Ventura County Public Works Agency

Matilija Dam Ecosystem Restoration Project
Feasibility Study

Investigations on Alternative Slurry Fine Disposal Sites

VENTURA COUNTY
PUBLIC WORKS AGENCY
WATERSHED PROTECTION DISTRICT

November, 2003

1. BACKGROUND

Several alternatives of Matilija Dam removal require the slurry of the 2 million cubic yards (1,240 acre-feet) fine sediment in the reservoir behind the dam to a place downstream of Robles Diversion, so that the uncertainty and risk of the project can be somewhat controlled and the impact to Robles Diversion be minimized.

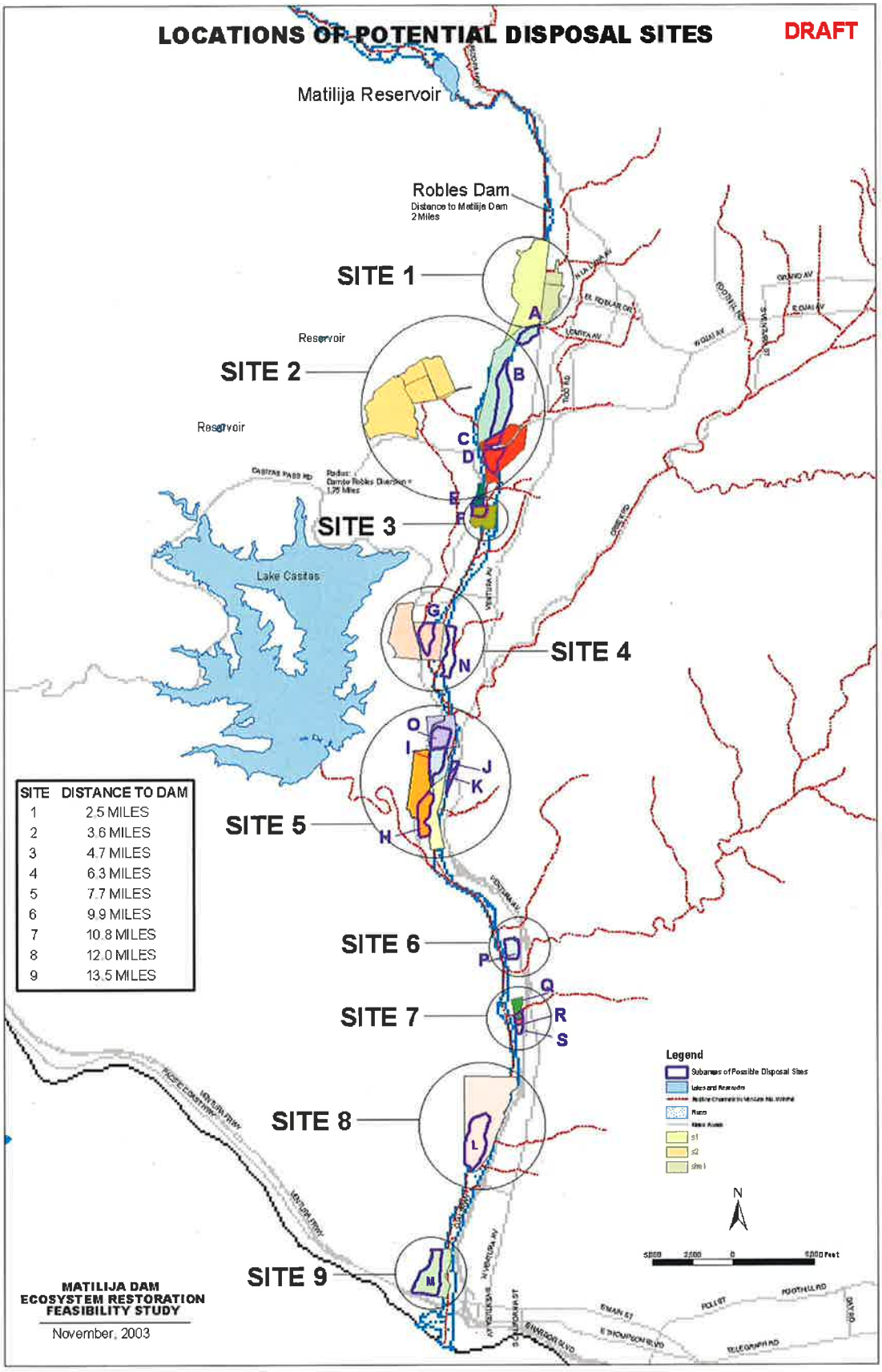
A 94-acre open space, or so called Rice Road disposal site, in the floodplain downstream of Robles Diversion, east side of the river, was evaluated as a good option from engineering point of view. However, environmental and public concerns of this site suggest that we identify some alternative sites for the fine sediment disposal.

2. METHEDOLOGY

A preliminary screening process was conducted to identify those parcels that have an area of greater than 40 acres along both sides of the Ventura River. These parcels are then grouped in sites according to their closeness (refer to the site map). Each site is evaluated independently according to the following criteria:

- Environmental impacts
- Constructability
- Cost of slurry
- Size of the area
- Height of stockpile

Preferred sites from engineering and environmental points of view are highlighted


LOCATIONS OF POTENTIAL DISPOSAL SITES
DRAFT
Matilija Reservoir
Robles Dam
Distance to Matilija Dam
2 Miles
SITE 1
SITE 2
SITE 3
SITE 4
SITE 5
SITE 6
SITE 7
SITE 8
SITE 9
Lake Casitas
A
B
C
D
E
F
G
N
O
I
J
K
H
P
Q
R
S
L
M
SITE DISTANCE TO DAM
1 2.5 MILES
2 3.6 MILES
3 4.7 MILES
4 6.3 MILES
5 7.7 MILES
6 9.9 MILES
7 10.8 MILES
8 12.0 MILES
9 13.5 MILES
Legend
MATILIJA DAM
ECOSYSTEM RESTORATION
FEASIBILITY STUDY
November, 2003

3. INVESTIGATIONS

3.1. Investigation of Disposal Site 1 Alternative A

3.1.1. Background Information

- **Location**: Below Robles Diversion, west side of the river.
- **Distance to Matilija Dam**: 2.5 miles
- **Usable Area**: Approximately 45 acres
- **Owner**: Ojai Valley Land Conservancy
- **Current Landuse**: Orchard
- **Land Value**: $1,305,000

3.1.2. Environmental Issues

(Evaluated separately)

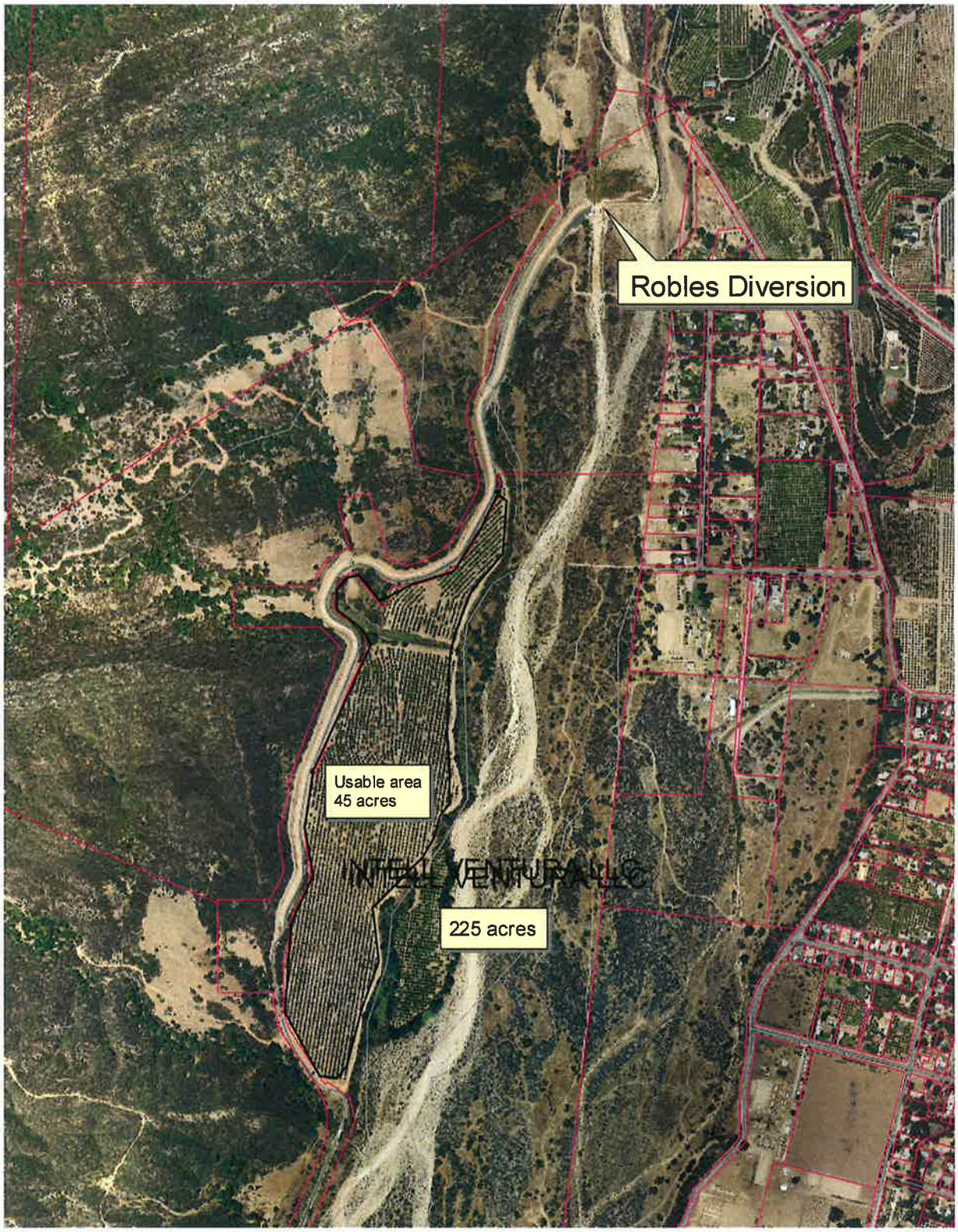
3.1.3. Overall Evaluation of the Site

If this will be used for disposal site, the average depth of stockpile will be 27 feet. This is at the same level or slightly higher than the top of existing Robles-Casitas canal bank.

The cost to slurry the sediment to this site is estimated to be **$11.95** million.

- Advantages:
  - Cost effective

- Disadvantages:
  - High stockpile



Plan View of Site 1A

3.2 Investigations of Disposal Site 1 Alternative B

3.2.1. Background Information

- **Location**: Below Robles Diversion, east side of the river.
- **Distance to Matilija Dam**: 2.5 miles
- **Usable Area**: Approximately 100 acres
- **Owner**: Ojai Valley Land Conservancy
- **Current Landuse**: Open space
- **Land Value**: $235,000

3.2.2. Environmental Issues

(Evaluated separately)

3.2.3. Overall Evaluation of the Site

If this will be used for disposal site, the average depth of stockpile will be 12 to 15 feet, ideal for slurry operation and de-watering.

The cost to slurry the sediment to this site is estimated to be **$11.95** million.

- Advantages:
  - Cost effective
  - Ideal for slurry operation
  - Within floodplain

- Disadvantages:
  - Environmental concerns
  - Public concerns

3.3 Investigations of Disposal Site 2 Alternative A

3.3.1. Background Information

- **Location**: Upstream of Baldwin Bridge, west side of Ventura River.
- **Distance to Matilija Dam**: 3.6 miles
- **Usable Area**: Approximately 40 acres
- **Owner**: Intell Ventura LLC
- **Current Landuse**: Floodplain
- **Land Value**: $85,000

3.3.2. Environmental Issues

(Evaluated separately)

3.3.3. Overall Evaluation of the Site

The floodplain of Ventura River upstream of the Baldwin Bridge is about 1000 feet to 1500 feet wide. Recent hydraulic studies indicate that encroachment into the river reducing the floodplain to 500 feet wide would not cause substantial flooding impacts.

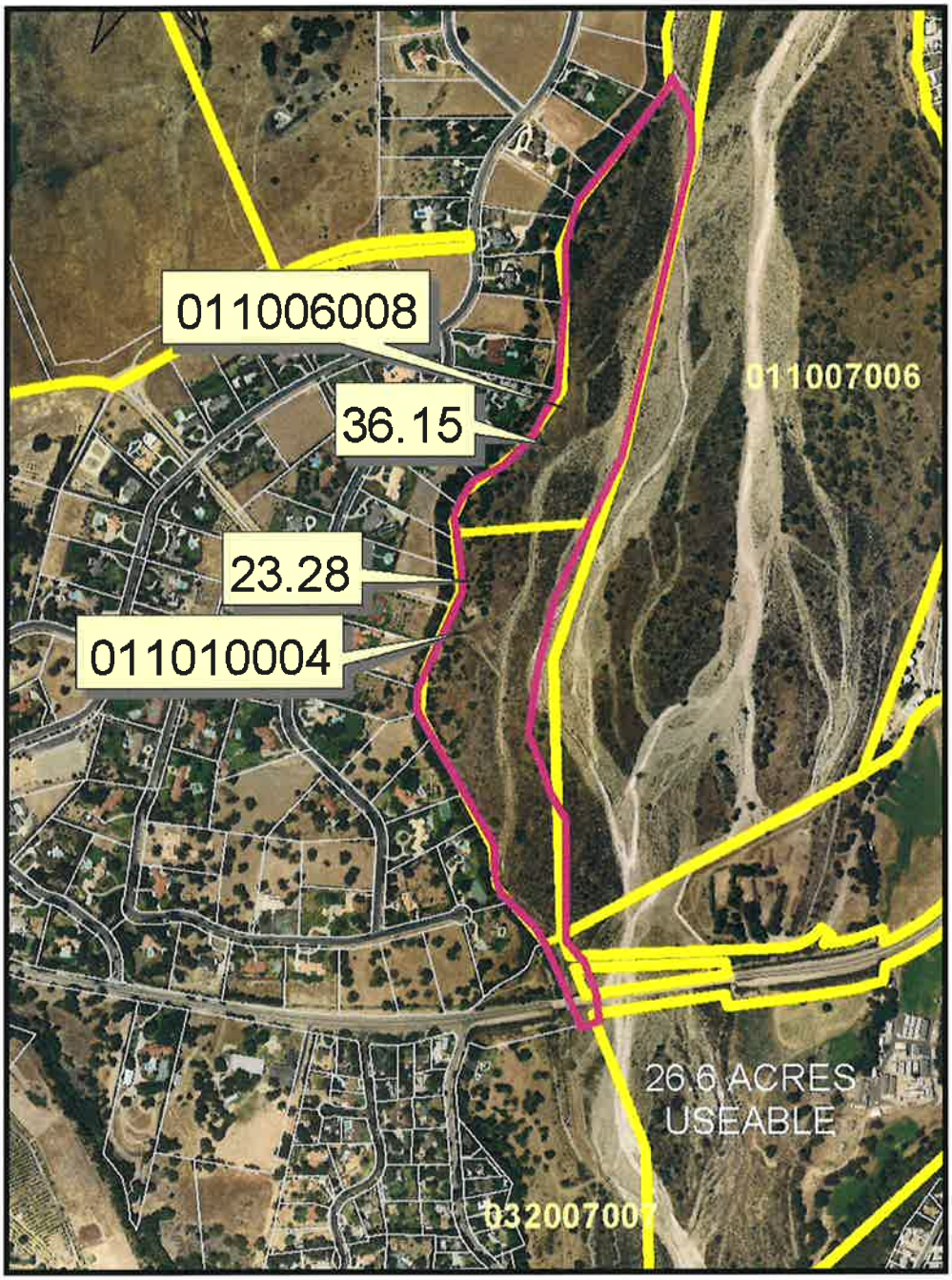
This alternative utilizes the 40-acre space at the west side of the river (see plan view). The riverbank here is a 50-foot high cliff, allowing for placement of the sediment up to 30 feet high in this small area.

The cost to slurry the sediment to this site is estimated to be **$13.45** million.

- Advantages:
  - Compact,
  - Within floodplain,
  - Cost effective

- Disadvantages:
  - High stockpile

3D-View of Disposal Sit



Plan View of Site 2A

Baldwin Bridge on Ventura River (HWY 150)

West Bank of Ventura River Upstream of Baldwin Bridge

3.4. Investigation of Disposal Site 2 Alternative B

3.4.1. Background Information

- **Location**: Upstream and downstream of Baldwin Bridge, east side of Ventura River.
- **Distance to Matilija Dam**: 3.6 miles
- **Usable Area**: Approximately 120 acres
- **Owner**: Intell Ventura LLC (upstream), Ventura County (downstream)
- **Current Landuse**: Floodplain
- **Land Value**: $170,000

3.4.2. Environmental Issues

(Evaluated separately)

3.4.3. Overall Evaluation of the Site

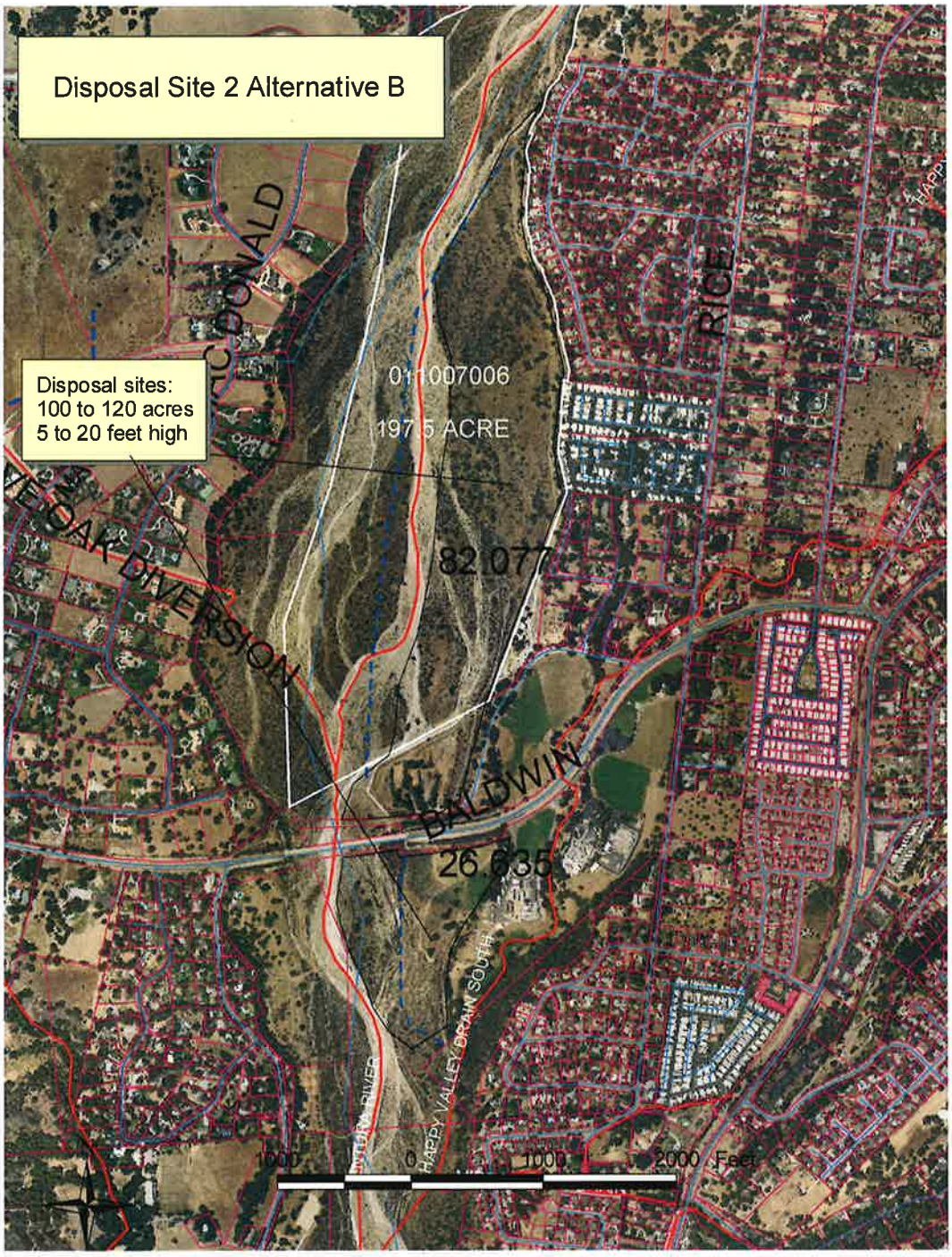
The floodplain of Ventura River upstream of the Baldwin Bridge is about 1000 feet to 1500 feet wide. Recent hydraulic studies indicate that encroachment into the river reducing the floodplain to 500 feet wide would not cause substantial flooding impacts.

This alternative utilizes the 120-acre space at the east side of the river, upstream and downstream of the bridge (see plan view). Part of the existing riverbed will be used. This may be feasible because the existing riverbed was originally, before Matilija Dam, a high ground floodplain (see 1947 topography). In riverbed areas upstream and downstream of the bridge, up to 20-foot high sediment can be stored. Some floodplain areas can only hold 5-foot high sediment.

The cost to slurry the sediment to this site is estimated to be **$13.45** million.

- Advantages:
  - Right size,
  - Within floodplain,
  - Cost effective
  - Restore pre-dam river system

- Disadvantages:
  - Close to communities



Plan View of Site 2B

Downstream of Baldwin Bridge, east side of the river

Upstream of Baldwin Bridge, east side of the river
This Riverbed will be filled with 20-foot sediment

3.5. Investigation of Disposal Site 2 Alternative C

3.5.1. Background Information

- **Location**: Upstream and downstream of Baldwin Bridge, both sides of Ventura River.
- **Distance to Matilija Dam**: 3.6 miles
- **Usable Area**: Approximately 140 acres
- **Owner**: Intell Ventura LLC (upstream), Ventura County (downstream)
- **Current Landuse**: Floodplain
- **Land Value**: $255,000

3.5.2. Environmental Issues

(Evaluated separately)

3.5.3. Overall Evaluation of the Site

The floodplain of Ventura River upstream of the Baldwin Bridge is about 1000 feet to 1500 feet wide. Recent hydraulic studies indicate that encroachment into the river reducing the floodplain to 500 feet wide would not cause substantial flooding impacts

This alternative utilizes the approximately 140-acre space at both sides of the river, upstream and downstream of the bridge (see plan view). Part of the existing riverbed will be used. This may be feasible because the existing riverbed was originally, before Matilija Dam, a high ground floodplain (see 1947 topography). The average height of stockpile will be less than 10 feet.

The cost to slurry the sediment to this site is estimated to be **$13.45** million.

- Advantages:
  - Right size,
  - Within floodplain,
  - Cost effective
  - Restore pre-dam river system

- Disadvantages:
  - Close to communities
  - A man-made channel through this section of the river

Plan View of Site 2C

3.6. Investigation of Disposal Site 2 Alternative D

3.6.1. Background Information

- **Location**: North of Baldwin Road, west side of Ventura River.
- **Distance to Matilija Dam**: 3.6 miles
- **Usable Area**: Approximately 300 acres
- **Owner**: J&G Family Trust
- **Current Landuse**: Agriculture
- **Land Value**:

3.6.2. Environmental Issues

(Evaluated separately)

3.6.3. Overall Evaluation of the Site

J&G Family Trust owns the 4 parcels north of Baldwin Road, west of Ventura River (see plan view). This site was evaluated as a potential candidate for slurry fine disposal site.

The 4 adjacent parcels have a total usable area of about 300 acres. With this area, the average height of stockpile will be about 4 feet. For half of this area, the average height of stockpile will be around 8 feet. Either way, there will not be a significant visual impact because it is a low land at the foot of mountains.

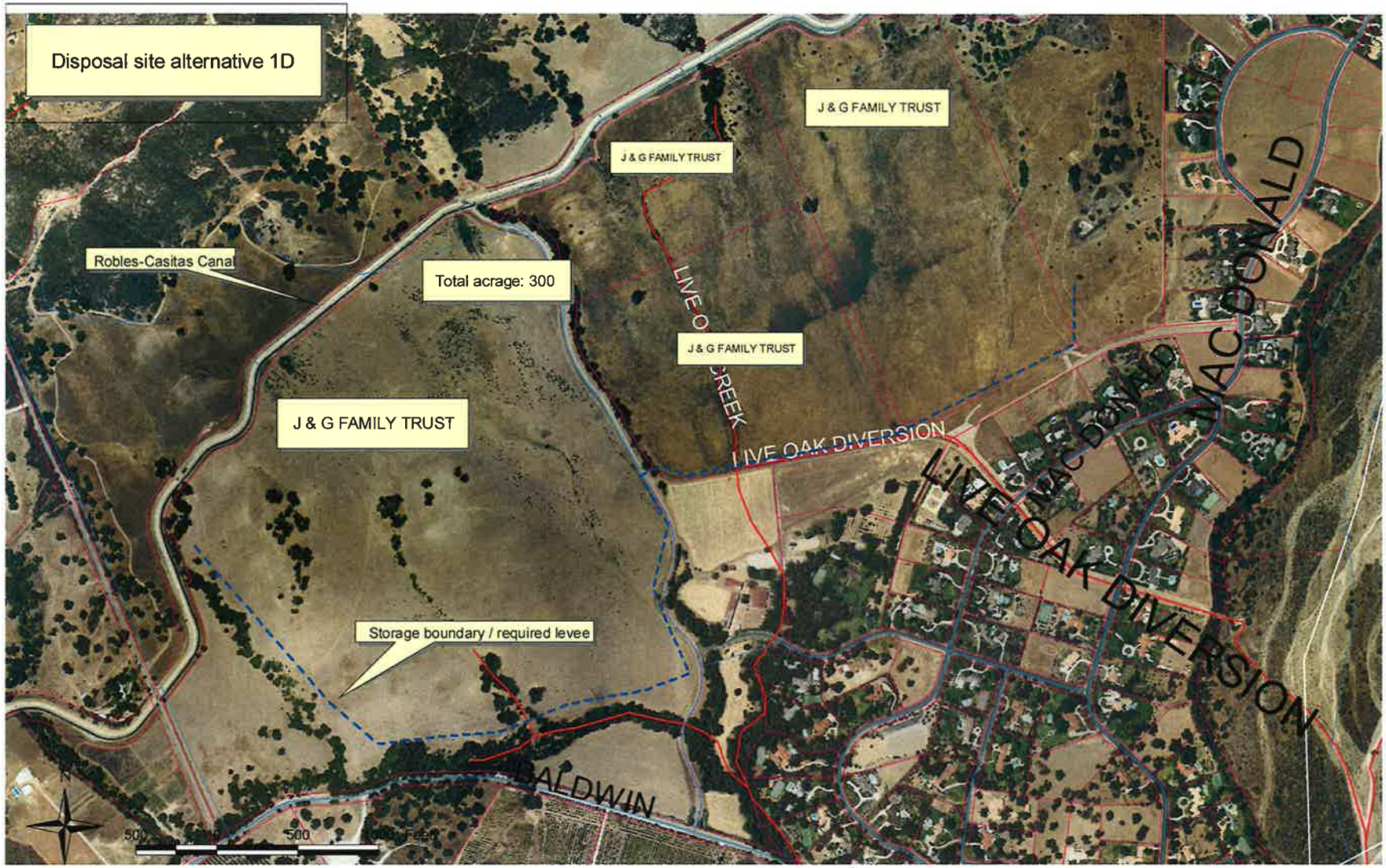
The owner recently (1year) bought this land and turned it into agriculture use (from interview of local residents), mainly to grow vegetables such as peppers. Fertile topsoil may or may not need to cover the disposed sediment if the area is to be used for agriculture post-project.

The land can be returned to the owner for agricultural use once this process is completed.

The cost to slurry the sediment to this site is estimated to be **$13.45** million.

- Advantages:
  - Right size,
  - Minimal environmental impacts
  - Cost effective
  - Improve land value

- Disadvantages:
  - Close to communities



Plan View of Site 2D

Para-view of the potential disposal site 2d

3.7. Investigation of Disposal Site 3

3.7.1. Background Information

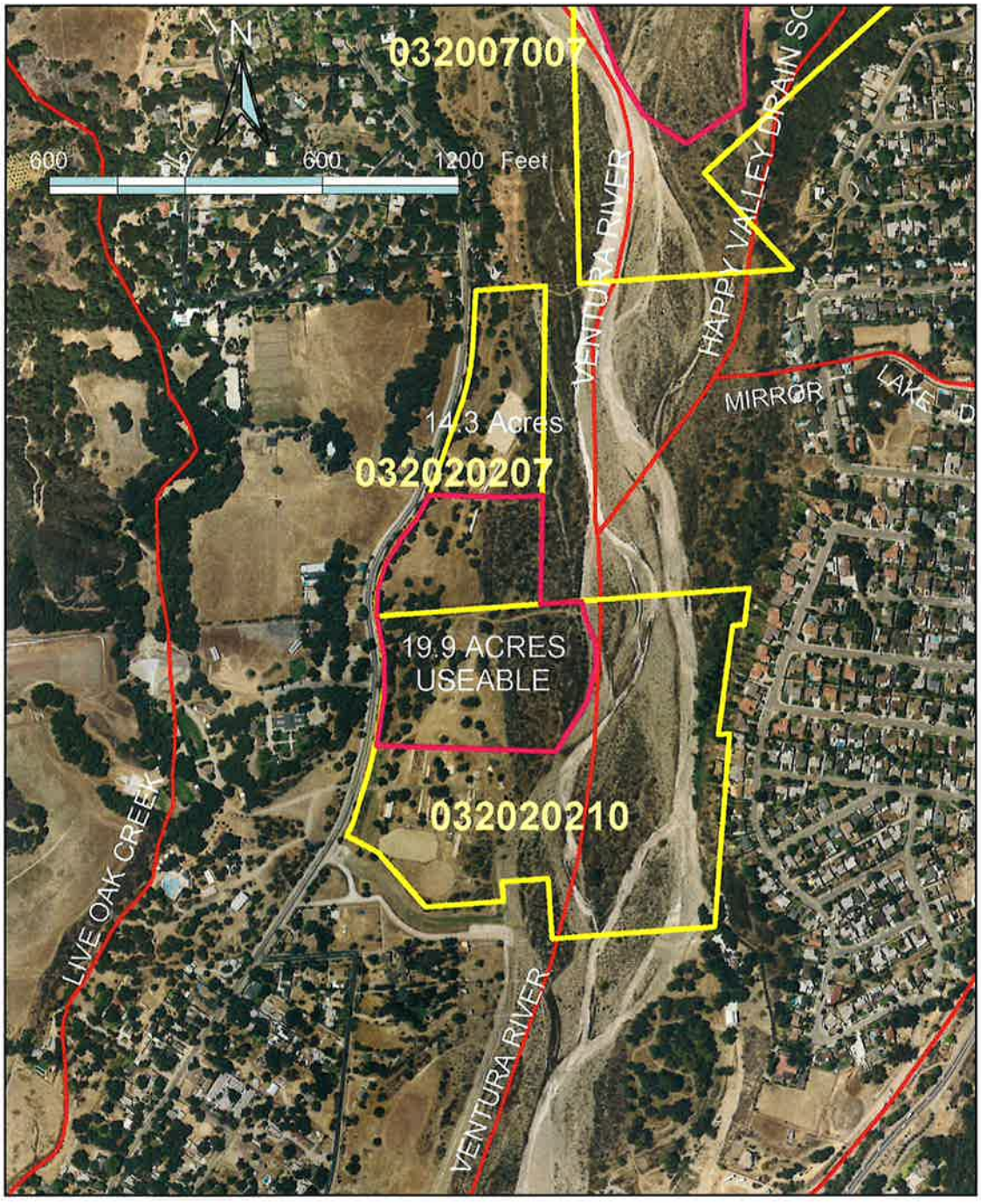
- **Location**: 3000 feet downstream of Baldwin Bridge, west side of Ventura River.
- **Distance to Matilija Dam**: 4.7 miles
- **Usable Area**: Approximately 19.9 acres
- **Owner**: NEWTON WILLIAM F-CHARLOTTE TR & FOREST HOME INC
- **Current Landuse**: Pasture and Range Land
- **Land Value**: $190,000

3.7.2. Environmental Issues

(Evaluated separately)

3.7.3. Overall Evaluation of the Site

This site is too small to be considered as a valid candidate.



Plan View of Site 3

3.8. Investigation of Disposal Site 4

3.8.1. Background Information

- **Location**: 1500 feet downstream of Santa Ana Bridge, both sides of Ventura River.
- **Distance to Matilija Dam**: 6.3 miles
- **Usable Area**: Approximately 65.2 acres
- **Owner**: DRAPEAU DAVID R TRUSTEE & EPSTEIN COLEMAN H
- **Current Landuse**: Undeveloped /Floodplain
- **Land Value**: $326,000

3.8.2. Environmental Issues

(Evaluated separately)

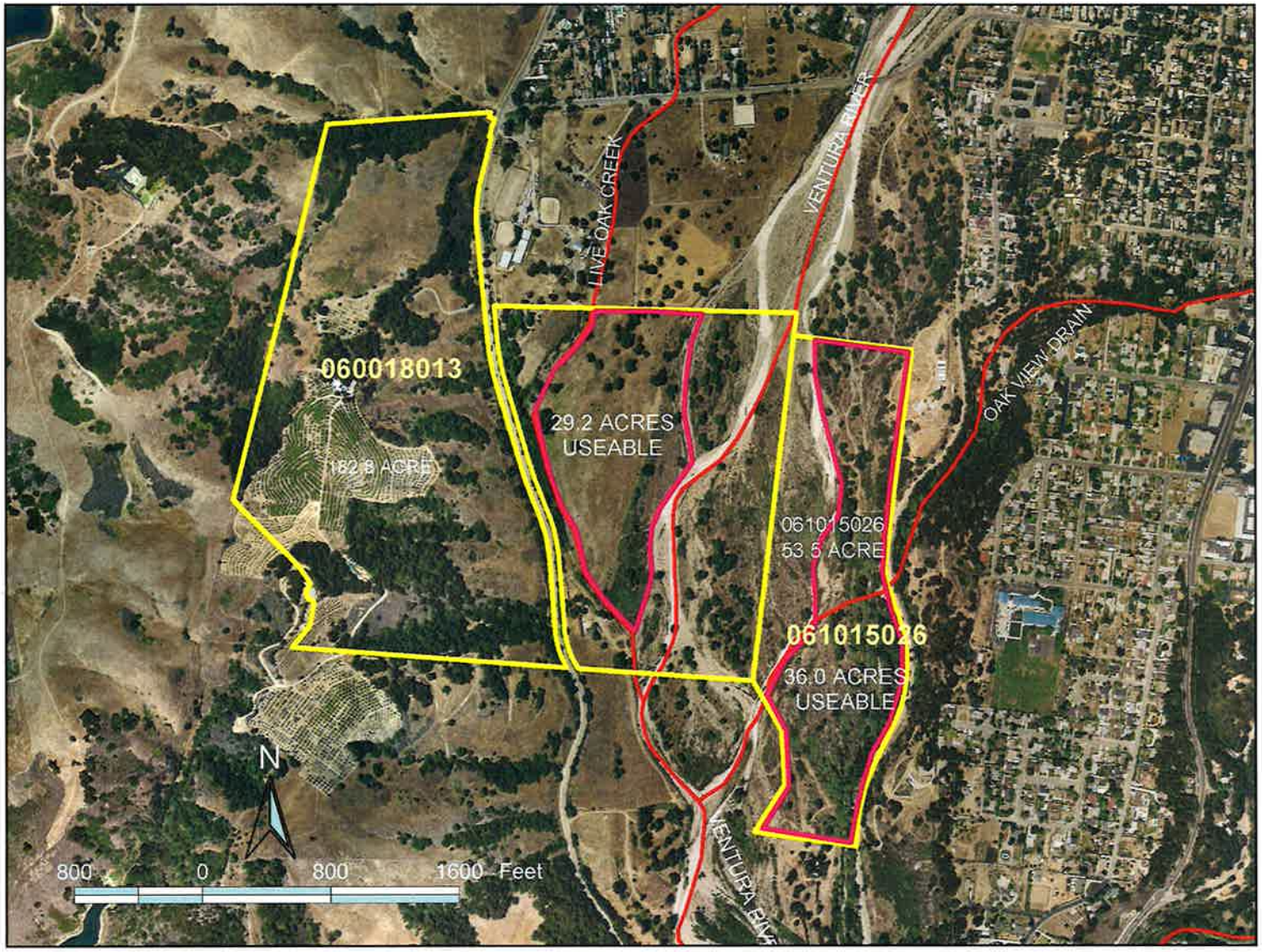
3.8.3. Overall Evaluation of the Site

There are two parts in this site. One is located between Ventura River and Live Oak Creek. To use this area, we will need to build a dike at least 25 feet high to enclose the area. The stockpile will look like an island that will have a striking visual impact. Another site is in the floodplain on east side of Ventura River. However, the vegetations are too good to be destroyed and there are dirt trails in this area.

The cost to slurry the sediment to this site is estimated to be **$17.65** million.

- Advantages:
  - Relatively cost effective

- Disadvantages:
  - Environmental concerns



Plan View of Site 4

East side of the river, floodplain area
Very good vegetations, dirt trails exist.

West side of the river, undeveloped area

3.9. Investigation of Disposal Site 5

3.9.1. Background Information

- **Location**: Immediate downstream of the confluence of Ventura River and San Antonio Creek, west side of Ventura River.
- **Distance to Matilija Dam**: 7.7 miles
- **Usable Area**: Approximately 100 acres
- **Owner**: NYE ROBERT R ET AL & CITY OF VENTURA & SCANSTYLE USA INC
- **Current Landuse**: Pasture and Range Land
- **Land Value**: $1,075,000

3.9.2. Environmental Issues

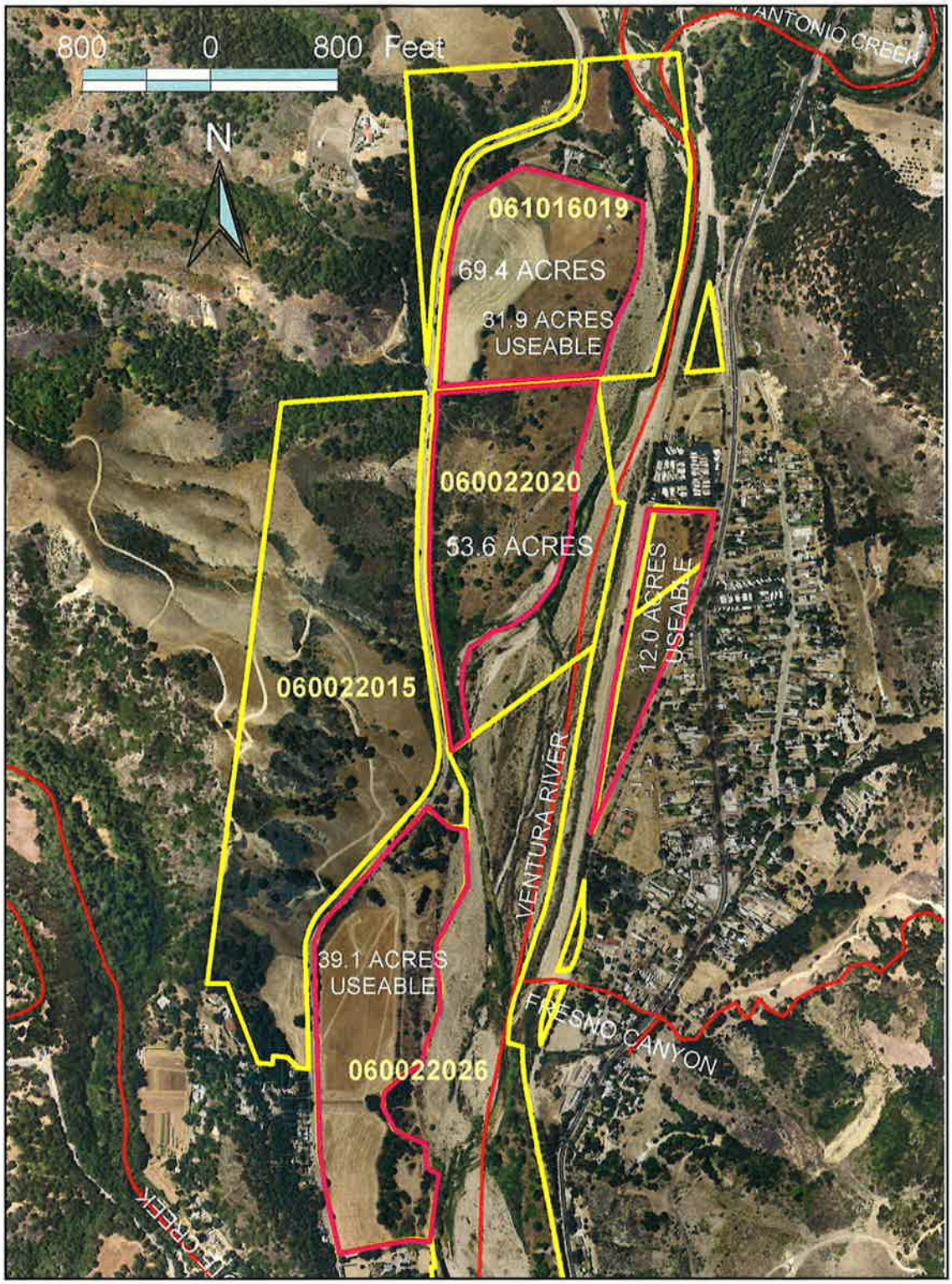
(Evaluated separately)

3.9.3. Overall Evaluation of the Site

This site is on the west side of the river, opposite to Casitas Springs Levee. With the excessive input of sediment from San Antonio Creek, Ventura River has been experiencing sediment deposition and flooding in this reach. A disposal site here will further encroach the river and worsen the situation. It is therefore, not being considered seriously at this moment.

- Advantages:
  - Right size,

- Disadvantages:
  - Encroach river
  - Costly



Plan View of Site 5

3.10. Investigation of Disposal Site 6

3.10.1. Background Information

- **Location**: South of Ventura City Water Treatment Plant, east side of the river.
- **Distance to Matilija Dam**: 9.9 miles
- **Usable Area**: Approximately 21.3 acres
- **Owner**: ROSSI TRADING CO LLC
- **Current Landuse**: Vacant Industrial Land
- **Land Value**: $868,000

3.10.2. Environmental Issues

(Evaluated separately)

3.10.3. Overall Evaluation of the Site

This site is too small to be considered a valid candidate.

Plan View of Site 6

3.11. Investigation of Disposal Site 7

3.11.1. Background Information

- **Location**: South of Petroleum Refinery Plant
- **Distance to Matilija Dam**: 10.8 miles
- **Usable Area**: Approximately 14.6 acres
- **Owner**: USA PROPERTIES CORP
- **Current Landuse**: PETROLEUM TERMINAL
- **Land Value**: $1,712,000

3.11.2. Environmental Issues

(Evaluated separately)

3.11.3. Overall Evaluation of the Site

This site is too small to be considered a valid candidate.

Plan View of Site 7

3.12. Investigation of Disposal Site 8

3.12.1. Background Information

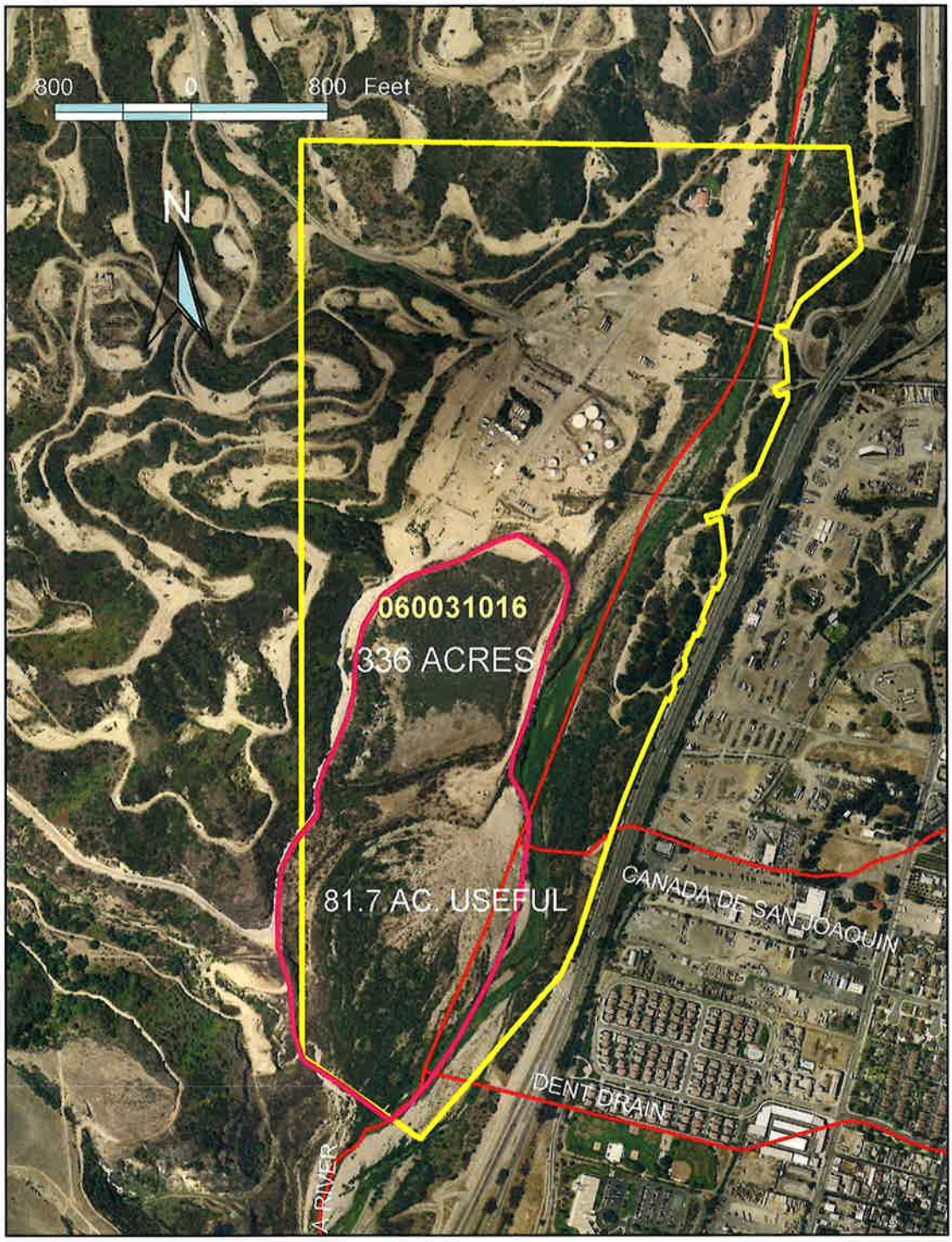
- **Location**: At the upstream beginning of Ventura Levee, west side of the river.
- **Distance to Matilija Dam**: 12.0 miles
- **Usable Area**: Approximately 81.7 acres
- **Owner**: WOOD-CLAEYSSENS FOUNDATION
- **Current Landuse**: Pasture and Range Land
- **Land Value**: $120,000

3.12.2. Environmental Issues

(Evaluated separately)

3.12.3. Overall Evaluation of the Site

Because of the far distance from the dam and therefore the high cost of slurry ($26.2 million), this site has not been serious studied at this time.



Plan View of Site 8

3.13. Investigation of Disposal Site 9

3.13.1. Background Information

- **Location**: North of the Railroad, west of Ventura River.
- **Distance to Matilija Dam**: 13.5 miles
- **Usable Area**: Approximately 71.9 acres
- **Owner**: WELTY JOHN F-VERA R
- **Current Landuse**: Agriculture
- **Land Value**: $896,000

3.13.2. Environmental Issues

(Evaluated separately)

3.13.3. Overall Evaluation of the Site

Because of the far distance from the dam and therefore the high cost of slurry ($26.2 million), this site has not been serious studied at this time.

Plan View of Site 9

4. ENVIRONMENTAL ANALYSIS

4.1 Environmental Criteria Defined:

1. Habitat. General habitat values were based on the vegetation communities. Native communities with mature trees or riparian functions were generally higher value than those dominated by non-native vegetation and had only one or two layers of canopy. A + was given to sites where little habitat impact would occur due to the fills; likewise, a – was given to sites where impacts to native habitats would be substantial. Some form of stabilization structure, such as rock toe protection, would be needed for fills along the riverbed. This was considered in the overall impacts to natural resources. All sites would require revegetation of some sort.
2. Public Compatibility. This category includes both impacts to public views and resource and existing recreation value. Sites with high visibility and existing public use would have more severe impacts from deposition of fines than those areas that are not as prominent and have no or low recreational value. A + was given to sites where public views and access would not be impacted and general objections are minimal; a – was given to sites where impacts to public issues would be substantial.
3. Construction Impacts: Sites further from the dam would have higher overall environmental impacts than those closest to the dam. Slurry lines, trucking, and other construction oriented actions have impacts to many environmental categories. A + was given to sites upstream of the Hwy 150/Baldwin Road bridge; a – was given to sites downstream.

Overall ranking of the sites sequentially was by evaluating the + and – scores for each of the environmental criteria. For example, although the habitat impacts were low on some sites downstream of Foster Park, impacts associated with the long slurry line resulted in low overall rankings.

4.2 Evaluation of Alternatives:

Site 1 Alternative A. OVLC Land Orchard (45 acres)

Habitat: The site is currently used as a citrus orchard. Little native habitat exists on the site. The site could be revegetated as native habitat if the sediments were placed here.

Public Compatibility: The site is visible from the Meiner's Oaks community and from Rice Road on the east bluff above the river. Substantial view impacts would occur over a short period of time.

Construction Impacts: Access would be from the river bottom and along CMWD existing access roads. The distance from the dam is 2.5 miles, which is a short distance compared to the other sites.

Site 1 Alternative B. OVLC Land on Upper West River Terrace at Rice Road (100 acres)

Habitat: The site is currently open space that has suffered some disturbance in the past, but revegetated with a mix of native shrubs, trees, and non-native grasslands. Moderate habitat impacts would occur if this site was used as a disposal area.

Public Compatibility: The site is visible from the Meiner's Oaks community and from Rice Road on the east bluff above the river. Substantial view impacts would occur. Further, the site is used extensively by the local residents for hiking, equestrian activities, and general river access. Loss of this access, even temporarily, is not acceptable to the residents of the area.

Construction Impacts: Access would be from the river bottom and along CMWD existing access roads. The distance from the dam is 2.5 miles, which is a short distance compared to the other sites.

Site 2 Alternative A. Upstream of Baldwin Rd. West side of river. (40 acres)

Habitat: Relatively high quality alluvial scrub occurs on this floodplain terrace. Some arundo present. Trees, both native and non-native occur on the escarpment separating the river from the neighboring residential community to the west. Fill would impact the terrace scrub and some of the trees.

Public Compatibility: The residential community east of the river is very sensitive to activities that would bring public use to the river nearby. The stockpile would be about 30 feet high, which would be highly visible from the Baldwin Rd. bridge and some residences on the eastern high bluff across the river.

Construction Impacts: The site lies 3.6 miles downstream of the dam. Access would be from the bridge and from across the river.

Site 2 Alternative B. East side of river, upstream of Burn Dump and Baldwin Rd. (120 acres)

Habitat: Relatively high quality upper floodplain terrace with some newly eroded channels. Non-native grassland with oak trees and some patches of alluvial scrub are present. Some exotics, such as scotch broom. Fill may be placed in the lower riverbed channels. Fill would remove the alluvial scrub and some of the trees. This is a large area and constitutes a large impact.

Public Compatibility: The residential community east of the river would view the stockpile, as would some on the west side, since they are at high elevations looking down into the river. The stockpile would range from 5 to 20 feet high.

Construction Impacts: The site lies 3.6 miles downstream of the dam. Access would be from the Old Baldwin Road area.

Site 2 Alternative C. Both sides of river, upstream of Baldwin Rd. (140 acres)

Habitat: Habitat described in both 1A and 1B above. This alternative would impact up to 140 acres which may be a substantial loss of habitat. Two hard toe revetments would be required to protect the sediments during moderate level flow events. This is a very large area and constitutes a very large impact.

Public Compatibility: The residential communities both west and east of the river would view the stockpile, since they are at high elevations looking down into the river. The stockpiles would be less than 10 feet high.

Construction Impacts: The site lies 3.6 miles downstream of the dam. Access would be from the Old Baldwin Road area and the west side of the Baldwin Road Bridge.

Site 2 Alternative D. J&G Family Trust land west of the Ventura River (300 acres)

Habitat: Most of the land is dry farmed, but there are some oak trees and small riparian drainages present that would be impacted by the disposal of sediments. The sediments would cover approximately 300 acres up to 8 feet deep, which would smother any existing resources. Riparian areas may be avoided with careful grading of the placed spoils. Future agricultural uses may be available.

Public Compatibility: The site has low visibility from the Hwy 150 due to the rows of trees along the road. Some neighbors in the estates between the stockpile area and the river would be disturbed by the construction traffic and noise, as well as some view issues.

Construction Impacts: The site lies 3.6 miles downstream of the dam. Access would be from the Hwy 150 or along the Casitas canal.

Site 3. Newton Trust (20 acres)

Habitat: The potential disposal area covers two habitats, oak savannah and low river terrace alluvial scrub. The oak habitat is basically disturbed grassland with oak trees and large shrubs. Alluvial scrub vegetation has been relatively stable for years and is mature. It too, has a disturbed grassland understory layer. These are moderate quality habitats.

Public Compatibility: The site has high visibility from Burnham Road and from the homes across the river on the high bluff. Neighbors in the vicinity would be disturbed by the construction traffic and noise, as well as some view issues.

Construction Impacts: The site lies 4.7 miles downstream of the dam. Access would be from Burnham Road or from the river bottom.

Site 4. Drapeau Trust (29 + 36 acres)

Habitat: The western potential disposal area (29 acres) covers primarily oak savannah and non-native grassland. The area is of relatively low value except for the patch of trees at the northern end. The eastern area is a complex of riparian and alluvial vegetation on high flood terraces. This habitat is of relatively high quality due to the complexity, although some non-native vegetation exists within it. The west area is suitable for disposal of fines with few impacts, but the east area is of high value and should not be used as a disposal site.

Public Compatibility: The sites are highly visible from Santa Ana Road. Few views would be affected from the homes on the east side of the river on the high bluff. Neighbors in the vicinity would be disturbed by the construction traffic and noise, as well as some view issues.

Construction Impacts: The site lies 6.3 miles downstream of the dam. Access would be from Burnham Road or from the river bottom.

Site 5. Nye Property, downstream of San Antonio Creek confluence (100 acres)

Habitat: Four parcel units are considered for disposal in the vicinity of the Casitas Springs levee. The western side of the river is low floodplain that has been dry farmed with patches of trees and scrub. Habitat value ranges from low to high. The eastern parcel is owned by the City of Ventura and is dominated by weeds. Except for a few large (heritage) sycamore trees, the site would be suitable as a stockpile area.

Public Compatibility: The areas are visible from Santa Ana Road, with the exception of the City property, which is visible from Hwy 33 and the Ojai Valley trail bikepath. These areas are least likely to cause substantial view impacts.

Construction Impacts: The site lies 7.7 miles downstream of the dam. Access would be from the river bottom and from Santa Ana Road.

Site 6. Rossi Vacant Land (21 acres)

Habitat: Habitat very low on this disked vacant land. Few trees present, but no other significant habitat features. Serves as low quality foraging habitat for raptors.

Public Compatibility: Visible from Hwy 33, the bikepath, but from few residences in the area. Few view impacts are expected.

Construction Impacts: Access from Hwy 33 and frontage road. It is quite a distance from the dam, nearly 10 miles.

Site 7. USA Properties (15 acres)

Habitat: Habitat very low on this disked vacant land. No trees or other significant habitat features. May serve as low quality foraging habitat for raptors.

Public Compatibility: Visible from Hwy 33, the bikepath, but from few residences in the area. Few view impacts are expected.

Construction Impacts: Access from Hwy 33 and frontage road. It is quite a distance from the dam, nearly 11 miles.

Site 8. Wood-Claeyssens Foundation (82 acres)

Habitat: Habitat on low terrace appears to be mixed scrub in a basin surrounded by a dike. The rest of the site is in the active river bottom with early successional riparian habitat. Good quality habitat in both sections.

Public Compatibility: Barely visible from Hwy 33 due to the trees along the west side of the river. Few view impacts are expected.

Construction Impacts: Access from levee and river bottom. The distance from the dam is 12 miles.

Site 9. Welty Property upstream of Main Street. (72 acres)

Habitat: The site is currently used as a nursery for bedding plants or is farmed. Little native habitat exists on the site. The site could continue to be used as a nursery even if the sediments were placed here.

Public Compatibility: The site is visible from the Main Street Bridge and the 101 Fwy. The entrance to Emma Wood State Park is across Main Street from the property. Minor view impacts would occur.

Construction Impacts: Access would be from the river bottom and Main Street. The distance from the dam is 13.5 miles, and just shy of the beach. Material would be moved a great distance.

5. SUMMARY

Summary of Alternative Disposal Sites

Site	Alternative	Land Owner	Distance to Dam	Current Landuse	Usable Area	Height of Stockpile	Environmental Issues	Construct-ability	Land Value	Cost of Slurry	Preference
			(Miles)		(Acres)	(Feet)			($ '000)	(Million USD)	
1	A	INTELL VENTURA LLC	2.5	Orchard	45	27	3	20	1,305	11.95	*
	B	OVLC	2.5	Open Space	100	15	9	10	235	11.95	
2	A	INTELL VENTURA LLC	3.6	Floodplain	40	30	2	30	85	13.45	*
	B	INTELL VENTURA LLC & VENTURA COUNTY	3.6	Floodplain	120	5 to 20	12	20	170	13.45	
	C	INTELL VENTURA LLC & VENTURA COUNTY	3.6	Floodplain	140	5 to 10	13	10	255	13.45	
	D	J & G FAMILY TRUST	3.6	Agriculture	300	4	1	30	3,000	13.45	*
3		NEWTON WILLIAM F-CHARLOTTE TR & FOREST HOME INC	4.7	Pasture and Range Land	34.2	35	11	60	190	15.25	
4		DRAPEAU DAVID R TRUSTEE & EPSTEIN COLEMAN H	6.3	Undeveloped /Floodplain	65.2	20	10	50	326	17.65	
5		NYE ROBERT R ET AL & CITY OF VENTURA & SCANSTYLE USA INC	7.7	Pasture and Range Land	100	13	5	50	1,075	19.75	
6		ROSSI TRADING CO LLC	9.9	Vacant Industrial Land	21.3	60	6	70	868	23.05	
7		USA PROPERTIES CORP	10.8	Petroleum Terminal	14.6	80	7	70	1,712	24.4	
8		WOOD-CLAEYSSENS FOUNDATION	12	Pasture and Range Land	81.7	15	4	80	120	26.2	
9		WELTY JOHN F-VERA R	13.5	Agriculture	71.9	17	8	80	896	28.45	