossing and downstream debris that could have come from a squad car. Officials were uncertain if Lewis had been swept into the water, Bureau of Indian Affairs spokesman Larry Rummel said. He said this morning that a DPS helicopter might be used in the search today.

Farther west, swift currents prevented divers with the Pinal County Sheriff's Office from retrieving a woman presumed dead in a partially submerged truck in the Gila near state Route 587.

Diane Eckert, 39, of Chandler was crossing a breached bridge Saturday night when the truck carrying her and two companions was swept into the river. Her companions, two unidentified men, were able to escape through windows and were rescued.

Gila River flows were expected to rise late today when releases from the ungated spillways at Coolidge Dam reached 25,000 cfs, the Bureau of Reclamation said.

Flood workers were worried that heavy releases from the dam would combine with high flows in the San Pedro River, which joins the Gila at Winkelman, to cause more flooding in the downstream communities of Kearny, Florence and the Gila River Reservation.

"Right now we are getting prepared, monitoring all these washes, and trying to get a feel for the flows we are going to have downstream," said Teresa Rettenbush, assistant manager for Pinal County.

Pinal and Maricopa County flood-control workers also were watching the Santa Cruz River, which was running fast from heavy rains in southern Arizona. The Santa Cruz and the Gila join the Salt around 100th Avenue, and a levee that protects flood-prone Holly Acres is designed to withstand flows of only 115,000 cfs.



Russell Gates / THE PHOENIX GAZETTE

Lt. Jim Mann is one of the flood-watchers at a Maricopa County Sheriff's Office command post trailer set up at 115th and Southern avenues.

High flows arriving at the same time in all three rivers could produce a flow strong enough to breach the levee, Smith said.

The most severe flooding in the Valley appeared to be in Laveen, where a clogged drainage ditch along Baseline Road near 59th Avenue pushed water into five farmhouses, the Red Cross reported.

Residents were angry that the county had spent money on an expensive flood-control study, instead of cleaning out the ditch.

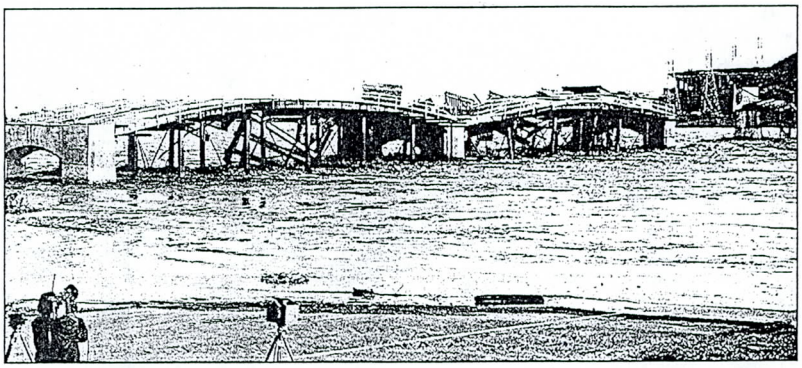
"Instead of solving a very simple problem, the county government resorts to studies that have no validity," said Ron Schlosser, a resident in the area.

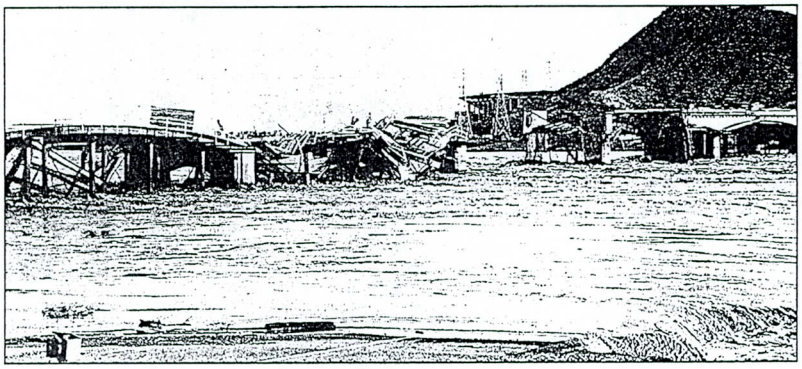
Pea-sized hail pelted marchers celebrating the state's Martin Luther King Jr. holiday downtown Monday and several funnel clouds were sighted in the Phoenix area. One tornado reportedly touched down in the King's Ranch area in Pinal County just east of Apache Junction off Highway 60.

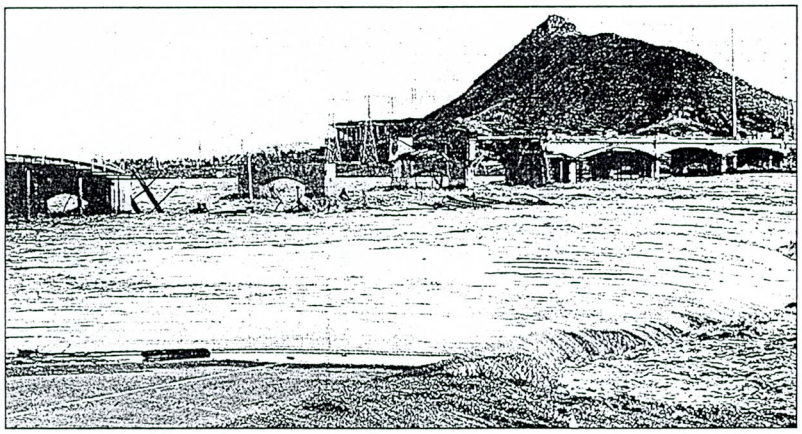
In Patagonia, flooding caused the evacuation of 40 people from a trailer park northeast of the town. A broken sewer line exacerbated problems in the small rural community 30 miles northeast of Nogales.

The San Fransisco River peaked at 15 feet, 7 inches at 2:30 a.m. today, causing flooding in Clifton where 400 people were evacuated to Red Cross facilities.

In the community of Chui Chu, on the Papago Indian Reservation, several hundred people were evacuated as a result of overflows of the Santa Cruz River.







Photos by Rob Schumacher/The Arizona Republic

At 5:10 p.m. Friday, another span of the unfinished Mill Avenue bridge gives way to surging floodwaters and collapses. The Salt River on Friday knocked out several temporary plywood spans supported by dozens of vertical steel beams.

# Unfinished spans prove no match for fury of Salt

## 6 other bridges closed by torrent

**By Pamela Manson and Paul Brinkley-Rogers**
The Arizona Republic

Rushing waters closed six bridges and all unbridged washes across the Salt River on Friday, said Sgt. Jay Ellison of the Maricopa County Sheriff's Department.

Closed were bridges at 35th, 51st, 67th, and 91st avenues, as well as at McKellips and Gilbert roads, he said.

Debris-laden water pounded at the unfinished Mill Avenue bridge throughout the day. The concrete arches in the finished section at the southern end held, but the flood knocked out several temporary plywood spans supported by dozens of vertical steel beams.

The old, two-lane Mill Avenue bridge was not damaged and was open to bumper-to-bumper traffic.

About 100 spectators gathered at each end of the bridge Friday afternoon to watch the Salt River rip the unfinished section apart. Many carried video cameras.

"This is our date," Bridget O'Rourke, a 17-year-old Tempe resident, said as she joined the crowd watching the scene with fascination.

"Hey, it's better than the movies. And it's free, too," said her boyfriend Roger Knauss, 18.

A group of construction workers speculated about whether the flood would rip out the rest of the uncompleted part of the bridge.

"Water is weird," said Rudy Hernandez, 28. "You got concrete. You got steel. You hit that with your fist and you will hurt.

"But that river. It is just water, but it is cutting through that bridge like a knife."

Downriver, raging waters at the 35th Avenue bridge attracted a handful of onlookers.

The bridge was closed at 2 p.m. after water washed over its southern access, but not before it nearly claimed the lives of two people.

Phoenix police Sgt. William Johnston said the people were stranded on an island surrounded by water and had to be rescued by police helicopter.

Officials said it appeared that the bridge, rebuilt after 1980 floods, would survive Friday's water releases.

"I don't think it is going down the river," said Tom LaMarche, a hydrologist for the Maricopa County Flood Control Division.

A nearby business wasn't so lucky. By 4 p.m., the river had swamped the American Truck Salvage Yard at 4141 S. 35th Ave. Several junked vehicles were nearly submerged, and a mobile home was about halfway under water.

Debris from the salvage yard, including several 50-gallon drums, floated downstream. At one point, a large white propane tank resembling a World War II U-boat was carried away.

Central Avenue bridge in Phoenix remained open. Dozens of people stood beside the heaving river or leaned over the bridge's railing to watch the rushing water.

Police officers stopped at squatters camps scattered along the riverbank, warning the residents to leave.

Construction of the new $6.6 million Mill Avenue bridge, which is east of the existing bridge, began a year ago. It had been scheduled to open in July and carry northbound traffic.

Tempe officials had no estimate Friday on the amount of damage but said the contractor's insurance was expected to pay for the damage.

Jim Jones, director of public works, said that the new bridge will withstand 250,000 cubic feet per second of water when completed. The river was running at 80,000 cfs when pieces of it began collapsing. The flow was expected to reach 150,000 cfs by Friday night.

The temporary spans, each about 150 feet long, could withstand only 35,000 cfs because cement had not yet been poured, Tempe officials said.

Contributing to this article were Bob Golfen and Hal Mattern of *The Arizona Republic*.

# Woman clings to tree in creek

**By Mark Shaffer**
The Arizona Republic

As the churning water in Dry Beaver Creek rose to within 6 inches of her feet, Amy Janes said, adrenaline kept her hands clamped to the little tree in the creek bed. Janes, 18, clung to the tree for seven hours late Thursday before being rescued.

Janes, a Northern Arizona University student, had gone on a canoe trip shortly after 5 p.m. Thursday with her father, Earl Janes, a Camp Verde post-office employee, on the creek south of Sedona.

But a wave flipped their canoe, and Amy Janes grabbed a tree as she floated past. Earl Janes swam ashore and drove back to Camp Verde for help.

Then, the serious flooding came downstream. Amy Janes said the water rose a foot within an hour as she clung to the cottonwood tree, which measured only 6 inches in diameter.

"I figured at first that I would get out pretty quick," she said. "But then, I really got worried and started praying really hard when I saw that wasn't going to happen."

Rescue personnel from Camp Verde arrived about an hour later but didn't have the equipment to pull her to safety, she recalled.

White-water specialists from the Prescott Fire Department finally were able to pull her onto a boat at 12:40 a.m. Friday, Janes said. She said she was treated for a mild case of hypothermia.

ARIZONA REPUBLIC
1-9-93

## Street closures

**These streets were closed Friday and are likely to remain closed over the weekend:**

**PHOENIX**

Beardsley Road — Seventh Street to Seventh Avenue
Deer Valley Road east of Seventh Street
Union Hills Drive — Seventh Street to Seventh Avenue
Union Hills Drive west of Central Avenue
Washington Street — Second to Fourth streets
Seventh Avenue — Union Hills Drive to Bell Road
Seventh Avenue at Grovers Avenue
27th Avenue at Happy Valley Road
29th Avenue at Pinnacle Peak Road
35th Avenue at Pinnacle Peak Road
35th Avenue at Deer Valley Road
35th Avenue — Lower Buckeye to Broadway roads
48th Avenue — Tonto Lane to Oraibi Drive
91st Avenue at Salt River

**WEST VALLEY**

Arizona 85 south of Buckeye

**EAST VALLEY**

Gilbert Road at the Salt River

**GLENDALE**

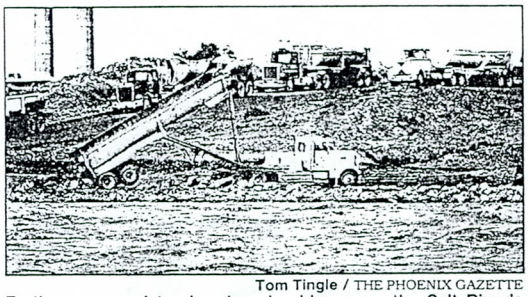
54th Avenue north of Union Hills Drive
57th Avenue north of Union Hills Drive
67th Avenue north of Bell Road
83rd Avenue north of Union Hills Drive

**MARICOPA COUNTY**

Third Avenue north of Circle Mountain Road
19th Avenue — Joy Ranch Road to Desert Hills Drive
35th Avenue — Baseline Road to Southern Avenue
36th Avenue at Gila River
67th Avenue at Salt River
91st Avenue at Salt River
99th Avenue at Union Hills Drive
107th Avenue at Hatfield and Union Hills
115th Avenue at Gila River
211th Avenue south of Grand Avenue
355th Avenue at Indian School Road
Seventh Street at Carefree Highway and north of Carefree Highway
Airport Road at Gila River
Bartlett Dam Road east of Cave Creek Road
Carefree Highway at Cave Creek Wash
Baseline Road — 331st Avenue to Johnson Road
Cave Creek Road north of Bartlett Road turnoff
Cotton Lane at Litchfield Road
Crismon Road north of Broadway Road
Deer Valley Road — 75th to 83rd avenues
Desert Hills Road at 19th Avenue
El Mirage Road and Fornes Road at Gila River
Gilbert Road at Salt River and between Beeline Highway and Thomas Road
Kelley Road at New River and Interstate 17 frontage road
Lake Pleasant Road south of Lake Access Road
Lone Mountain at East 5000 block
Lower Buckeye Road at Agua Fria River
McKellips Road at Salt River
McKellips Road at Alma School Road
New River Road at Circle Mountain
New River Road north of Lake Pleasant Road
New River Road east of Interstate 17
New River Road south of Fig Springs Road
New River Road at Interstate 17 exit for Circle Mountain Road
Old Stage Road at New River Wash
Patton Road at 193rd Avenue
Patton Road at Hassayampa River
Patton Road west of U.S. 60
Pierpoint Road at Gila River
R.H. Johnson Boulevard at Allepo
Reems Road — Northern Avenue to Cactus Road
Rincon Road in Wickenburg at U.S. 89
Southern Avenue west of Miller Road
Arizona 74 — 99th Avenue to Interstate 17
University Drive east of Ellsworth Road

**SCOTTSDALE**

Pima Road north of Lone Mountain Road
At Indian Bend Wash — Indian Bend Road, Starlight Way, Medlock Drive, Osborn Road, Jackrabbit Road, Roosevelt Street and Murray Lane.



Tom Tingle / THE PHOENIX GAZETTE

**Earthmovers and trucks place boulders near the Salt River's edge to buffer the Tri-City Landfill.**

# Landfill's contents may flow down Salt

## Rushing water strips layer of embankment

By David Hoye
THE PHOENIX GAZETTE

Floodwaters breached a portion of the Tri-City Landfill near Mesa late Friday, and officials feared a major portion of the Indian-operated dump could wash down the Salt River this weekend.

Craig Zentgraf, an engineer with the Arizona Department of Environmental Quality, said he watched as rushing water eroded about 100 feet of embankment around the landfill and exposed a layer of construction debris.

He estimated there is 150 to 200 feet of soil and rock standing between the floodwaters and the main portion of the landfill, which contains layers of commercial and residential garbage from Mesa, Scottsdale and Tempe.

"It might survive this release, but if we get more rain tomorrow, the next release will do it," he said.

This is the second consecutive year the landfill operated by the Salt River Pima-Maricopa Indian Community has been blamed for sending garbage and debris down the Salt River.

Both incidents followed major storms that forced the Salt River Project to release water from Granite Reef Dam into the normally dry riverbed.

Flows in the river were expected to reach near-record levels today.

Ed Fox, director of the environmental department, on Friday met with Gov. Fife Symington, and representatives from the Indian community and the cities that use the landfill.

In a letter to those parties Thursday, Fox said that the state has tried in vain to resolve the landfill problem, and that he feels "obligated at this time to explore the state's legal options."

Department spokesman John Godec said that after last year's flooding, the Indian community, the cities and the U.S. Army Corps of Engineers agreed to draft a plan to shore up the landfill and prepare it for closure by October.

The plan was supposed to be completed by August, Godec said, "but the U.S. Environmental Protection Agency and this agency are not aware of it having ever been completed."

Tribal leaders were planning a meeting this morning to discuss the Salt River water releases.

Janet Johnson, a spokeswoman for tribal President Ivan Makil, said the governor, during last January's rains, offered to help the tribe with $300,000, but the tribe never received the money.

Makil said the tribe shored up the landfill with a $400,000 renovation.

*Includes information from reporter Betty Reid.*

PHOENIX GAZETTE
JAN 9, 1993

# Earlier floods created grief for motorists, homeowners

By Victor Dricks
THE PHOENIX GAZETTE

Since 1978, three massive floods have soaked the Valley, causing $177 million in damage to homes and businesses, washing out bridges, and leaving thousands of residents temporarily homeless.

Although the Valley gets an average of only 7 inches of rain annually, events of the past week demonstrate it is not immune to the caprices of nature.

The Valley is a drainage for 50,000 square miles. When it rains heavily, we get runoff from most of the state and parts of New Mexico.

The "granddaddy of all floods" — the most severe in Maricopa County on record — occurred in 1891, sending 300,000 cubic feet per second of water roaring down the Salt River. It prompted local farmers to pool their resources and form a flood control district. Within 10 years, they started damming the Salt River.

Those efforts did little to protect the Valley from the fury unleashed by Mother Nature three times over the past 15 years. The speed and volume of storm runoff take many people by surprise here, said Susan Fitzgerald, a spokeswoman for the Maricopa County Flood Control District.

■ In February and March of 1978, floodwaters along the Salt River washed out an Interstate 17 bridge of the Agua Fria River and killed six people. The only city bridge that remained open during the flooding was the Central Avenue Bridge, which sustained heavy damage.

■ In December 1978, another storm caused extensive damage along the Salt River, including losses to sand and gravel operations along the banks of the river.

The two storms caused an estimated $113 million damage, according to the Arizona Department of Transportation.

■ In 1980, a storm so severe it might be expected to occur only once every 100 years caused $63.7 million damage in the Valley, including income loss and emergency services. The storm forced hundreds of people from their homes and left three dead.

Salt River Project officials were forced to release water into the Salt River to protect Stewart Mountain Dam from collapsing after the Army Corps of Engineers found sections of the concrete were "unbonding." These releases caused massive traffic snarls and prompted a review of flood-control programs.

Tribune Newspapers, Saturday, March 27, 1993

# City, state to weigh river safety

## Drownings underscore dangers

By Jeffrey Crane
Tribune writer

Three deaths in the last year in the swollen Salt River in Tempe have left little doubt of the waterway's power to kill.

The unwanted reminder came Thursday, when a dentist and a doctor from Tempe died in the Salt during a canoe expedition in the same turbulent waters where another Tempean drowned a year ago.

Authorities pulled the bodies of Dr. James Wilson and Dr. Finis Taylor from the Salt late Thursday afternoon, downstream from a flood control hydraulic. The hydraulic, which creates a 15-feet deep, powerful undertow, had separated the two men from their canoe at about noon.

During the search and immediately following the discovery of the bodies, Tempe, the Arizona Department of Transportation and the Maricopa County Flood Control District discussed the dangers along the river.

All have the same message.

The river is dangerous — stay out of the river.

"No one is trying to point fingers about who's to blame, because we all know this is a collective problem," said Tempe City Attorney Dave Merkel. "We don't want these adverse consequences to happen again, and it certainly is not a desirable situation.

"We have to figure out ways to try to (eliminate) the potential for risk."

The three governmental groups will meet Monday to determine what measures can be taken to avoid another tragedy.

Merkel and Jim Phipps, public information officer for the flood control district, said engineers will meet to discuss the possibility of modifying the structure and looking at safer alternatives.

"It's impossible to put up fences, and maybe we'll put warning signs all the way up the river," Phipps said. "Right now, there are 12 signs along the river, but maybe there wasn't one at the right spot."

The orange, 5-by-8-foot signs are installed as far east as Alma School Road, and fences have been placed at various entry locations on the waterway.

Those measures were taken last year after 26-year-old Brian Trenary drowned in the same location.

Wilson, a dentist at Williams Air Force Base, and Taylor, a physician in Tempe, began their trip with two other canoeists about 10:30 a.m. near Country Club Drive in Mesa.

The journey apparently went smoothly until they hit Hayden Road. About 30 yards from the Hayden Road Bridge is the hydraulic.

"The thing about this is, is that the hydraulic structure is doing exactly what it's sup-

Please see Drownings / B6

## Drownings

From page B1

posed to do," Merkel said. "But at a certain velocity of the water, the turbulence, the eddying, that begins. That happened yesterday (Thursday) and before."

Officials said that at a flow rate of between 5,000 to 8,000 cubic feet per second, the water's velocity is such that the concrete structure develops the violent, swirling undertow that trapped its three victims.

Another variable, Phipps said, is that the width of the river has been narrowed for a construction project by ADOT on the north end of the hydraulic structure. That forced about twice as much water over the wall as will pass through when the Rio Salado channelization process is complete.

"The water will be spread out over a much larger area and not detoured over the hydraulic," Phipps said. "Once the construction is done by ADOT, the water will be more shallow."

Officials with ADOT said the construction project may be completed by the end of the year, depending on when the river goes dry. The rest of the channeling can then be finished in about six months.

# Victims weren't reckless

Recently, Finis Taylor and Jim Wilson lost their lives in a canoeing accident on the Salt River in Tempe. The news coverage stressed the danger of the river, the fences, the warning signs and the previous accidents there.

I'm concerned that the negative news coverage may cause their friends, patients, parents who trusted Boy Scouts to their care and even family members not just to doubt their decision to be on the river that day, but also to reassess their respect and admiration for the men. These men were not reckless.

My friend Finis Taylor was a cautious, careful man who was conservative in his medical treatments, put safety first with the Boy Scouts and always chose the safest cars to protect his family. Finis would never have put himself in danger.

So why was he on the river that day?

Finis was an experienced canoeist who knew that the Salt River was dangerous when it was surging, and he and his friends had waited for the flow to reduce to a safe level for canoeing.

The river was not overly rough and they had no problems with the water currents until they came to the hydraulic, which they did not know existed and could not see until they were upon it.

Unlike a natural waterfall, the hydraulic was not preceded by whitecaps. Despite what officials have said, at Country Club Drive where they entered the water there were no warning signs or fences, and there were no signs on the river warning them of the upcoming hydraulic. If there had been, they would not have been on the river, or would have gotten out.

Finis and Jim lost their lives because of a man-made hydraulic and because of their lack of knowledge of its existence.

I want the community, their patients, friends, and especially their children, not to let the cause of their deaths diminish the respect they deserve for the quality of lives they led.

They were good doctors, husbands, fathers, Boy Scout leaders, and friends, and should be remembered for the good that they did for all those whose lives they touched.

Mary Benin
Tempe

May 12, 1993 Mesa Tribune

The Arizona Republic Saturday, January 9, 1993

# Evacuation is the 5th in 15 years for one district

By Judy Nichols
The Arizona Republic

Pete Oliver, 76, stood in the street in front of his now-empty house, clutching a Roi-Tan cigar box filled with cattle receipts, vowing never to return.

The drapes in his front window are tied up to the ceiling with rope. Sandbags are stacked against the front door, a hedge against the rising waters of the Gila and Salt rivers, which converge near 115th Avenue.

That's just east of Oliver's neighborhood, Holly Acres.

"This is the last time," he said, setting his jaw. "Damn right. I should have left after the first time. I'm sorry I ever did come back."

Oliver and his neighbors are well-acquainted with floods. They've had to flee their homes five times now, including "the big one" in 1978.

That time, there was no notice when the rivers overflowed, and most people, including Oliver, lost everything. Since then, they've packed up and left twice in 1980 and again in 1983.

U-Hauls, pickup trucks, horse trailers, tractors, anything that could move or haul, lined the streets of Holly Acres, as people loaded their sofas, washing machines and dogs.

"I was born over here at 91st Avenue and Lower Buckeye," Oliver said, pacing across his driveway.

— See NEIGHBORHOOD, page A 10

# Neighborhood has its 5th evacuation in 15 years

— NEIGHBORHOOD, from page A 1

"I should have known it flooded here. But when I bought the house in 1975, I thought they fixed the river so it wouldn't flood."

Oliver's sons helped him load everything into a moving van so quickly that the magnets were still on the front of the refrigerator. Crocheted afghans cushioned breakables sitting next to bags of dog food.

"I had two cows," he said. "They just took them away."

Across the street, Judy Hill stood in the living room of her log home, her furniture suspended by rope from the log beams.

"We have it down now so we can move out in about three hours," she said.

Once the waters recede, she and her husband, Jerry, hose off the fireplace, refinish the logs and move back in.

"As long as the ropes hold, we're OK," she said.

**WHERE TO FIND HELP, SHELTER**

- For help and referrals, the Flood Relief Hotline (Spanish operators available):
  In Phoenix, 263-8856.
  Outside Maricopa County, 1-800-352-3792.
- Shelters have been established by the American Red Cross at these sites:
  Westwood High School, 945 W. Eighth St., Mesa.
  Littleton Elementary School, 1252 S. 105th Ave., Cashion.
  The Seventh-day Adventist Church, Wickenburg.

Next door, the Farmers are loading their couch onto a flatbed truck.

"People ask why we stay," Renee Farmer said. "We have an acre that's all paid for. We have a three-bedroom house, country living and our house payments are $67. We have flood insurance, so when this happens, we just get moving. We just do it."

A few miles away, Venita and Cleo West were moving everything: televisions, important papers, family pictures. They lost their trailer home and everything in it in 1978.

"Now I wonder every time it rains," said Venita, who can see the Salt River from their property on 115th Avenue south of Southern Avenue.

Her daughter, Kathy Trimble, will never forget the unexpected waters in 1978.

"I was 6½ months pregnant," she said. "We were wading through waist-deep water, and I could see all the gophers and snakes floating by. When we went back in the trailer, there was sand and mud as high as the roof in places, and snakes were crawling all over."

The replacement, a double-wide trailer, was pivoted 90 degrees by the flood in 1980.

"We just decided to leave it there," she said.

Nearby, blue-uniformed convicts filled sandbags and stacked them across the blacktop of 115th Avenue, and a bulldozer piled up earth to shore up the line of defense from the rising waters to the height of a dike that is new since the previous flood.

Farther west, near 211th Avenue at the edge of the Gila River, workers at the Heartland Dairy loaded about 800 cows onto trucks.

"The water's getting pretty high," dairyman Mike Rainwater said. "We figured we better move them rather than taking a chance."

Nearby, on Beloat Road, Gene Shelton was angry.

"They could have been releasing 60,000 cubic feet all this week, then there'd be no problem," Shelton said.

"But they try to keep as much water as they can for the farmers."

In Mesa, police evacuated the six mobile homes closest to the rising Salt River at the Hawaiian Family Mobile Home Park.

"In a way, it's very exhilarating, but in a way, it's very scary," Collenne Millien said. She spent all day packing, believing that her 12- by 50-foot trailer would be washed away.

"If you see it floating, have someone call us," said Danny Millien, her husband. "You've got to hang in there, there's no other choice."

Collenne said they have no insurance. They have lived in the trailer on Country Club Drive, north of McKellips Road, for 10 years.

Although the river has risen before, "it's only been about half of this," she said. "This is real. There's no getting around this."

Although authorities evacuated only six mobile homes, Red Cross volunteers Friday afternoon began setting up a shelter for evacuees at a Westwood High School gymnasium about five miles south of the mobile-home park.

Millien's neighbors nervously asked Mesa police whether they would be the next in line for evacuation.

Joseph Duprey criticized state flood-control efforts.

"I can't believe that they don't have more flood control," he said. "It's a joke."

Contributing to this article were Art Thomason, Jim Walsh and Guy Webster of *The Arizona Republic*.

## How water flow is measured

Stick your finger into the Salt River, and in one second, 150,000 cubic feet of water will pass by. But cubic feet per second is an indecipherable measurement for most people.

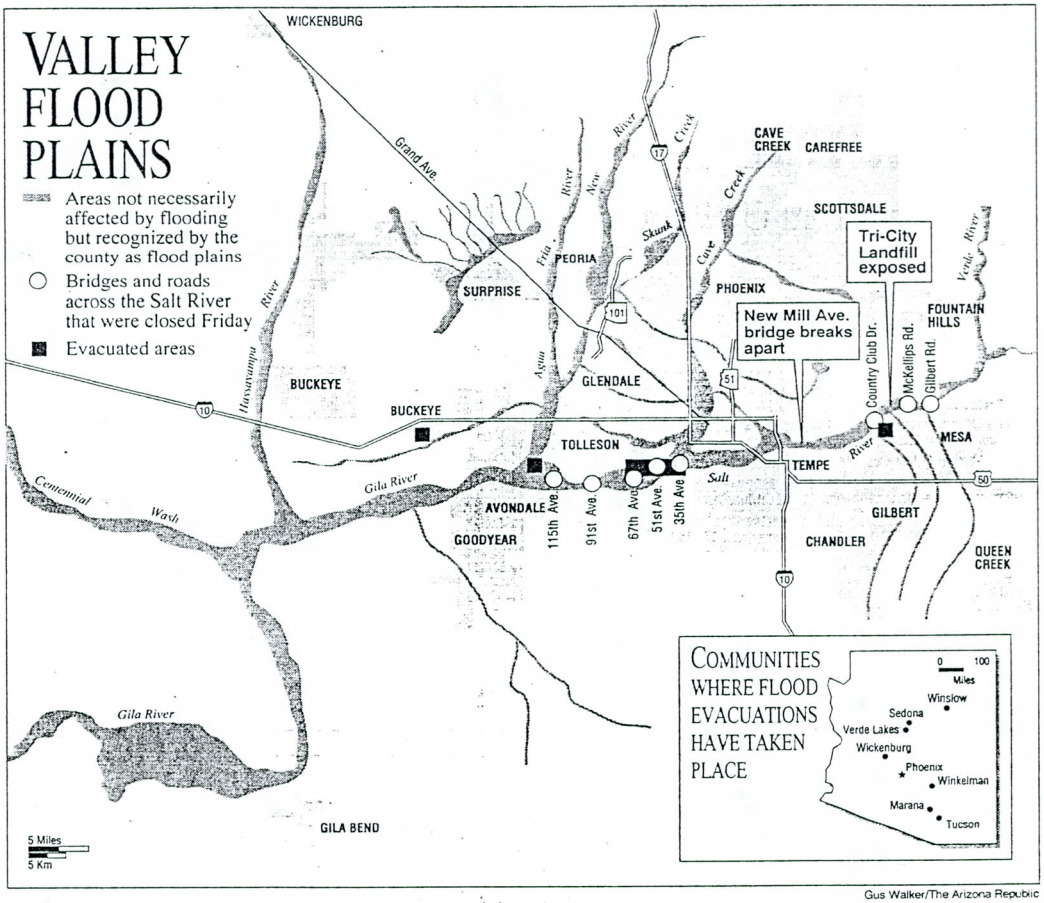
Because few of us have a cubic foot of milk in the refrigerator, it may be helpful to think in terms of gallons. A cubic foot of water contains 7.5 gallons. So, the flow of the Salt translates to more than 1.12 million gallons a second.

That flow could:

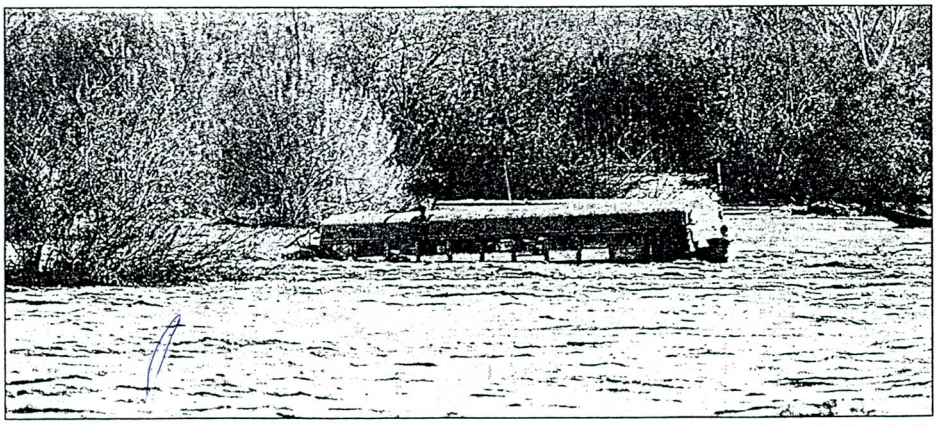
- Fill 50 swimming pools a second.
- Provide the daily water needs of Phoenix in just four minutes.
- Fill Horseshoe and Bartlett lakes in a day.
- Provide the annual water needs of all the Valley cities in less than 3½ days.

* Protects Holly Acres Levee.

# FLOODS OF '93




Gus Walker/The Arizona Republic



Water rises to the top of a bus in the Salt River at 91st Avenue, where about 18 people were living in buses, trailers and campsites. Flooding in the area Friday also threatened a Phoenix waste-water treatment plant.

Christine Keith/The Arizona Republic

THE
# VILLAGE ALLIANCE VOICE
of Sunnyslope

VOL. 6 NO. 2 Circulation 2000 FEBRUARY 1994

## MARICOPA COUNTY BEGINS STUDY OF 10TH STREET WASH

*by Dave Longey*

In November, representatives of Maricopa County Flood Control District met with the North Mountain Village Planning Committee to announce that they are beginning a study of flood control measures for the 10th Street Wash. SVA members Dave Longey and Winn Green also attended that meeting to present the Community's and Neighborhood's concepts, goals and objectives for the Wash as determined by Public Workshops in 1992 and as outlined in the Sunnyslope Planning and Design Study Report of 1993.

In December, representatives of the Flood Control District were asked to meet with the SVA Executive Committee. Also attending that meeting were representatives from County Supervisor Betsy Bayless' office and City Councilman Craig Tribken's office, as well as SVA members Dave Longey (Planner) and Hemant Patel (Engineer). At that meeting the Flood Control District was asked, and agreed, to closely conduct the entire project in coordination with a Citizens Advisory Committee made up of members representing the New Northtown Neighborhood, the Sunnyslope Village Alliance, North Mountain Village Planning Committee, and representatives of Supervisor Bayless' office and Councilman Tribken's office.

This month, the Flood Control District will contract an Engineering Consultant to begin preparation of an engineering feasibility study for the 10th Street Wash, and representatives of the Flood Control District have agreed to attend the February SVA General Membership meeting to discuss the project with the Sunnyslope Community.

# Flood plain queried

## Study to look at ways to get rid of status

By Connie Cone Sexton
Staff writer

THE PHOENIX Gazette

Friday, November 26, 1993

A study will get under way soon on how to help 565 Phoenix homes get rid of their "designated flood plain" status.

The homes fall along the 10th Street Wash — a 50- to 100-foot-wide area that straddles 10th Street from about Griswold Road to Cheryl Drive.

The Maricopa County Flood Control District has hired a consultant to find ways to get rid of the flood plain designation.

A key to the success of the undertaking is public involvement, said Jim Phipps, a spokesman for the flood control district.

Although public hearings on the wash study won't be held until next year, some residents know that a consultant has been selected.

Because rumors are likely to begin about what work will be done, Phipps decided to provide an update on the project to local groups. He spoke to the North Mountain Village Committee on Nov. 17.

Phipps said last Friday that the county is negotiating the consultant contract with Daniel, Mann, Johnson and Mendenhall, an engineering and architectural design firm in Phoenix.

"We can't really wait for the informational piece (that would be generated from the study). We wanted to avoid the rumors by doing a little bit of public relations on it now," Phipps said.

Freeing the 565 homes from the flood plain designation is on the Phoenix wish list as a priority project for the flood control district, he said.

"It's a well-developed area as far as residential homes. The flood insurance map has delineated the area as a 100-year flood plain. Many people who live there are paying flood insurance as a result."

Phipps said the aim of the county study is to come up with about six alternatives

See STUDY, Page 2

## STUDY

From Page 1

for modifying the land.

"The alternatives can range from doing nothing to 'we think we can come in here with a viable alternative.' There are a couple of basins we could put in along the wash that could take the peak flow," he said. "You could remove a lot of people from the flood plain by doing that."

But if you do put in basins, "the question is, Where should they go?" Phipps said. This is information that the public would want to share with the consultant, he said.

While the flood control district cannot spend any money on recreational features, it could design the wash for long-range ideas, in case Phoenix wants to put in a park in the basins, he said.

But area residents may prefer to keep it a natural wash, Phipps added.

Betty Bellanger is one of those residents.

For the past 36 years, she has lived in a home at the corner of 10th Street.

"I realize it needs some work, but the city has really been wonderful about keeping it looking nice," she said.

"When we first moved out here, people were getting flooded out. But the city came out and they did a fabulous job of making it (the wash) deeper and wider. After that, we didn't really have a problem."

Lately, the neighborhood has taken to planting wildflowers and other vegetation.

As far as a new design for the wash, she likes the natural look. "I would love to see it a little nicer, but I just don't feel we should waste all that money on such things as cementing it in or building a park there, nothing that is too drastic."

PHOENIX GAZETTE

THURSDAY, JULY 16, 1964

# Sunnyslope Given Apology By City

Fred Glendening, city public works director, today apologized to a group of Sunnyslope residents for his department's "goof" in failing to carry out a promise regarding their complaints on drainage.

Area property was hurt considerably by a major storm last August and to a minor extent by a rain Tuesday night and early yesterday.

GLENDENING SAID steps have been taken to improve the drainage in some of the areas, but that "most of the drainage problems in Sunnyslope cannot be solved until the Flood Control District provides an outlet for water via an additional canal along the Arizona Canal.

In a letter to George F. Ginter, executive vice president, Sunnyslope Chamber of Commerce, Glendening said:

"Many of the drainage problems have been caused by people building in washes. We are doing all we can to discourage this in the future. However, this does not help to cure the existing problems, many of which were created by building before the area was annexed by the city.

"WE ALSO HAVE recently completed improving the drainage across 12th Street north of Northern Avenue, and we have added more outlet capacity from the pocket north of the Arizona Canal and east of 19th Avenue."

Last September, the then city engineer promised about 12 residents they would be contacted individually by the city regarding the situation. The engineer left city employment and turned the matter over to an assistant. The assistant resigned without passing the correspondence over to the new city engineer and the residents were not contacted, Glendening said.

The Phoenix Gazette
VALLEY NEWS
WOMEN'S PAGES
Section Two. Pages 15 to 32

# Sunnyslope Work Pushed

SECOND
FRONT PAGE

Saturday, January 9, 1965

## Drainage System Sought

Fred Glendening, city public works director, today recommended an immediate start on an $800,000 flood-control project in Sunnyslope.

It involves clearing a channel and constructing seven culverts and small bridges along the largest drainage way there—the 10th Street Wash. The three-mile-long wash originates in the vicinity of Cholla Street and Cave Creek Road and terminates at the Arizona Canal near Tenth Street.

GLENDENING will ask the Phoenix City Council Monday night to authorize an immediate engineering contract. That could be finished by May, he said, and construction could begin soon afterward.

In a memo to City Manager Robert Coop, Glendening wrote, "The project conforms to that which has been discussed by me with the council, and by Mayor Milton Graham and staff members at a public meeting in Sunnyslope."

After flooding in Sunnyslope from the September storms, Mayor Graham told residents there the city "will do everything possible to prevent a repetition."

AS SUNNYSLOPE has been built up, its flooding problem has correspondingly increased, City Engineer Clarence Lintz said today. "The construction of more homes, stores, and paved areas increases the percentage of rainfall that immediately runs off to lower areas. We can only anticipate the problem becoming more acute unless immediate steps are taken to preserve, protect, and improve the major natural drainage facilities of the area."

Lintz said the seven culverts and bridges would be where the wash crosses streets. A second phase of the improvement program, he said, would be to "determine the right of way to maintain this channel throughout its length and to initiate a program to establish drainage rights to this area. The final phase would be to clear the channel area itself to assure unrestricted flow of the flood waters that it must carry."

Lintz recalled that the wash could not carry flood waters freely last fall because of refuse dumped in it and because some of its low areas had been filled up. At some places, it is 40 feet wide and it contains depths of six to seven feet, he said.

OCT. 23, 1964

# Mayor Urges Flood Control Bond Issue

MAYOR Graham next Wednesday will urge Sunnyslope area residents to support a proposed Maricopa County flood control bond election.

That is the only way, Graham and other city officials contend, that most of the Sunnyslope flooding problems will be solved.

The county supervisors have scheduled tentatively a flood control bond election for next year. The proposal will ask the voters for permission to sell about $20 million in bonds.

Graham expressed confidence that the supervisors would call a flood control bond election, postponed three times already.

THE SUNNYSLOPE area Chamber of Commerce yesterday called a "no holds barred" public meeting for 7:30 p.m. Wednesday in the Sunnyslope High School gymnasium, 35 W. Dunlap, to discuss the area's flood problems.

Graham and a host of other city officials will be there to answer questions about the flood problems and about other subjects the residents want to bring up.

The only ground rule will be that questions must be submitted in writing.

At a meeting yesterday Graham told the chamber's board of directors that the Sunnyslope flood problems "can't be solved by a wave of a magic wand."

THE CITY can do some minor things to relieve somewhat the damage from rain-caused floods, but the county flood control program will provide the ultimate answer.

He also repeated his statement that drew wide publicity earlier this week: "Some people in Sunnyslope would be better citizens if they didn't throw their trash and debris in the washes."

Trash deposited in the washes was swept down the rain channels and blocked a flood control gate at the canal at Seventh Street, increasing the flood damage from last weekend's rains in the area, he said.

# 'We Want Action!'

The people of Sunnyslope want a definite plan of action for flood control for their area, George Gitner, director of the Sunnyslope Chamber of Commerce, said today.

"They don't want a lot of talk and no action — they've gone through that before," Gitner said, "but they do realize that any action taken by the county or city would have to be made for the benefit of the entire metropolitan area."

10-29-64
Phnx. Sun

SERVING
Deer Valley
Moon Valley
North Mountain Village
Northwest Phoenix
Sunnyslope

Northwest Phoenix
COMMUNITY

Wednesday, March 2, 1994

# Wash improvement in works

## County, citizens plan design together

By Ryan Konig
Staff writer

The 10th Street Wash is finally bringing people together after years of keeping them apart.

The homeowners near the north-central wash have been invited to work with Maricopa County Flood Control District officials to propose improvements to lessen the likelihood of floods.

About 200 area residents met with county officials Thursday for the first time. They plan to draft a list of ideas by month's end.

The wash — a natural ditch that carries rainwater from the Phoenix Mountains down to the Arizona Canal Diversion Channel — had been the source of friction between homeowners and three levels of government.

The residents at times were upset with the city for not maintaining the wash.

During the past few years, however, many residents say the city has done well in cleaning debris and overgrown vegetation.

The residents were upset with the county because it initially did not involve residents in plans to improve the wash.

Some of those plans called for having the county buy up property in the area to use as detention basins.

And many are upset with the federal government for requiring homeowners to pay mandated flood plain insurance. That insurance can cost $200 to $500 a year.

About 565 homes are in a designated flood plain that straddles 10th Street from about Griswold Road to Cheryl Drive.

The partnership with the county won't solve all the problems, but it could lead to excluding many homeowners from paying flood insurance, Sunnyslope resident Dave Longey said.

He helped organize the push to give 10th Street Wash residents more say in what the county does to the wash. He also is a member of the Sunnyslope Village Alliance.

The county initially planned to buy up some of the private property near the wash to create detention basins that would trap rainwater and reduce the chance of flooding.

The county changed gears after hearing objections from Sunnyslope residents and the members of the North Mountain Village Planning Committee, and opted to have residents involved in the project.

Michael Lopez, a project manager for the flood-control district, said potential ideas range from making the wash deeper

See WASH, Page 3

## WASH

From Page

or wider or some other type of improvement so it can carry more rainwater without overflowing.

Other ideas include adding detention basins, creating dams and adding park benches and recreational trails along the banks.

The county wants to improve the wash's handling of flood waters in the hopes that the federal government will get rid of the

If that happens, homeowners no longer will have to pay flood insurance.

The committee, which includes officials from City Hall, is planning a public meeting to discuss ideas for improving the wash at p.m. March 29 at Alice Avenue Baptist Church, 1010 E. Alice Ave.

*Includes information from staff*

SERVING
Central Corridor
North Central Phoenix
Sunnyslope

Central Phoenix
COMMUNITY

THE PHOENIX Gazette
THE ARIZONA REPUBLI

Wednesday, February 23, 1994

# Residents seek larger role in planning wash

By Connie Cone Sexton
Staff writer

North Phoenix residents are worried that the Maricopa County Flood Control District is bullying its way into creating a 10th Street Wash.

Some members of the North Mountain Village Planning Committee would like to see the district hold up on acquiring property in the project area. They also want the design process slowed.

The objective of the go-slow proposal is getting the public more involved.

About 565 homes are in a designated flood plain, falling along the 10th Street Wash — a 50- to 100-foot-wide area that straddles 10th Street from about Griswold Road to Cheryl Drive.

The flood control district has hired a consultant to find ways to get rid of the flood-plain designation.

Michael Lopez, a project manager for the flood control district, said the county has two design contracts and a feasibility contract for the wash.

Lopez said the county wants to design the wash with detention basins that would be pleasing to the area residents.

But during a North Mountain Village Planning Committee meeting last Wednesday, residents cautioned the district to proceed carefully on the project.

Committee member Jeff Shumway asked the district to review its timeline. "Personally, I think you're trying to do this in a streamline manner," he said.

Shumway's reference was to a statement from the county that it could purchase right-of-way during the design phase of the project.

"There is a problem with perception," he said. "A lot of neighborhood people are concerned that the design is going ahead of the feasibility study."

Dave Longey, a member of the Sunnyslope Village Alliance, told flood control district officials that they may want to redraw the size of the wash. Because the Arizona Canal Diversion Channel is just below the wash area, Longey does not believe the wash needs to be so wide.

He said the wash area was drawn before the channel was built.

Longey raised another point. "You have three consultants — three separate advisory committees working on this," he said. "Let's back up a bit. Revisit the issue of basins with one advisory committee. We don't want to stop the project; we don't

See WASH, Page 5

## WASH

From Page 1

want it not to happen, we just want more public input."

The Sunnyslope Village Alliance has scheduled a public meeting to discuss the 10th Street Wash project. The meeting will be held at 7 p.m. Thursday at the Cowden Center, 9202 N. Second St.

County officials said they will hold public meetings to help chart the project. Among the questions to be answered is where the detention basins would be built.

Another area for residents to consider is the design of the wash. The flood control district has suggested that it may be developed into a recreational amenity. While the district could not pay for such improvements, it could incorporate the idea in the design of the wash.

# Citizens study fate of wash

## Panel helps design 10th St. drainage

By Ryan Konig
Staff writer

Homeowners along the 10th Street Wash are helping to design a better trap for an enemy expected but once a century.

The residents have been working for months with the Maricopa County Flood Control District to design changes to the natural drainage ditch that runs along 10th Street in north-central Phoenix.

The goal is to guard against flooding from typical storms and even a "100-year storm" — the kind of downpour that is expected to happen only once a century.

If that goal is met, the federal government would erase the flood plain designation that covers about 565 buildings on both sides of the wash. That would mean property owners with federally backed mortgages no longer would pay flood plain insurance of about $200 to $500 a year.

The wash collects storm-water runoff from the Phoenix Mountains and carries it to the Arizona Canal Diversion Channel.

This month, north-central residents began studying artists' drafts of different, possible improvements to the wash.

The residents will use the information to draft their vision of what they think the wash should look like. Funding is not yet available for 10th Street Wash improvements. No completion date has been set.

The narrowest version under consideration would include a concrete lining 19 feet wide and 5 feet deep. The lining would be fenced off, and the banks would be landscaped. Few homes would need to be removed.

For a more natural look, residents might opt for a wider, shallower version, one that would forgo a concrete lining and rely on natural materials. But, the wider the wash, the more homes that will have to be removed.

PHOENIX GAZETTE
AUGUST 19, 1994

The Arizona Republic/THE PHOENIX GAZETTE Wednesday, August 24, 1994

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Staff writer

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The wash collects storm water runoff from the Phoenix Mountains and carries it south to the Arizona Canal Diversion Channel. The channel takes the water to Skunk Creek in the West Valley.

This month, north-central residents began looking over artists' drafts of possible improvements to the wash.

Winifred Green, who lives near the wash and is president of the Sunnyslope Village Alliance, said she is pleased the county is allowing residents to help design the wash.

The residents will use the information to draft their vision of what they think the wash should look like. Funding is not yet available for 10th Street Wash improvements and no completion date has been set.

Dave Longey and other north-central residents set up a committee of residents and Flood Control District and City Hall officials to come up with a wash improvement plan. They expect to meet again in November.

Michael Lopez, project manager for the district, said several designs are being considered.

The narrowest version would include a concrete lining 19 feet wide and 5 feet deep. The lining would be fenced off and the banks would be landscaped. Few, if any, homes would need to be removed.

PHOENIX GAZETTE
Northwest Community Section

Wednesday, February 23, 1994

# Public input sought on flood plan

## Residents want work on design slowed

By Connie Cone Sexton
Staff writer

North Phoenix residents are worried that the Maricopa County Flood Control District is bullying its way into creating a 10th Street Wash.

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Phx Gazette 1/17/94

# The flood that stayed and stayed

## This nightmare of 18 months may haunt woman for years

**By Russ Hemphill**
THE PHOENIX GAZETTE

It's been 18 months since the flood.

But Diana Arbuckle can't forget.

She remembers every time she pays the mortgage. It's about $300 more a month than it used to be because she needed a loan to fix the water damage to her home.

She remembers each time she turns on one of the space heaters she's used since the water-damaged furnace died.

But most of all she remembers because of one simple fact: It could happen again.

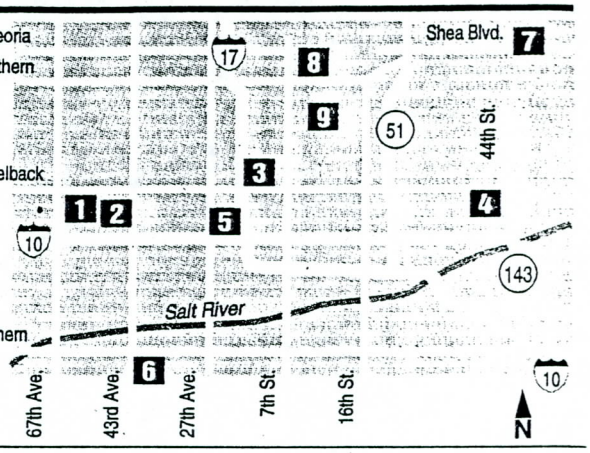
Arbuckle, 56, has lived in her modest, single-story home on the north bank of the Grand Canal in west Phoenix for 18 years.

Heavy rains flooded her home and about 30 others along Sunset Drive near 64th Drive in July 1992. It happened eight years earlier, too.

"It was a nightmare and it is still a nightmare because for me it's not over," Arbuckle said.

### Most-commonly flooded areas in Phoenix

1. 64th and Sunset drives
2. 47th and Crittenden drives
3. 24th Ave. and Camelback Rd.
4. 41st St. and Calle Redondo
5. 26th Ave. and Verde Lane
6. 43rd Ave. and Burgess Lane
7. 46th St. and Shea Blvd.
8. 10th Street wash
9. 10th Ave. and McLellan Blvd.




SOURCE: City of Phoenix

THE PHOENIX GAZETTE

> "It was a nightmare and it is still a nightmare because for me it's not over."
>
> **Diana Arbuckle**
> **Flood victim**

But help may be on the way.

The city has rated the Sunset Drive neighborhood as the worst of nine areas in urgent need of a flood-prevention project, a designation which might mean more money for flood control.

The Maricopa County Flood Control District, which Phoenix asked to pay for the projects, is studying the list. The projects are expected to cost millions of dollars.

The county Board of Supervisors late next month is expected to choose which projects will be funded.

Neil Erwin, chief engineer and general manager of the flood control district, said

See ■**FLOODS,** Page **B6**

## ■ FLOODS

From B1

there's a good chance there will be money for the project in Arbuckle's neighborhood and three other Phoenix areas:

- ■43rd Avenue and Burgess Lane.
- ■10th Street Wash.
- ■47th Drive and Crittenden Drive.

But there are no guarantees. City projects compete against about 40 other flood control projects across the county.

And the county spends about $35 million a year on flood control projects.

Even after a project is chosen, Erwin said, it might be two or three years before construction begins. Other projects are in line first.

In the meantime, Arbuckle waits.

Cheap kitchen cabinets bought by the insurance company a little more than a year ago are falling apart. The foundation is cracking because of the ground settling after the flood. The back fence is damaged.

"There was so much damage in my house it was unreal," Arbuckle said.

"If there's another flood they're just going to have to condemn it," her daughter, Mary, said. "This house won't make it through another one."

**Russell Gates** / THE PHOENIX GAZETTE

**Diana Arbuckle hopes for a flood control project — before her home is flooded a third time. She's shown with daughter Diana and grandson Dusty.**

# 11-acre flood basin to be built

## 27 north-central homes to be razed

By Ryan Konig
Staff writer

Twenty-seven homes in north-central Phoenix will be wiped out to protect hundreds of other homes from future floods.

The Maricopa County Flood Control District will build an 11-acre flood basin near 10th Street and Alice Avenue.

The land will be lowered about 8 feet and will hold about 3.3 million cubic feet of water, or about 23 million gallons.

The county plans to notify the homeowners and give offers for their properties in April.

Flood Control officials said the homeowners will be offered fair market value for their homes and reimbursed for moving.

**"I moved here in 1951 and I have yet to see a flood."**
**Joe Kellwood**
Owns property near flood basin

Most of the 27 homes are west of the Alice Avenue Baptist Church, 1010 E. Alice Ave.

The project was announced to Sunnyslope residents during a public meeting Tuesday at the church.

The basin is part of a $6 million project to reduce the threat of flooding along the 10th Street Wash. The wash is a natural ditch that carries rainwater south from the Phoenix Mountains.

About 565 homes are in a designated flood plain that straddles 10th Street from about Griswold Road to Cheryl Drive.

Flood Control project manager Michael Lopez said the Alice Avenue basin will reduce the flood plain by 40 to 50 percent.

The county also is planning a three-acre basin on vacant land near Cheryl Drive and Cave Creek Road to further reduce the threat of flooding by about 15 percent, Lopez said.

The basins could help to take more than 300 area homeowners off the federal list of people required to pay flood plain insurance, county officials said.

Many area residents said they don't need the flood basins.

"I moved here in 1951 and I have yet to see a flood," Joe Kellwood said. His property is just east of the future Alice Avenue basin.

Kellwood said that if the county were concerned about protecting people from floods, then it would have built walls along the wash to keep children from crossing the wash during rainstorms.

"The (school) buses let the children off and then they walk across the wash to get home."

Several residents, including Bobie King, said the county should have worked harder to notify local homeowners about the plans.

The $6 million project includes buying the land for the basins, helping homeowners relocate and designing and constructing the basins. The money also is to pay for a study on other ways to reduce flooding.

A committee of Sunnyslope residents and county and city officials have been meeting for a month to develop plans to reduce flooding in the area.

See HOMES, Page 4



# HOMES

From Page 1

Officials plan to put on about a dozen public meetings to discuss the design of the basins and possible modifications to the 10th Street Wash to further reduce the threat of flooding.

Dave Longey, a Sunnyslope resident, said he was happy with how the Flood Control District and other government agencies worked with local residents to come up with ideas for reducing flooding.

Longey pushed to form the committee to give residents more say in government plans to reduce flooding in Sunnyslope.

The committee is discussing ideas for turning the Alice Avenue basin into a park. There are several basins throughout the Valley intended to collect runoff flood water during rainstorms.

Some of the basins are landscaped with grass and maintained as parks.

Ed Huffman, a Sunnyslope resident, said the Flood Control District should hold off building the basin until Phoenix commits to developing the basin as a park.

Otherwise, Huffman said, nearby homeowners will be living next to a giant dusty pit.

Northwest Phoenix
COMMUNITY
THE PHOENIX Gazette
THE ARIZONA REPUBLI
DECEMBER 9th 1994

# 10th Street Wash improvements in the wind

By Ryan Konig
Staff writer

A county agency hopes to complete a study next year on improving the 10th Street Wash to reduce the chance of flooding in north-central Phoenix.

The wash, a natural drainage ditch, carries rainwater from the Phoenix Mountains to the Arizona Canal Diversion Channel.

The Maricopa County Flood Control District is spending about $6 million to build two storm water detention basins near the wash and to study ways of improving the wash so it can carry more water without flooding.

Michael Lopez, project manager for the district, said several alternatives are being considered by a committee of city and county officials and Sunnyslope residents.

The narrowest version would include a concrete lining 19 feet wide and 5 feet deep. The lining would be fenced off, and the banks would be landscaped. Few, if any, homes would need to be removed.

For a more natural look, residents might opt for a wider, more shallow version, one that would forgo a concrete lining and rely on natural materials. But, the wider the wash, the more homes that will have to be removed.

James Phipps, a spokesman for the district, said the designs are being studied to see how many homes and properties would be affected.

About 565 buildings near the wash are in an area designated as a flood plain by the federal government.

Improvements to the wash will reduce the size of the designated flood plain, meaning fewer property owners will have to pay flood plain insurance, which can cost $200 to $500 a year.

Sunnyslope Sentinel
Opinion Page
May 4-10, 1994

# Sunnyslope homes will fall to bulldozer

By Don Taylor

Frankly, I'm not sure if this is a time to rejoice or be sad. One the one hand, I have lived in this community since I was a child of eight (1938), and each time something old is removed, I feel a sense of loss.

I suppose everyone feels that their old home town was something special, and as new development chips away at "the way it was", there is some regret.

I think my childhood finally ended when I got my first look at the vacant lot at 8814 N. 2nd Way, where my parents home stood for so many years. I am not against progress, and I can see where, in many instances, older structures must go to make way for something better. *I question whether it is ethically, morally or economically correct for a civil or government entity to cause a property owner to be removed from a home or business with promises of bigger and better things to come, and then fail to keep those promises.*

Case in point, properties like Mike Barra's store and the other homes and businesses, between Dunlap and Townley, which were squeezed out to make way for a hyped business and shopping center which was to be *a thing of beauty and a local economy booster.*

It never happened, and this community lost a major portion of its core properties because of broken promises by developers and the city of Phoenix.

Now, county flood control has decided that the multi-billion dollar Corps of Engineers flood control ditch, adjacent to the old canal, isn't capable of draining the 10th Street wash quickly enough to save us from that imaginary 100 year old flood.

That's simple - widen, deepen, and beautify the darn ditch?

No, says county flood control, two detention basins will be required to hold excess water until the wash can carry it away (by most definitions, a matter of hours, if not minutes).

When news of this proposal reached local citizen groups, and they began to protest a lack of citizen involvement, word came down, (not from God), that if the *flood control district was not allowed to proceed as planned, they just might take the money to some other neighborhood, and do nothing for Sunnyslope.*

However, matters were resolved and the acquisition of property is underway at this moment.

Several pieces of property to the north and west of the Alice Avenue Baptist Church, as well as some farther north, up Cave Creek Road near the trailer park, will now become a dry lake bed.

If (City of Phoenix) Parks and Recreation can't find the funds to seed, landscape, and turn it into a park right away, it will sit as a dusty, ugly eyesore like the Target F properties between Dunlap and Townley.

Without a doubt, some of the property owners will be better reimbursed than they could have hoped for on the open market. To the community as a whole, it means that several more pieces of property have been removed from the tax rolls.

Amazingly, comes the next hard rain, and pedestrians and drivers will see no relief in their efforts to cross a flooded wash. No bridges on any of the East-West streets provided in this project. *The pavement will remain through the bottom of the wash,* with the single exception of Butler Drive, which is bridged. Bridging is the responsibility of the city of Phoenix, not the county flood control district.

As the owner of a nearby home, I will not be sorry to see these old house go, IF something more attractive to the eye fills the denuded land in a reasonable period of time.

*As a long time resident, I will feel pain with each bite of the earth moving equipment. Bit by bit, this little community is losing its identity.. Never known for its attractiveness, it was and is my hometown.*

Blair Nelson Taylor/Special for The Arizona Republic

**DEEP TROUBLE /** Water from last week's storm swirls around a car at Seventh and Grovers avenues. The Phoenix Fire Department on Saturday said the vehicle, which apparently has been there since Friday, was found abandoned. The department assumes no one was hurt.

# Wittmann man killed in flooded Hassayampa

A 56-year-old Wittmann man was killed early Saturday morning when he was washed away by the Hassayampa River at an unbridged river crossing, the Maricopa County Sheriff's Office said.

Antonio Gonzalez, an automobile mechanic, is believed to have been on his way to work when he drove into the flooded river about 4 a.m. on Patton Road, about 10 miles west of Grand Avenue near Wittmann, said Duane Brady, a Sheriff's Office spokesman.

"He apparently got stuck and tried to climb out of the vehicle," Brady said.

Gonzalez was washed away, and his body was found about a mile downstream about 7 a.m, he said.

"There was a sign posted that said, 'Don't cross if flooded.' He apparently ignored that," Brady said.

The river flooded as a result of heavy rains in Maricopa County on Thursday and Friday.

## Swift-water rescue

Tim Gallagher of the Phoenix Fire Department clings to William Babela, 62, during a 90-minute rescue Wednesday at 35th Avenue and Pinnacle Peak Road. Babela and his wife, Marie, were helped from their truck minutes before it was swept away. (The dangers of driving through floodwaters: B1.)

Peter Schwepker / THE PHOENIX GAZETTE

A2 THE PHOENIX GAZETTE Thur., Aug. 16, 1990

# Tornado brushes Phoenix

## Lightning kills 1, storm floods streets

**By David Cannella and Jim Walsh**
The Arizona Republic

A rare tornado struck north Phoenix, and a golfer was killed by lightning near Apache Junction as strong thunderstorms moved through the Valley and state on Monday.

The storms drenched Labor Day picnickers, dropping as much as 3.58 inches of rain. Street flooding was reported in Cottonwood, Prescott and much of the Valley, where winds topped 80 mph.

The tornado hit at about 5:15 p.m. north of Union Hills Drive between Seventh Street and Seventh Avenue, a National Weather Service spokesman said.

"At first, I thought it was a fire," said John Dyer, 29, who lives near Central Avenue and Union Hills. "It looked like a stream of smoke from the ground reaching up to the sky.

"It basically turned into a big brown cloud and disappeared" within five minutes, Dyer said.

While common in the Midwest, tornados are unusual in the desert.

"It is pretty rare, less than one per year," said David Bjorem, a Weather Service forecaster. "In fact, usually we go years between confirming one down."

Additional funnel clouds appeared to be forming to the northeast of the area where the tornado hit, but none touched down, Bjorem said.

The confirmed tornado prompted the Weather Service to issue a tornado warning for the north Valley for a half-hour Monday evening.

The golfer, whose name was not released, was hit by lightning at 3:30 p.m. as he played on the Gold Canyon Ranch golf course southeast of Apache Junction.

Apache Junction Fire Department officials said the man had "six or seven exit wounds" from the lightning strike. He died at Valley Lutheran Hospital an hour later.

Bjorem said two storm cells Monday whipped up powerful winds and heavy rain in northwestern and eastern Maricopa County. The Weather Service issued a severe-thunderstorm warning for the Valley from 5 to 8 p.m.

— *See* **STORM,** *page A 7*

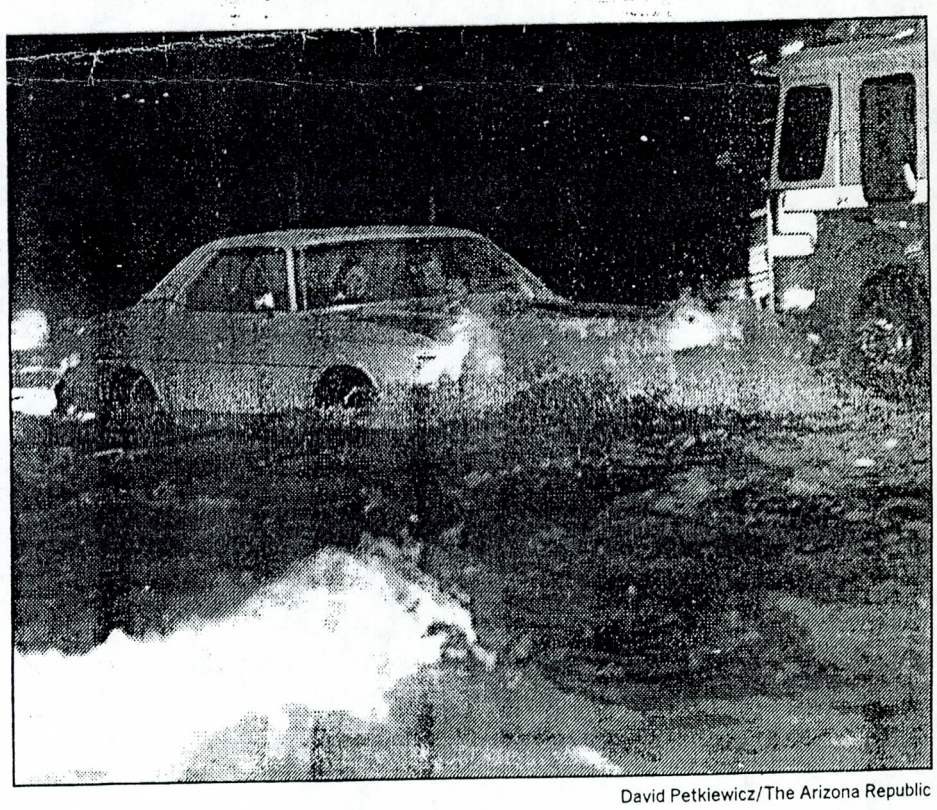
### CHANCE OF RAIN ACROSS STATE

Percentage chance of precipitation today.

| Place | Chance of rain |
|---|---|
| Flagstaff | 80% |
| Grand Canyon | 80% |
| Kingman | 50% |
| Payson | 70% |
| Phoenix | 50% |
| Prescott | 70% |
| Show Low | 80% |
| Sierra Vista | 80% |
| Tucson | 60% |
| Yuma | 40% |

Source: National Weather Service

John Dyer/Special fc



David Petkiewicz/The Arizona Republic

David Petkiewicz/The Arizona Republic

A motorist with a stalled car gets a push from bystanders on Grand Avenue near 55th Avenue. While only a trace of rain — 0.01 inch — officially fell at Sky Harbor International Airport on Monday, nearly 4 inches fell elsewhere.

# Storm hurls twister, flooding at Phoenix

— STORM, *from page A1*

The sudden storm sent the mercury plummeting. The temperature dropped from 98 degrees at 5 p.m. to 80 degrees an hour later.

A 19-year-old Phoenix man who doesn't swim found himself in a precarious spot Monday night: atop his pickup truck in the middle of a raging Agua Fria River.

Henry Wiese was rescued by a state Department of Public Safety helicopter and taken to Good Samaritan Regional Medical Center, where he was treated for hypothermia, said Tom Knapp, a spokesman for the Rural/Metro Fire Department.

Wiese became stranded when he attempted to cross the normally dry river bed at 117th Avenue and Camelback Road, Knapp said.

Meanwhile, students at three Valley high schools can thank the rains for extending their weekend through today.

Moon Valley, Greenway and Glendale high schools will be closed today as staff members mop up flooded buildings, said Bruce Florence, a spokesman for the Glendale Union High School District.

About 15,000 Arizona Public Service customers were without power at the height of the storm, including 8,000 who lost service in northwest Phoenix when the Loma Vista substation was flooded.

Most customers had power back by 9 p.m., but some in the far west Valley were not expected regain service until late this morning or early this afternoon, said Rebecca Watral, an APS spokeswoman.

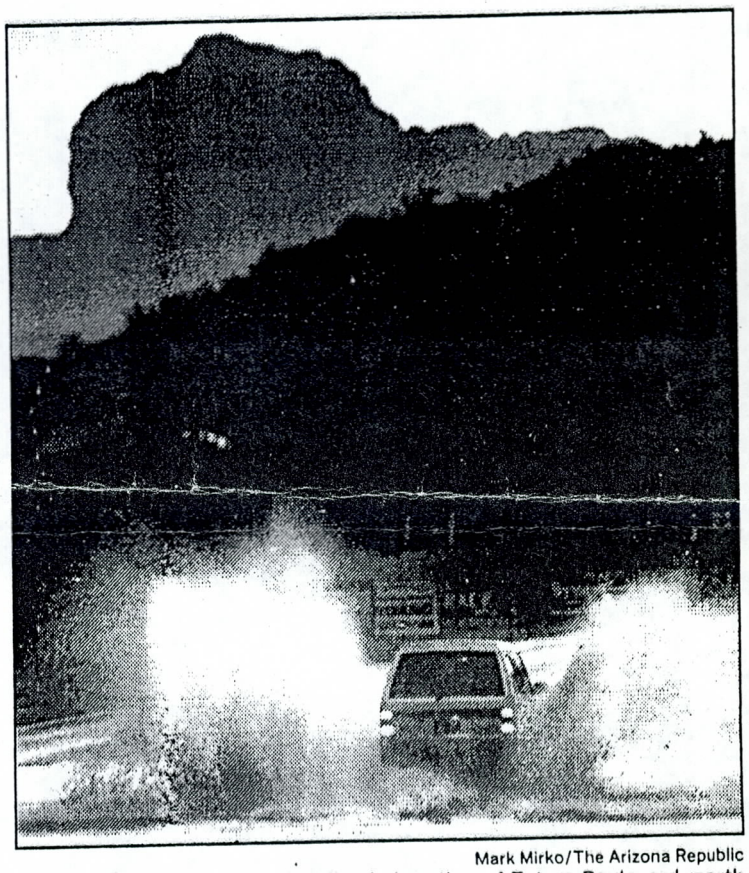
Salt River Project officials said about 20,000 customers lost power, mostly in the east Valley as 17 power poles were knocked down. Power was restored to all but small pockets of customers by late Monday, spokesmen said.

The Phoenix forecast for today calls for a 50 percent chance of rain and a high in the upper 90s. Rain also is forecast for much of the state.

While only a trace of rain — 0.01 inch — was recorded at Sky Harbor International Airport on Monday, 3.58 inches of rain was reported at 82nd Avenue and Thunderbird Road. Other areas, including Chandler and Gilbert, received no rain.

The good luck of holiday picnickers ran out shortly before 4 p.m. at Lost Dutchman's State Park near Apache Junction, when a rainstorm that had been lurking over the Superstition Mountains hit, according to Park Ranger Diana Bishop.

"We had a few picnickers earlier," she said. "But it (the heavy rain) drove them away."



Mark Mirko/The Arizona Republic

A motorist splashes through a flooded portion of Tatum Boulevard, north of Shea Boulevard. Today's forecast calls for a 50 percent chance of rain.

More than 100 people spent part of the day at the park, but many left early because of the threatening weather, Bishop said.

Wind gusts of 80 mph were reported by Rural/Metro in Apache Junction, and a 68-mph gust was reported at Phoenix-Goodyear Municipal Airport.

Severe street flooding was reported in east Mesa and north Phoenix.

Bob Jordan, who lives near 64th Street and Brown Road in east Mesa, said rain "came down in buckets."

"From sidewalk to sidewalk there was water," he said, adding that a series of telephone poles "fell down like bowling pins" along 66th Street near Recker Road.

A Rural/Metro dispatch supervisor said flooding was reported at a home near Cactus and Hayden roads in north Scottsdale, and a tree caught fire near Shea Boulevard and Miller Road, possibly from a lightning strike.

A stretch of 59th Avenue between Northern and Glendale avenues resembled a river, with stalled cars dotting the way.

Thom Leonard of the 7500 block of North 59th Avenue, got some extra use out of sandbags he had bought three weeks ago during a thunderstorm.

"We were beginning to think they were a waste of money," he said. "But this storm is way worse than the last one."

Waves of water swept across Union Hills Drive and Seventh Street, where the flooding was at least three feet deep.

Underpasses along the Black Canyon Freeway from Peoria Avenue north to Union Hills Drive were flooded, although the highway remained open.

Officer Roger Austin, a Tempe police spokesman, said Priest Road and Mill Avenue will be closed through the Salt River bottom during this morning's rush hour.

However, drivers will be able to cross the river on the Mill Avenue bridge in both directions, he said.

Motorists coming home after the long weekend were hampered by the weather and by rockslides on Arizona 87 just north of the Saguaro Lake turnoff and on U.S. 60, seven miles west of Miami.

In the Verde Valley, an afternoon thunderstorm uprooted trees and downed power poles.

More than 2 inches of rain fell within an hour in Prescott, the National Weather Service reported.

"We had a few lightening strikes, and then the sky just opened up," said Tom Driver, a bartender at The Palace on downtown's Whiskey Row. "For a half hour, you couldn't see across the street."

# Wintry blast hits state with rain, snow

## Reprieve called likely to linger into next week

By Ben Winton
THE PHOENIX GAZETTE

This is Arizona, land of cactus and dry deserts?

Even the weather forecasters were asking that question after the latest in a barrage of wintry storms plowed through Arizona on Wednesday.

But it looks like the state is in for a reprieve, at least for the next several days. Skies began to clear today and the Valley forecast calls for sunny, warmer weather Friday with a high in the mid-70s.

A weak but cold weather disturbance is expected to bring cooler air into the state Saturday, with some clouds Sunday and Monday.

As for big storm fronts, none is foreseen at the moment, though the long-range forecast is tricky at best, forecaster Dave Bjorem said. "For all we know we could be through for the summer."

Wednesday's storm dumped more than a foot of snow on parts of Arizona's high country, forcing rescuers for a second day to halt their search for a missing plane until the weather clears, and causing first lady Barbara Bush to cancel a visit today to the Grand Canyon, where she was to have kicked off the National Park Service's 75th anniversary celebration.

> "The skiing's GREAT!"
>
> Recorded voice on answering machine at Fairfield Snow Bowl

Phoenix Fire Department Capt. Steven Young, his daughter and two teenagers have been missing since Friday, when their single-engine Cessna disappeared during a skiing trip to Sunrise Ski Resort east of Show Low.

Winds up to 35 mph grounded search aircraft, and heavy snow made many roads in the rugged area north of the Mogollon Rim impassable, said John Paulsen, spokesman for the Arizona Division of Emergency Services.

Flagstaff had 17 inches of snow on the ground today, 13 of which fell since Tuesday. Winslow had 6 inches of new snow and Prescott reported 3 inches from the latest storm.

The state Department of Public Safety office in Flagstaff reported no major accidents or road closures.

Temperatures in the Valley plummeted from 63 degrees to 42 degrees Wednesday afternoon as the edge of a cold front passed at about 3 p.m., leaving a dusting of snow in Scottsdale, east Mesa and at Sky Harbor International Airport, meteorologist John Tenharkel said.

Big, wet snowflakes fell on Fountain Hills but melted before hitting the ground, which is 2,100 feet above sea level. Wickenburg received a half-inch of snow Wednesday afternoon, Tenharkel said.

Many of the mountains surrounding the Valley, including the Estrellas in the southwest and the McDowells in the northeast, were coated by a dusting of snow Wednesday afternoon.

Apache Junction public works officials barricaded many of the city's roads, including Southern Avenue and Broadway Road, due to flooding.

Many unbridged crossings over the Salt River were expected to be closed beginning today.

"We've had so much rain, it's saturated the ground," said Candi Nilles, a dispatcher for the Apache Junction Police Department.

While the weather made life for many in the Valley miserable, snow skiers were basking in the late, winter-like weather.

"The skiing's GREAT!" exclaimed a recorded voice on an answering machine at the Fairfield Snow Bowl, north of Flagstaff.

More than 15 inches of snow fell Wednesday on skiing areas north of Flagstaff, bringing the Snow Bowl base to 93 inches.

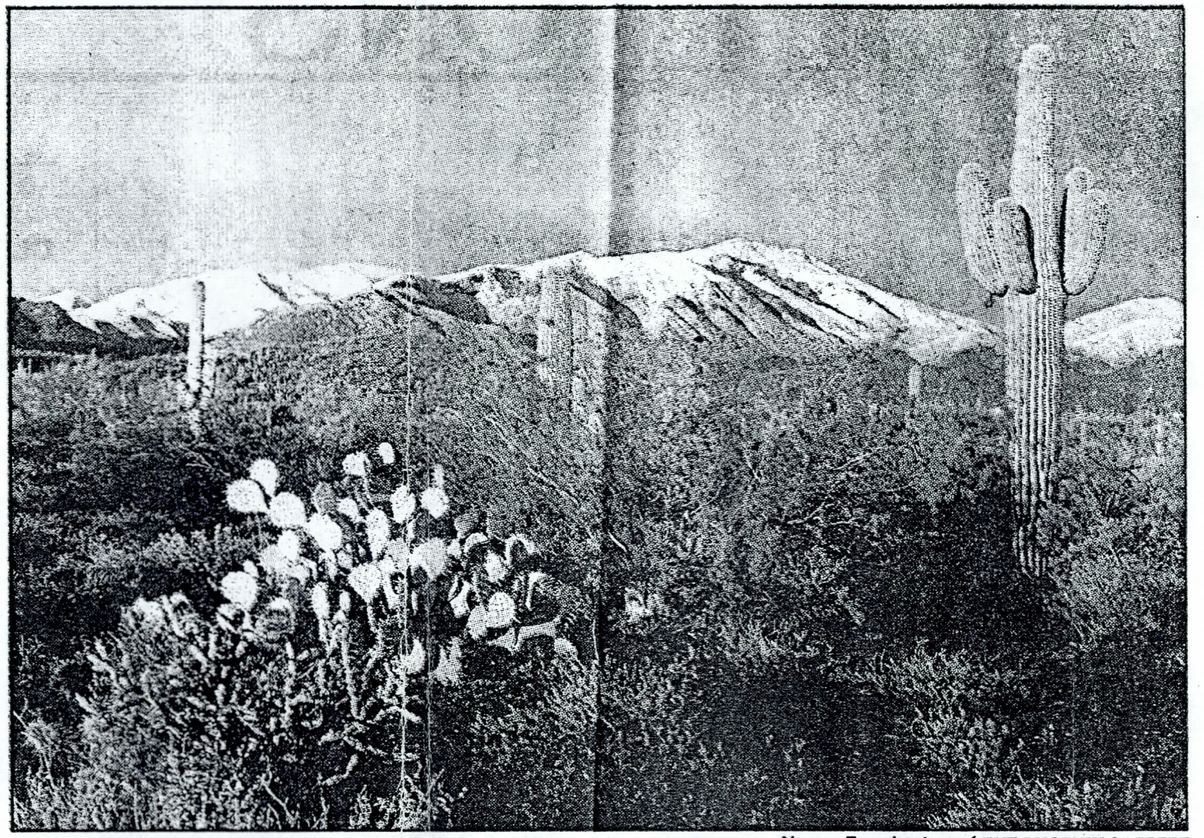
In spite of the weather, no records have been set in the Valley, Tenharkel said.

Between 2 and 5:30 p.m. Wednesday, when the rain hit, 0.43 of an inch of precipitation fell at Sky Harbor.

The record rainfall for March 27 is 0.64 inches, recorded in 1924, he said.

The March rainfall record for Phoenix was set in 1941, when 4.82 inches was recorded for the month. So far, the March total is 2.05 inches.

The Valley's year-to-date rainfall is 3.23 inches, 1.2 inches above normal.



Nancy Engebretson / THE PHOENIX GAZETTE

**A window of sunlight at the end of an otherwise cloudy, rainy day illuminates the snow-covered mountains north of Carefree on Wednesday. Mountains circling the Valley were dusted with snow as temperatures plummeted.**

## Rivers running as wet storms soak Arizona

By Mike Padgett
THE PHOENIX GAZETTE

A major storm spawned in the Gulf of Alaska is pouring so much rain and snow in central Arizona that water officials think they might have to keep dumping water into the normally dry Salt River for several weeks.

That's because of a triple water threat — the storm entering Arizona late Wednesday was said to have as much moisture as a storm that passed through Tuesday, the six reservoirs on the Salt and Verde rivers are at 81 percent capacity, and a large amount of snow on the watersheds will melt soon.

Salt River Project reservoirs have received almost as much runoff this month as in all of 1989 and 1990 combined, spokesman Jeff Eldot said.

Since March 1, about 800,000 acre-feet of runoff — almost enough to supply the Phoenix area's needs for one year — have poured into SRP reservoirs, Eldot said. In comparison, SRP recorded 480,000 acre-feet of runoff last year and 453,000 acre-feet ion 1989.

SRP estimates the snow on the Salt River watershed to be about 170 percent of average. On the Verde River watershed, the snow level is estimated to be 233 percent of average.

So even if the snow melts slowly, the ground is so saturated and the lakes are so full that the water releases that started Monday could last "for several weeks," Eldot said.

But if the storm system is replaced by a warming trend, which is expected this weekend, the snow will melt faster. That would force SRP workers to increase the water being dumped into the usually dry river, Eldot said.

"There's a tremendous amount of snow and rain, particularly on the Verde system."

By noon Wednesday, SRP officials had increased the release of water from the Granite Reef Diversion Dam into the Salt River northeast of Mesa to 3,500 cubic feet per second. The release started Monday at 500 cfs.

Water also was being released from Lake Pleasant into the Agua Fria River at the rate of 4,000 cfs, water authorities said. It reportedly was the first release into the Agua Fria since 1983.

*Includes information from reporter Ben Winton*

Phoenix Gazette
Aug. 15, 1990

...sident Bush said
...dom and "way of
...e Persian Gulf
...'s Saddam Hus-

added, "we are striking a blow for the principle that might does not make right."

Bush made his comments in a speech to

...president. Hussein arrived in his self-appointed role as mediator in the crisis that began when Saddam overran Kuwait 13 days ago and positioned troops on the

from the Iraqi president.

The president went to the Pentagon for a briefing on the crisis, which has led him

Hussein, Bush said he saw no hope "right now" of a diplomatic solution to the crisis.

See ■IRAQ, Page A3

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...EATING, Page A3

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...ASEBALL, Page A6

Peter Schwepker / THE PHOENIX GAZETTE

**Tuesday's storm brought several rescues like this one: Julian Thomson of north Phoenix tries to drive across the running waters of Skunk Creek at Pinnacle Peak Road near 35th Avenue, but his car stalls. Below, Thomson is pulled to safety before his car washes away.**

# More rain likely to drench Valley

## Flooded streets create commuter nightmares

By THE PHOENIX GAZETTE

Heavy rains continued to soak the Valley today after drenching it all day Tuesday, flooding houses and closing roads.

Weather forecasts said to expect still more rain.

"It's still an unstable, moist air mass — low pressure and a lot of moisture," National Weather Service meteorologist Bob Wilt said this morning. "Those ingredients mean rain. There might be some drying in a few days, but it will be slow."

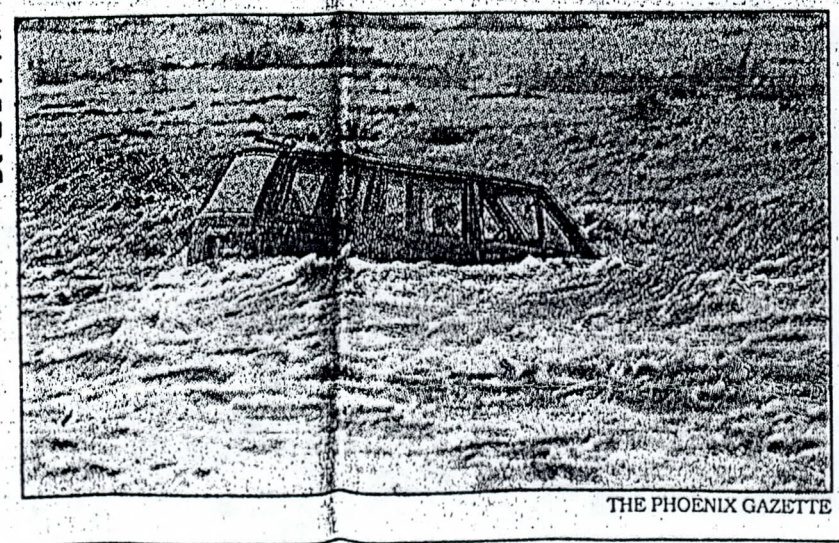
Flooded roads caused commuters nightmares, with many people saying it took double or triple their normal driving time to get to work.

Claudia Schnabl, a spokeswoman for the American Red

See ■RAIN, Page A12

THE PHOENIX GAZETTE

**About 25 minutes after Phoenix firefighters pulled Julian Thomson from his vehicle during Tuesday's flooding, it floats down Skunk Creek.**



THE PHOENIX GAZETTE

## Monsoon called wettest Valley has seen in 6 years

By Ryan Konig
THE PHOENIX GAZETTE

It could be the wettest monsoon season in years, and it has dumped enough rainwater on the city already to fill every building in Phoenix's skyline.

And the monsoon is still going strong with as much as four weeks to go before puddles are forgotten and winter residents begin returning to the Valley for its famous dry climate.

This summer's drenching appears to be Phoenix's wettest in six years, said Craig Ellis, a meteorologist with the National Weather Service.

Shifty winds get credit for creating a monsoon. For Arizona, the season generally begins in early July when

See ■WETTEST, Page A2

# ...DE TODAY ■

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B1

...Olive Co. finds ...that threatens

### Business

About 60 percent of U.S. companies regulate smoking, and about 6 percent refuse to hire smokers and will fire one if caught.

B7

### Tempo

Shoppers and merchants are

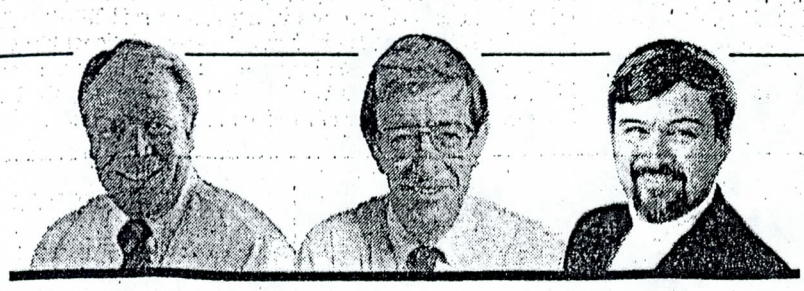
### Sports

The Phoenix Roadrunners hire Ralph Backstrom, who was a member of six Stanley Cup teams, as their coach.

D1

### Nation

Regulators seek to compel testi-



# VOICES OF THE GAZETTE

### Sam Lowe

The secret of staying married to the same

### Joe Gilmartin

The Arizona State football team is poised to

### Ken LaFave

The nature of art, and not its "morality," is the

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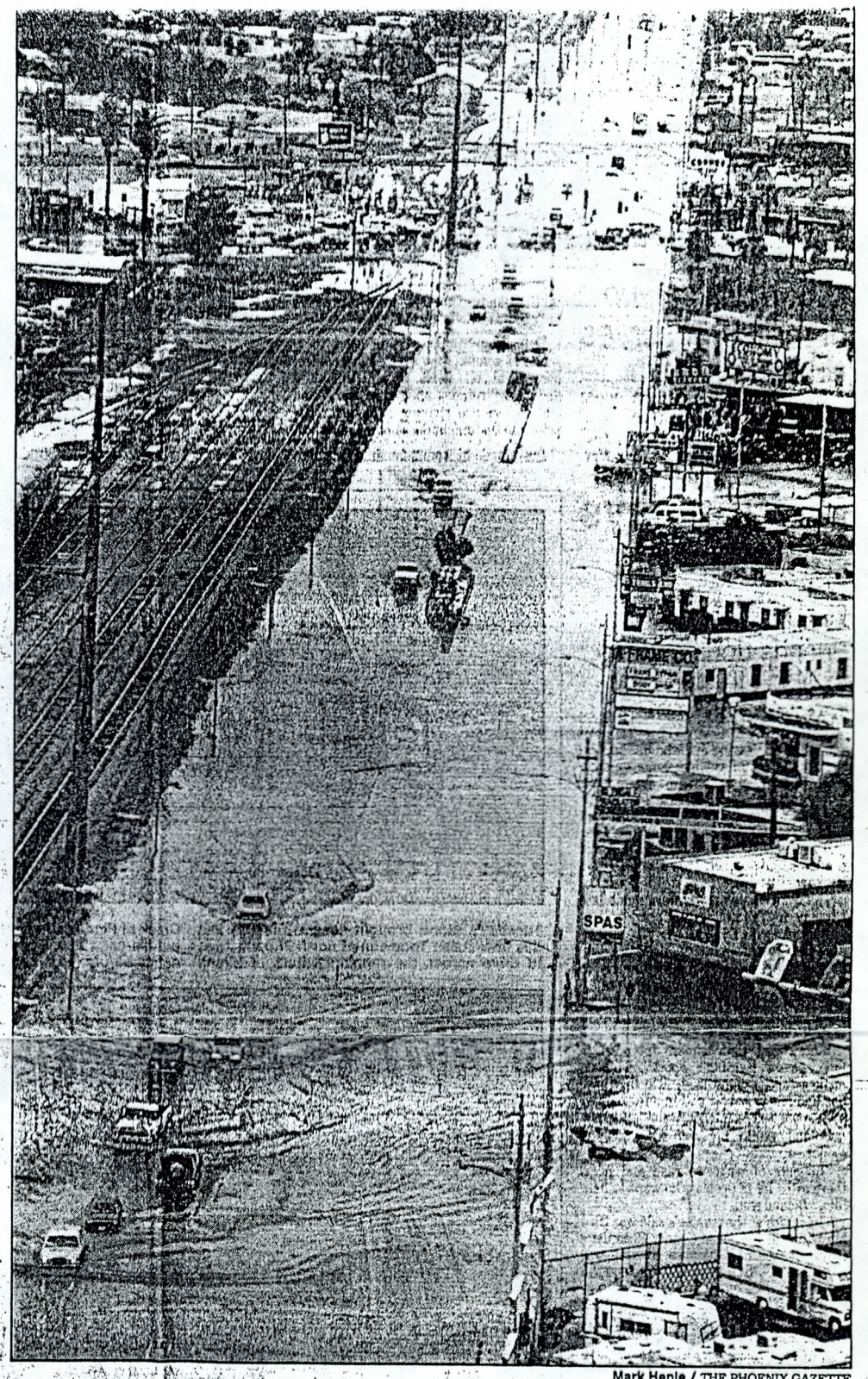
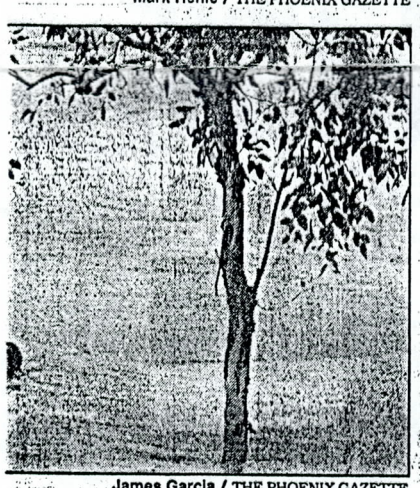
THE PHOENIX GAZETTE
ural-Metro firefighters Bob Bagwell (center) and
tranded today in the Indian Bend wash.




Mark Henle / THE PHOENIX GAZETTE
Cars plow their way along a flooded Grand Avenue, just south of Glendale Avenue, after this morning's storms.

Mark Henle / THE PHOENIX GAZETTE
Grand Avenue was closed to traffic later, one of several streets to be closed.



James Garcia / THE PHOENIX GAZETTE

# school chief's son almost drowns in heavy runoff

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nearly drowned Tuesday when he was sucked into a 12-inch metal drain while playing in storm runoff waters.

Dennis Dowling was saved by his friend, Billy White, 15, who freed him as he was being pulled into the metal culvert.

The youth and some friends were inner tubing in a residential greenbelt near 33rd and Beverly avenues in Tuesday's heavy rains when the accident occurred shortly after noon.

Sandra Dowling said her son was hospitalized at Thunderbird Samaritan Hospital for deep scrape injuries to his legs, and he also was fighting a fever of 103 degrees. She said doctors were concerned about a bacterial infection from the dirty water.

"When I got there (the hospital), he was pretty shook up," Sandra Dowling said early today. "The first thing he said to me was, 'Mom, I thought I was going to drown. I didn't think I was going to make it out. If it weren't for Billy, I wouldn't have made it.' "

Sandra Dowling said her son told her he stood up in the heavy runoff "and started to walk around, and next thing you know, it sucked him and he lost his balance and he went under."

White said two 12-inch metal drain pipes were covered with about 4 feet of runoff. Because of the depth of the runoff, Dowling was under water. He managed to get his right leg out of the drain and get above water to call for help.

White, who escaped with a few minor scrapes, said he wasn't sure what was happening because he couldn't see the metal drain pipes. "I just thought he was drowning."

White said he ducked under water and reached under Dowling's arms. "I yanked up. Then it sucked one of my feet in. Then I got out. I hooked under his arms again and pulled, and he just came out."

Sandra Dowling said, "By the time he'd come up, Billy said his (Dennis') lips were just a little bit colored and he was in pretty bad shape."

While doctors said the boy's leg muscles and tendons were not cut, "there is some nerve damage," Dowling said.

Doctors told her Dennis was lucky the scrapes were parallel to the leg, instead of cutting into the leg toward the bone. "That way it missed the artery. Missed the artery by a hair. He would have bled to death if it had gotten the artery."

Dowling said her son had been a star player in Pop Warner football. She said he took high honors in track and baseball when he was in the Washington School District.

## WETTEST

From A1

winds shift to the southeast and south, bringing in hot, moist air from the gulfs of Mexico and California. This shift, which usually subsides in September, brings rain and thunderstorms. Meteorologists consider it a monsoon day if the average daily dew point is 55 degrees or higher.

This year, the monsoon began June 29. Since then, the National Weather Service has recorded 3.02 inches of rainfall at Sky Harbor International Airport, as of 7 p.m. Tuesday.

The north-central part of Phoenix and the East Valley probably have received more than 3 inches during the monsoon, said Bill Bestel, a meteorologist with the National Weather Service.

Least affected by the downpours has been the West Valley area near Goodyear, Bestel said.

If all 403 square miles of Phoenix has received 3 inches of rain since June 29, then more than 20 billion gallons of water would have fallen on this desert city.

That would be enough water to fill the state's tallest building — Valley Bank Center at Van Buren Street and Central Avenue — about 400 times over.

The building is 483 feet high and has the capacity to contain about 50 million gallons of water.

There are benefits to the rain: On Tuesday, the high was 78 degrees. That is the coolest maximum temperature ever recorded in Phoenix on Aug. 14. The previous record was 91 degrees on Aug. 14, 1935.

The wettest monsoon season in Phoenix occurred in 1984 when more than 9 inches of rain hit the city.