

Agua Fria Watercourse Master Plan

Implementation Briefing

May 31, 2007



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A Bold, New Identity: Walking the Vision

Overview

A growing combination of forces offers an unprecedented opportunity to realize the vision for the Agua Fria River. Recent overtures by several aggregate mining operators open a path to channelizing the Agua Fria River between Indian School Road and Peoria Avenue – all in all, six miles. A separate proposal would channelize 2.5 miles from Bell Road to Rose Garden Lane. Certainty of timely channelization would benefit MCDOT and cities' plans for new or upgraded river crossings. Meanwhile, recreational needs of Phoenix and Glendale have ripened. El Mirage, Youngtown, and Surprise could finally leverage this momentum to determine the fate of the Agua Fria in their communities.

Indian School Road to Glendale Avenue

CEMEX proposes channelization between Indian School Road and Camelback Road and possibly as far as the New River confluence. Hanson Aggregates and M R Tanner Mining want to build a levee from Camelback Road to Bethany Home Road using return concrete. These two operations are adjacent to CEMEX and ABC Sand & Rock. Coordinating among them can extend channelization to Glendale Avenue.

Glendale Avenue to Olive Avenue

Vulcan Materials controls the river between Glendale Avenue and Northern Avenue. Rinker Materials (purchase by CEMEX pending) controls the segment between Northern Avenue and Olive Avenue. The proposed Northern Parkway lies within this reach.

Olive Avenue to Peoria Avenue

Success in the Agua Fria River south of Olive Avenue may shift the climate surrounding the Salt River Materials Group operation between Olive Avenue and Peoria Avenue.

Bell Road to Rose Garden Lane

LaFarge proposes channelizing the river between Bell Road and Rose Garden Lane as an alternative to deepening the existing "Walker Pit" to 200 feet. The unique financial challenge this presents for public-private partnership befits a Channelization District.

Agua Fria Bridges

Assurances of channelization benefits the following new or upgraded bridges:

- Glendale Avenue
- Northern Parkway
- Olive Avenue
- Peoria Avenue
- Deer Valley Road/Williams Drive
- Happy Valley Parkway drop/grade control structure

Incentives for Adoption of the Channelization Alternative

City	Incentive
Phoenix	Camelback Ranch Regional Park alternative sites
Glendale	Recreational use adjacent to airport and Northern Parkway
Peoria	Northern Parkway
El Mirage	Revenue source and ability to manage mining in the river
Youngtown	Ability to manage mining in the river
Surprise	Ability to manage mining in the river

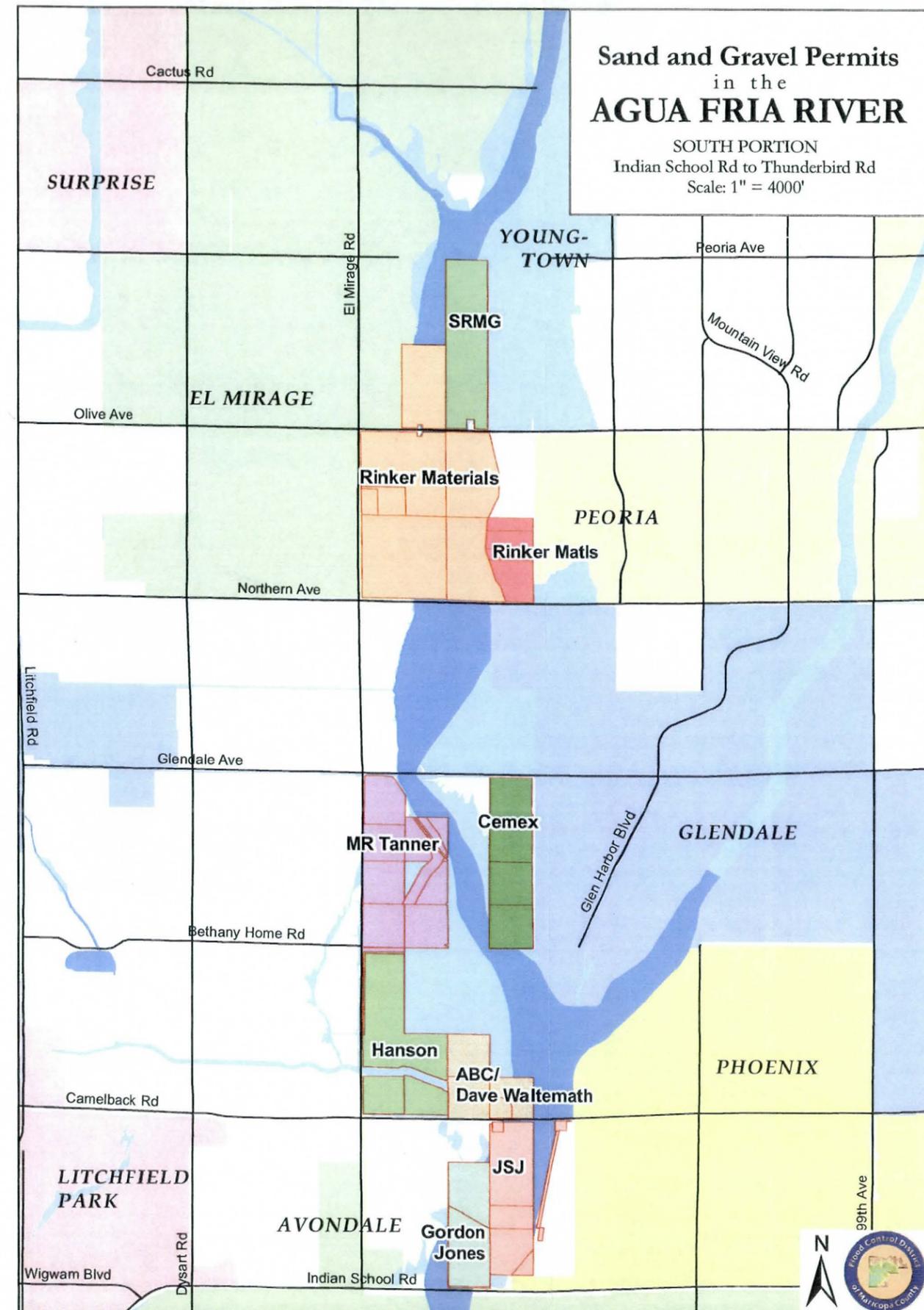
**Sand and Gravel Permits
in the
AGUA FRIA RIVER**

NORTH PORTION
Thunderbird Rd to Happy Valley Rd
Scale: 1" = 4000'



**Sand and Gravel Permits
in the
AGUA FRIA RIVER**

SOUTH PORTION
Indian School Rd to Thunderbird Rd
Scale: 1" = 4000'



May 30, 2007

CEMEX Proposal Agua Fria Channelization

Overview

CEMEX proposes to channelize between Indian School Road and Camelback Road and possibly as far as the New River confluence. CEMEX currently owns about half the river between Indian School Road and Camelback Road (unincorporated County) and about ¾ of the river between Camelback Road and the New River confluence (Phoenix and Glendale). Regional CEMEX staff seeks formal District support for their mining/channelization proposal in order to present the plan to CEMEX management for approval and funding.

Phase I – Indian School Road to Camelback Road

The first phase includes the following:

- Rectifying District concerns over CEMEX mining adjacent to the east levee
- Obtaining ½ mile of mineral rights between their holdings and Indian School Road
 - US Stone (foreclosure by US Capital from Mattingly [Alleco])
 - Clayton property
 - Lawyers Title Trust
- Rebuilding a portion of the east levee to conform with the Channelization Alternative¹
- Phased overexcavation and reclamation of the channel and terrace²
- Avoidance of interim off-site impacts through careful phasing/reclamation
- Protection of Camelback Road Bridge via grade control³
- Use of reclaimed area outside channel to fulfill park/open space requirements

Phase II – Camelback Road to New River Confluence

The second phase includes the following:

- Channelization at the Agua Fria-New River Confluence in concert with other mines [See Hanson-Tanner]
- Grade control structures at the New River Confluence and the Colter Channel Outfall
- Use of completed terrace for Camelback Ranch Regional Park
- Coordination with the baseball spring training facility for park/open space requirements

CEMEX Contact Information

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¹ Requires FCD and US Army Corps of Engineers consent

² Requires 404 Permit for placement of fill and bank protection

³ FCD offers of 404 Permit and drop/grade control if a Channelization District is formed

**City of Phoenix
Camelback Ranch Regional Park
Alternative Parcel Summary**

APN	Location	Useable Size	Approximate Dimensions (LxW)	Owner	Remarks
102-59-006	SE cor. Agua Fria & New River	3 Ac.	500' x 300' triangle Terrace	CEMEX	Contiguous w/next parcel
102-59-005B	NE cor. Camelback Rd. & Agua Fria	8 Ac.	1200' x 300' Terrace	CEMEX	Contiguous w/prev. parcel
102-58-002E	N. of Indian School Rd. behind ex. levee	30 Ac.	2500' x 300'-800' taper	Johnson Stewart (CEMEX)	Across Camelback from prev. parcel
102-58-002E	N. of Indian School Rd. inside ex. levee	14 Ac.	2100' x 300' Terrace	Johnson Stewart (CEMEX)	Same APN as above parcel: diagonally split by ex. levee
102-58-005K	S. of Camelback behind ex. levee	50 Ac.	2100' x 1000' Terrace	Johnson Stewart (CEMEX)	Contiguous w/ prev. parcel
501-63-033B	N. of Indian School Road inside ex. levee	10 Ac.	700' x 1000' ½ Terrace – ½ Recovered land	Johnson Stewart (CEMEX)	3 Ac. Terrace 7 Ac. Recovered land
501-63-003A	N. of Indian School Road behind ex. Levee	40 Ac.	1400' x 1300'	FCD (CEMEX lease)	Size/Area incl. next parcel
501-63-032K	N. of Indian School Road behind ex. levee			Johnson Stewart (CEMEX)	
102-59-008U	Agua Fria & New River @ south end of Glendale Airport	20 Ac.	1800' x 1000' "triangle" - Terrace	Glendale	Contiguous w/ next parcel
Unassessed	E. side Agua Fria adjacent to Glendale Airport	30 Ac.	1800' x 1000'-500' taper - Terrace	State Land (Tanner Lease?)	Contiguous w/prev. parcel

LaFarge Proposal Agua Fria Channelization

Overview

LaFarge owns the mineral rights to the grandfathered Sun State (Walker) pit between Rose Garden Lane and Beardsley Road (LaFarge – 265 acres). They have an application for a contiguous area extending to the Union Hills alignment (Agua Bell – 140 acres). The LaFarge pit has reserves of approximately 32 MT extending 200 feet below natural ground level. LaFarge presented two proposals: one to extract the full 32 MT from the LaFarge pit and 8 MT from the Agua Bell pit; the other to channelize approximately 2.5 miles of the Agua Fria River in accordance with the Channelization Alternative.

Deep Pit Plan

The deep pit plan mines the LaFarge pit to 200 feet from its current 40 foot depth and combines it with the Agua Bell pit. This would require the following:

- Filling the side slopes of the LaFarge pit to mitigate slope failure hazards
- Providing a drop/grade control structure at the head of the pit
- Mine the Agua Bell pit with a gently sloping exit ramp to mitigate downstream tailcut
- The resulting combined pit would capture most flood flows
- Reclamation of the LaFarge pit and drop/grade controls requires a 404 permit
- Reclamation and drop/grade controls may void the “grandfather” status

Channelization Plan

LaFarge would mine the LaFarge pit and the Agua Bell pit to a maximum depth of 40 feet and reclaim both to the depth and shape of Channelization Alternative, abandoning approximately 30 MT of mineral reserves in the process. Abandoned reserves would be replaced by mining adjacent Arizona State Land Trust to a depth of 40 feet, which would also be reclaimed to the depth and shape of the Channelization Alternative from Bell Road to Rose Garden Lane. LaFarge will not abandon existing reserves and then turn around and pay for replacement. This proposal would require the following:

- Funding approximately \$20M for ASLT mineral lease and royalties
- Finding a source to pay for mineral rights in exchange for 2.5 miles of channel
- Working with ASLT for rights to mine and construct the channel
- Reclamation, bank protection, and drop/grade controls requires a 404 Permit
- Constructing outside banks of the channel to levee standards
- Long-term maintenance of the channel and levees

Recreational Corridor Channelization District

LaFarge’s construction of 2.5 miles of the Channelization Alternative in exchange for the cost of replacement reserves translates into a public cost of \$8M/mile. This compares favorably with the \$20M/mile cost for the Phoenix Rio Salado Project. Lease and royalty payments to ASLT would be spread over the period of years it would take to complete the mining and channelization. A Recreational Corridor Channelization District’s ability to assess itself could fund this portion of the Channelization Alternative. The District has offered to prepare a Regional 404 Permit and include drop/grade controls in the CIP if land owners form a Channelization District.

Hanson-Tanner Proposal Agua Fria Channelization

Overview

Hanson Aggregates' aggregate mine and concrete plant is located north of Camelback Road between El Mirage Road the Agua Fria River. The M R Tanner Mining's pit lies between the northern portion of the Hanson facility and the riverbank and extends to Glendale Avenue. Both are in the 100-year floodplain. To protect their respective sites from flooding and lateral migration of the river, each facility needs to construct bank protection/levees along their eastern boundaries. Tanner's levee would protect the north half of the Hanson facility, making that portion of a Hanson levee redundant.

Economical Levee Construction

Disposal of return concrete (left-over uncured concrete returned from job sites) and concrete truck wash out is a necessary part of both operations. Tanner and Hanson are considering a centralized concrete disposal facility that would exploit the high strength of cured return concrete by placing it in the form of the needed bank protection/levee.

Channelization: Indian School to Glendale

ABC Sand & Rock is located east of the Hanson and Tanner operations and includes the area identified for the proposed Channelization of the Agua Fria. While useful in itself, a joint Hanson-Tanner levee along their eastern boundary would be redundant if and when the Channelization Alternative was implemented. If the levee could be coordinated with the ABC operation and adjacent CEMEX holdings north of Camelback Road [see CEMEX brief], it could be the basis for implementing the Channelization Alternative from Indian School Road to Glendale Avenue.

Hanson Aggregates Contact Information

Jim Schroeder, Area Manager – Hanson Aggregates Arizona, Inc.
Gregg Monger, Environmental Manger – Hanson Aggregates Arizona, Inc.

M R Tanner Mining Contact Information

Maury Tanner, Jr., CEO – M R Tanner Construction and M R Tanner Mining

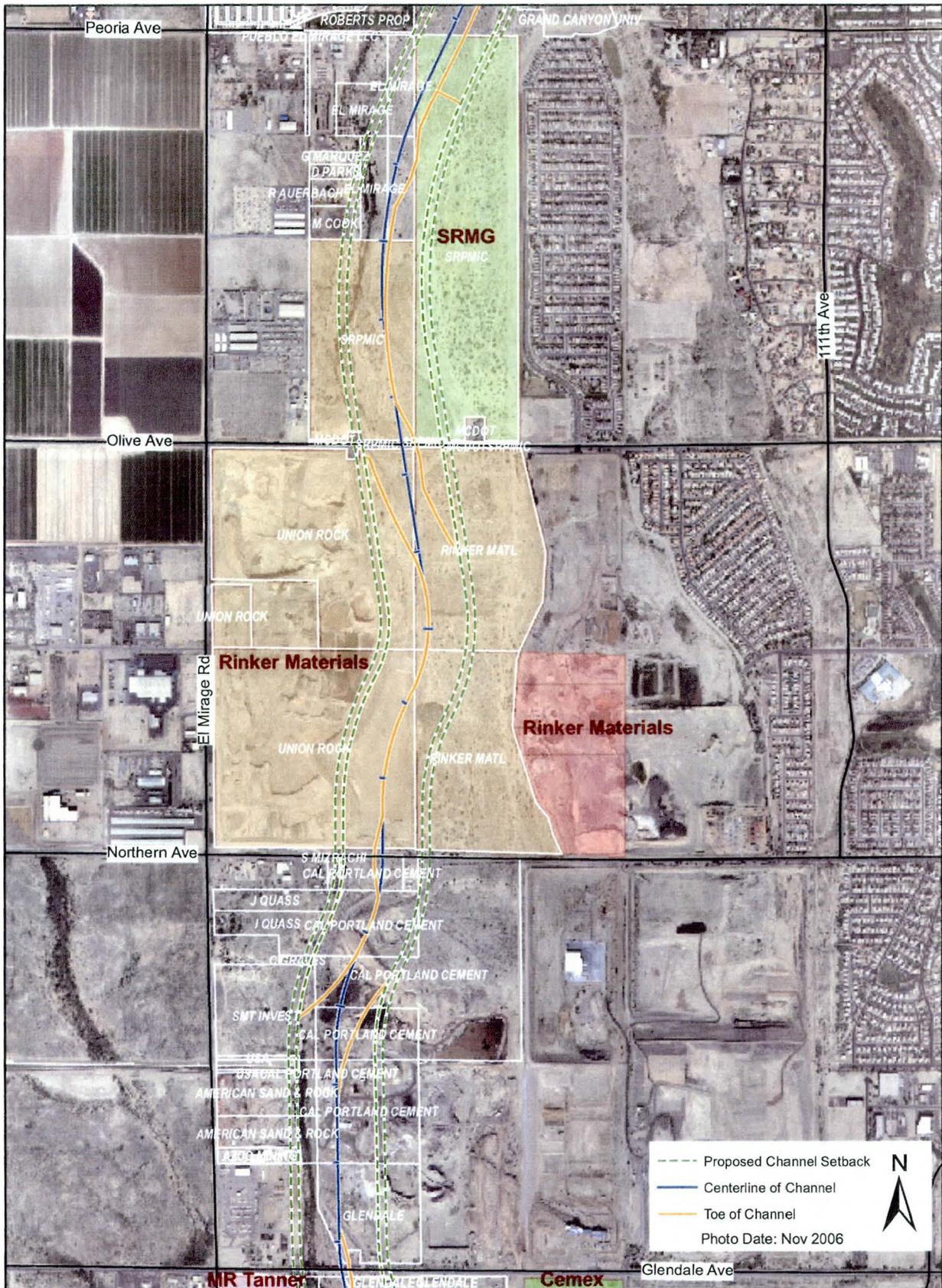
HANSON - TANNER Proposal

Camelback Rd to Glendale Ave



Agua Fria River

Glendale Ave to Peoria Ave



LaFARGE Proposal

Bell Rd to Deer Valley Rd

