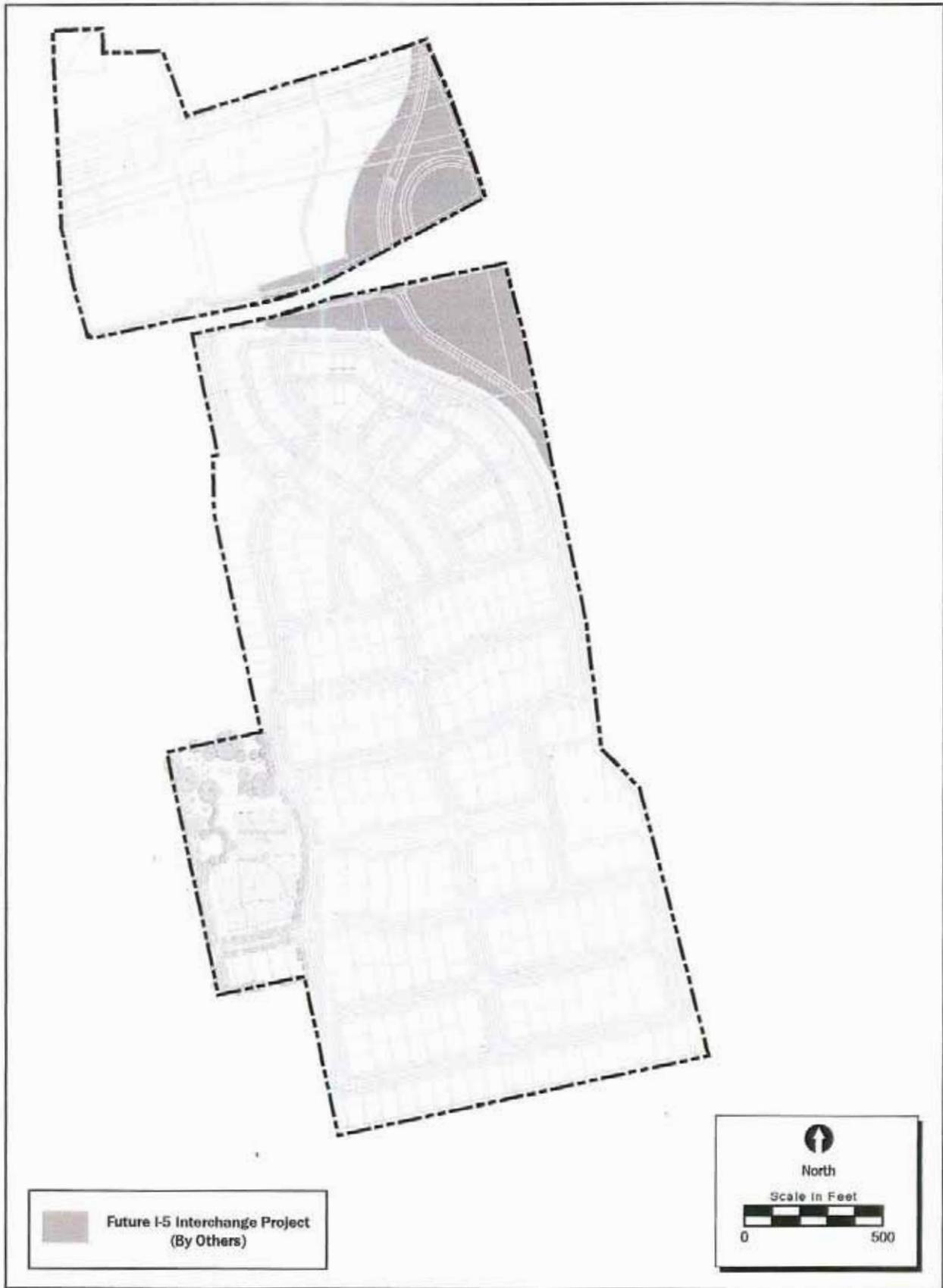
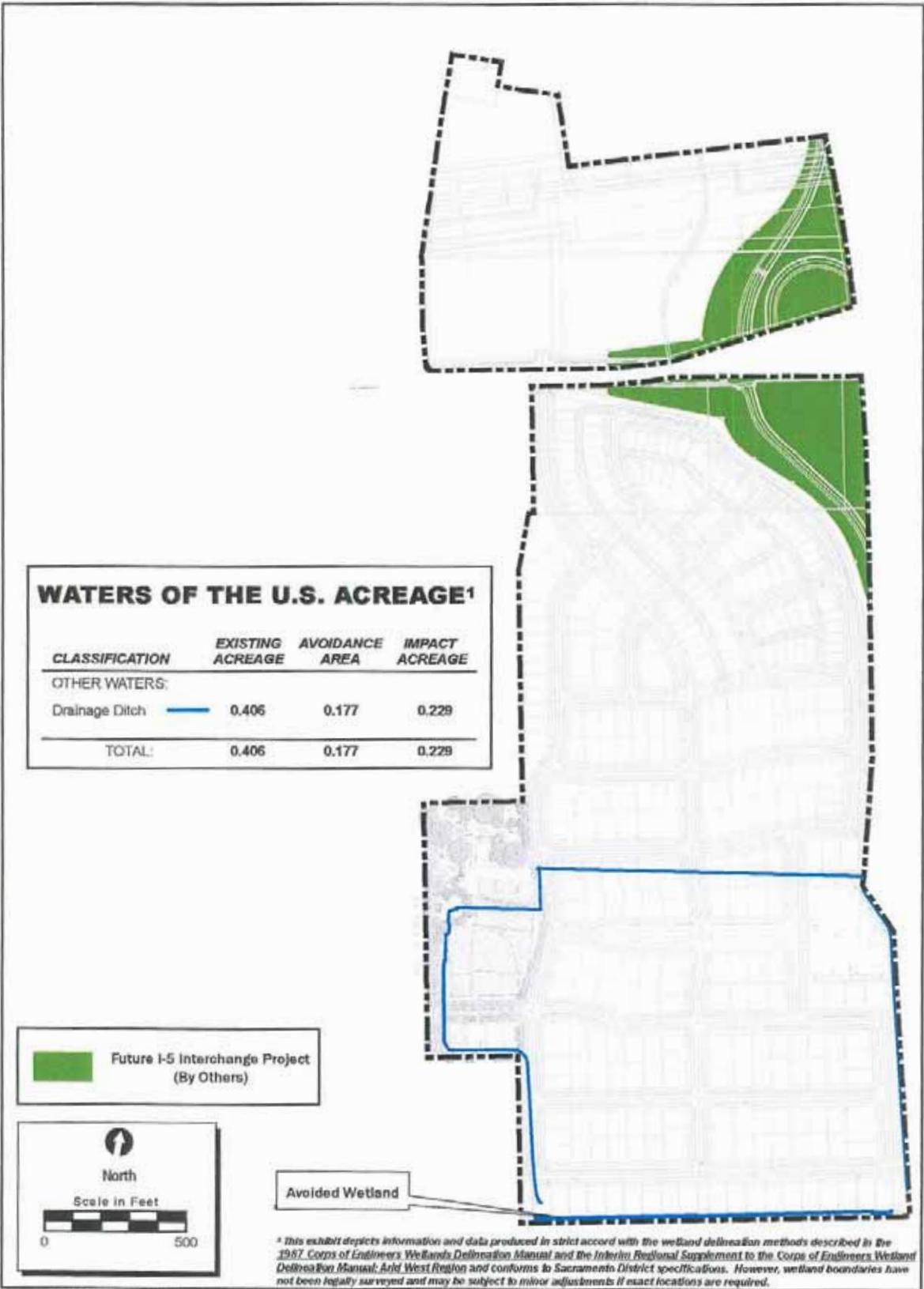


FIGURE 1. Project Site and Vicinity



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Figure 3. Site Land Use Plan
 2005-346 West Delta Shores



Location: J:\GIS_Maps\2005-346_Delta_Shore\H04_DS_WEST\Figure1_proposed_impact

Figure 4. Proposed Impact
2005-346 West Delta Shores



West Delta Shores - facing east along drainage ditch in central portion of the property. 23 March 2007.



West Delta Shores - facing east along drainage ditch in central portion of property (west end, same ditch as above). 11 June 2007.



West Delta Shores - facing east along drainage ditch at southern boundary of property. 11 June 2007.

FIGURE 5. Representative Site Photos

cause or contribute to significant degradation of waters of the U.S., 40 C.F.R. § 230.10(c). Prior to completing its review, the Corps must also evaluate the proposed project in light of the public interest. Finally, the Corps must ensure that its environmental review complies with the National Environmental Policy Act (NEPA) codified at 42 U.S. C. § 4321 *et seq.*

The 404(b)(1) guidelines express project objectives in terms of basic and overall purpose. In practical application, these terms are generally defined as presented in the following paragraphs.

SUMMARY OF PROPOSED PROJECT

Project Purpose

The purpose of the proposed project is to construct a residential neighborhood of new homes in close proximity to transportation and centers of business to serve the needs of the City of Sacramento. The Sacramento region has experienced a rapid growth in population and the proposed project is designed to meet projected and current housing needs.

Preferred Alternative Summary

The applicant is proposing to develop the project site by constructing low density, single-family housing units (240 units) and medium density townhomes (110 units) (see Figure 2). The project site is currently within the City of Sacramento and is located within a mile of a planned light rail station. The project site is one of the last major undeveloped land areas in the City of Sacramento available for substantial infill development. Initial plans for development of the Delta Shores area were prepared in the early 1980's and a planned unit development was approved but never implemented. The site is currently identified on the City of Sacramento General Plan and Community Plan for residential uses, high tech industrial, and commercial; however, the site has remained in various forms of agricultural use while substantial urban development has occurred around the site.

A number of long range infrastructure planning efforts crossing through the project site are now in the implementation stages; sewer interceptor lines and water mains are being installed, and

the extension of Cosumnes River Boulevard from Freeport Boulevard to Franklin Boulevard and I-5 Interchange improvements are now in the design review stage. In addition, levee improvements east of I-5 have recently been completed.

The proposed project represents a low level of impacts on aquatic or other sensitive resources, such as wetlands, endangered species and riparian habitat. The only waters of the U.S. on-site are drainage ditches that are used for agricultural purposes and are currently controlled by pumps and wells during the growing season (see Figure 3).

The proposed land use and circulation plan includes a neighborhood park, water detention basin, low- and medium-density house units, roads, and associated infrastructure.

Based upon the estimates provided in this document, the amount of fill requiring compensatory mitigation by this project would be approximately 0.229 acres. The applicant proposes to provide such mitigation via the purchase of appropriate credits from an agency-approved mitigation bank, as outlined in Table 2, below.

Table 2 – Existing, Impacted, Preserved and Mitigation Acreages

Type	Existing	Impacted	Mitigation (Creation 1:1)
Other Waters			
Drainage Ditch	0.406	0.229	0.229
Total:	0.406	0.229	0.229

ALTERNATIVES

Off-Site Alternative Site Selection Criteria

Site selection criteria represent the first level of evaluation for determining availability of potential alternatives to the Project site that achieve the project purpose. Several alternatives were considered and are discussed below. In an effort to identify the LEDPA, four off-site alternatives were considered, as they were found for sale at the time of completion of alternatives analysis (September 2007). In addition, these properties were generally identified from an aerial photograph using the following criteria.

1. Property was located in close enough proximity to the proposed project site (within ten miles) to meet the same or similar projected regional housing need.
2. Property was located in areas that represented undeveloped tracks of land with similar acreage to the project site.
3. Property was composed of one or more assessor parcel numbers (APNs), but did not divide a larger parcel into a smaller unit.

After this initial screening, the following additional screening criteria were applied:

1. Property must be at least 60 acres or larger.
2. Property must be for sale and/or available for purchase at the time of alternatives analysis conclusion (September 2007).
3. Property must be located in Sacramento County, but not necessarily in the City of Sacramento.

Based on these additional criteria, four locations were found in Sacramento County (Elkhorn Garden Highway, Stonebridge, Ermandarold Estates, and Grant Line) when a property search was completed on Loopnet.com.

Alternative Site Evaluation Criteria

Site evaluation criteria represent the second level of screening for determining LEDPA among sites identified in the first level of assessment. Each alternative was evaluated based on the following criteria:

1. Project Purpose: The alternative site must be in close proximity to the City of Sacramento, which is currently experiencing high population growth. The alternative site must be zoned for low to medium density residential (greater than rural residential), not represent leapfrog development by having proposed or current developments along at least one border of the proposed site.

2. Logistics: Utilities must be readily available or available at a reasonable cost. The alternative must also maintain acceptable traffic flow and emergency vehicle access within the proposed subdivision.
3. Availability: Alternative sites must be available for development within a reasonable time frame. Based on the entitlement process, a site would need to be available for development in approximately 2 to 3 years. The applicant considers an alternative site available if it is likely to be available for purchase, utilization, or management under commercially acceptable terms.
4. Environmental: Alternatives were evaluated to determine the level of impacts on aquatic or other sensitive resources, such as wetlands and endangered species, and compared to the proposed project site. Alternative sites were also evaluated to determine the extent of riparian habitat on each site. In order to determine the LEDPA, wetland and riparian impacts were estimated on alternative sites by photo-aerial interpretation. The title of "Possible Jurisdictional Wetlands" or "Possible Riparian Area" was assigned to these features in the absence of verified wetland delineations or ground truthing of photo-aerial interpretation.
5. Cost: Alternative sites must have development costs that are the same as or less than the currently proposed Project site.

OFF-SITE ALTERNATIVES – FOR SALE

Summary of Selected Off-Site Alternatives

With the above outlined site selection criteria in mind the following sites were chosen for further analysis.

Off-Site Alternatives for sale at the time of alternatives analysis completion (Figure 5. *West Delta Shores Off-Site Alternatives*):

- Alternative 1 – Elkhorn Garden Highway: This ±67-acre lot is located approximately seventeen miles north of the proposed project site in Sacramento, California (Attachment A – *Elkhorn Garden Highway Alternative*).

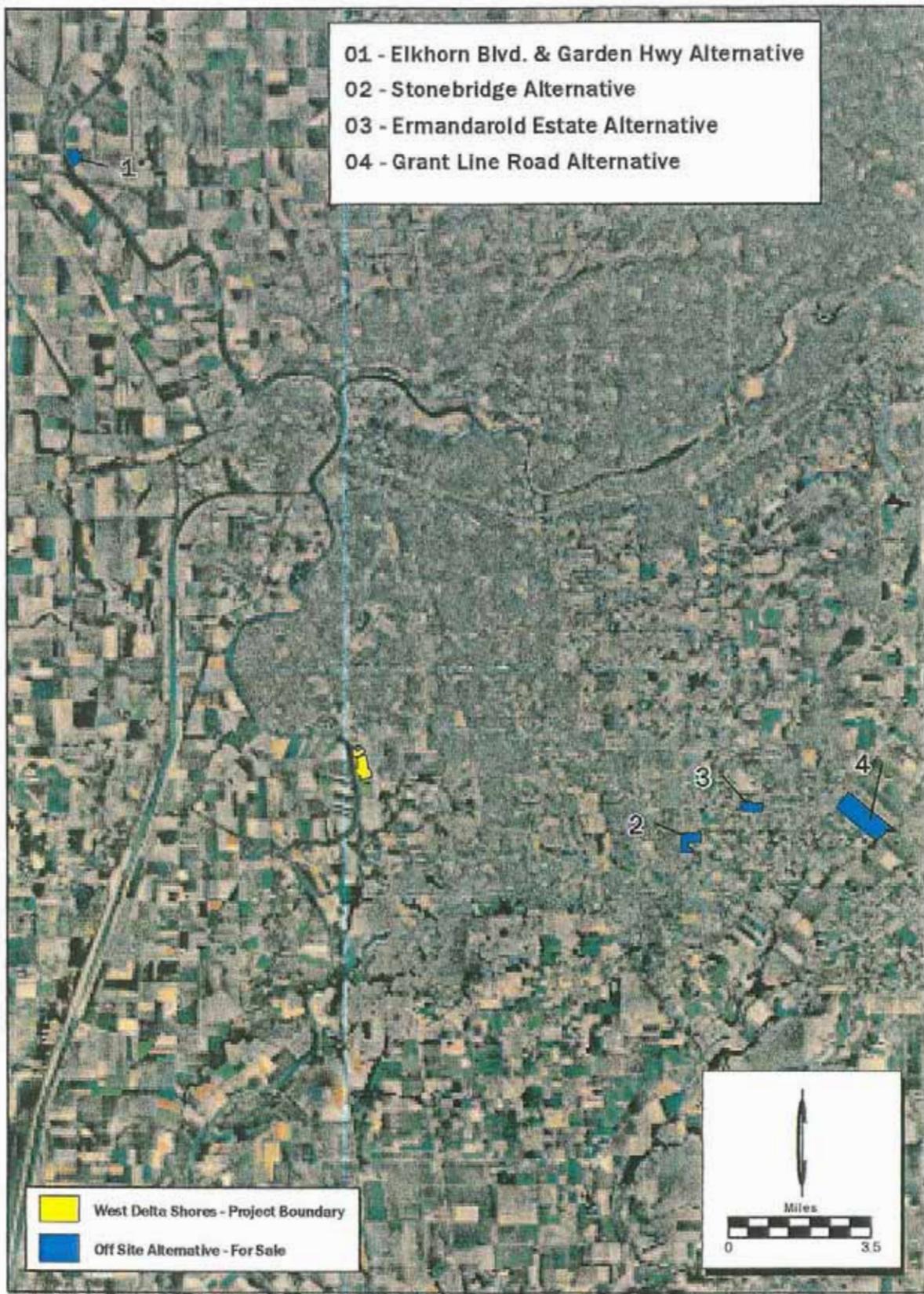


Figure 5. West Delta Shores Off Site Alternatives
 2005-346 West Delta Shores

- Alternative 2 – Stonebridge: This ±112-acre lot is located approximately eight miles east of the proposed project site in Elk Grove, California. (Attachment B – *Stonebridge Alternative*).
- Alternative 3 – Ermandarold Estates: This ±73-acre lot is located approximately nine miles east of the proposed project site in Elk Grove, California (Attachment C – *Ermandarold Estates Alternative*).
- Alternative 4 – Grant Line: This ±414-acre lot is located approximately fifteen miles east of the proposed project site in Elk Grove, California (Attachment D – *Grant Line Alternative*).

Off-Site Project Alternative 1 (Elkhorn Garden Highway)

This ±67-acre property in Elk Grove, California is composed of five parcels are currently zoned AG-20 (General Agriculture) (see Attachment A). According to the sales flyer the site currently is planted in row crop. This property meets logistics, environmental, and cost evaluation criteria; however, project purpose and availability criteria are not met by this site.

The property has access to power, water, and telephone service, but does not likely have access to municipal sewer system necessary to support the proposed project. The estimated waters of the U.S. acreage of 0.7 acres are comprised primarily of drainage ditches. Further more the ditches are along the western boarder of the property, making avoidance possible. Based on this aerial interpretation of wetlands there appears to be fewer environmental resources on this property compared to the West Delta Shores property; however, ground truthing of this information would likely show this property to contain a greater amount of environmental resources. The sales flyer states that the property may "have potential mitigation land value as defined in the Natomas Basin Habitat Conservation Plan." The primary focus of the Natomas Basin Habitat Conservation Plan was to protect and restore wetland and upland habitat values to benefit the threatened giant garter snake and Swainson's hawk.

This site also fails to meet the project purpose as the alternative is zoned as AG-20, which allows for a residential density of no greater than one resident per twenty acres. The site is also surrounded by agricultural land uses, and would represent leapfrog development.

It should be noted that while this property is for sale, the availability is limited. A portion of the land has an active land lease for a communication tower. While this can coexist with agriculture, it is not conducive to residual development.

Off-Site Project Alternative 2 (Stonebridge)

The Stonebridge property is a ±112-acre single-parcel site currently zone AG-80 (General Agriculture), but is being converted into 21 two-acre lots and 8 five-acre lots zoned AR-2/AR-5 (Agricultural - Residential) and is in the entitlement process with the City of Elk Grove (see Attachment B). This alternative meets logistics, availability, and cost evaluation criteria, but does not meet project purpose or environmental criteria.

The Stonebridge property fails to meet the project purpose as it represents a substantial loss in housing. The proposed project would allow for 350 medium- to low-density residential dwellings. This alternative would allow for only 29 residential dwellings due to the zoning and parcel size, which will not serve the needs of the growing City of Sacramento.

This site has approximately 7.2 acres of waters of the U.S. on-site. The acreage is largely comprised of seasonal wetlands, seasonal wetland swales, and a feature described by the flyer as a "year-around creek which meanders through the property". These features are confined to the western portion of the site. The only jurisdictional feature on the eastern portion is a drainage ditch. However, confining development to only the eastern half of the site would result in a financially unviable project.

Off-Site Project Alternative 3 (Ermandarold Estates)

The ±73-acre Ermandarold Estates is an old dairy farm site located in Elk Grove, California. According to the sales flyer, the five parcels are currently zoned AR-2, but are being converted into 35 two-acre lots (see Attachment C). The flyer goes on to state "the Corps of Engineers has signed off on the project and [the owner is] just awaiting the City's final determination of the Swainson Hawk mitigation fee." The property meets logistics, availability, and cost evaluation criteria, but fails to meet the project purpose and environmental criteria.

This alternative fails to meet the project purpose, as it represents a substantial loss in housing. This alternative would allow for only 35 residential dwellings due to the zoning and parcel size, which will not serve the needs of the growing City of Sacramento.

Based on aerial interpretation the site appears to have a creek, two ponds, drainage ditches, and several seasonal wetlands and seasonal wetland swales. There are an estimated total of 3.5 acres of potential waters of the U.S. on the site. The property is described in the sales flyer as containing a creek and many oak trees meandering through it. The creek and associated oak trees would be difficult to preserve, as they are on a large portion of the property. Preserving the drainage ditches would cause similar problems with traffic flow that were discussed with the on-site alternatives. Based on aerial interpretation there appears to be a greater number and variety of wetland features on this property compared to the proposed property. Potential impacts to these wetland features and riparian oak trees, this alternative fails to meet environmental criteria

Off-Site Project Alternative 4 (Grant Line)

The final site considered by these analyses was the approximately 414-acre Grant Line site located approximately fifteen miles east of the proposed project site in Elk Grove (see Attachment D). The location would allow this alternative to serve the needs of Sacramento, and does not represent leapfrog development. According to the sales flyer, the site is currently zoned for General Agricultural (AG 80). The property meets availability and logistics evaluation criteria, but fails to meet project purpose and environmental criteria.

This alternative site is zoned for general agriculture (AG 80) and can therefore only be divided into 80-acre home sites, which would not meet the project purpose of providing low to medium density residential housing for the City of Sacramento. Based on aerial interpretation the site has a significant amount of potential waters of the U.S., estimated at a total of 71.44 acres. Developing this property may necessitate impacting these features or a number of these features. This would be more environmentally damaging than the proposed project site.

ON-SITE ALTERNATIVES

Summary of Selected On-Site Alternatives

- Alternative 5: Flowing Feature Complete Preserve (Attachment E – *Flowing Feature Complete Preserve*).
- Alternative 6: Flowing Feature Preserve (Attachment F – *Flowing Feature Preserve*).
- Alternative 7: Wetland Feature Preserve (Attachment G – *Wetland Feature Preserve*).

Three on-site alternatives were considered for the Project. Each alternative is discussed below. Anticipated impacts on waters of the U.S. associated with each alternative are summarized in Table 3.

Table 3 – On-Site Alternatives Impacts Summary

	<u>Impacted Acreage</u>	<u>Preserved Acreage</u>
<i>Proposed Project</i>		
Drainage Ditch	0.229	0
<i>Alternative 5</i>		
Drainage Ditch	0	0.406
<i>Alternative 6</i>		
Drainage Ditch	0.400	0.006
<i>Alternative 7</i>		
Drainage Ditch	0.400	0.006

On-Site Project Alternative 5 (Flowing Feature Complete Preserve)

This Alternative proposed that a 17.96-acre preserve area containing a 100-foot buffer surrounding the drainage ditch be preserved (see Alternative E). A 100-foot buffer was chosen, as this is the distance generally accepted by the Corps to minimize impacts to a flowing feature not considered habitat for sensitive species. This option was not determined to be LEDPA because it failed to meet logistics and cost criteria.

By creating a preserve to protect the total 0.406 acres of waters of the U.S on-site, a large portion of the site, approximately half, is rendered unavailable for development for logistic reasons. The preserve encloses a large section of land that has no waters of the U.S. or other

environmental concerns. Roadway access to these units in the southern portion of the project area is prohibited by this alternative, thereby eliminating any development potential of this area as any span bridge structure would be well beyond the ability of the reduced project size to support.

The loss of building space includes areas that are designed for a neighborhood park, water quality detention basin, and approximately 170 low-density housing lots. Reducing the project build-out of residential lots by approximately half would significantly increase development costs and completely undermine project viability. Unlike the proposed alternative, this alternative is not practicable for logistical and cost criteria.

On-Site Project Alternative 6 (Flowing Feature Preserve)

The second alternative considered preserving 17.57 acres with a 100 foot buffer surrounding the waters of the U.S., but allowing a section of water to be impacted for the purpose of constructing a road for access to the southern portion of the project area (see Alternative F). Of the +/-120-acre project site, 17.57 acres would be placed in preserve, protecting 0.400 acres of the total 0.406 acres of water of the U.S. present on-site. This alternative was eliminated as the LEDPA, as it failed to meet the logistics and environmental criteria.

This alternative created the major logistic problem of impaired traffic flow. Roadway access from all but one street would be entirely restricted by this alternative. Specifically, the eastern and western through roadways would be cut off, access to Freeport Boulevard would be cut off, and the road that encircles the southern side of the project would not be built on the eastern and western sides. These impairments would cause major restrictions in traffic flow for the neighborhood and present significant obstacles to provide even the minimum level of access for life safety personnel in case of a fire or other life-threatening emergency. Redesigning the roadways around this alternative would also result in substantial loss of housing at the expense of roadway development.

The alternative would also deter or prevent the project from meeting the storm water detention conditions mandated by the City of Sacramento, where runoff from residential lots would be

directed through the storm drain system to a detention basin located on the eastern side of the project. This prevents storm water pollution from entering the Sacramento River, which is to the west of the project site. This alternative proposes a preserve that is located where the detention basin, as well as a neighborhood park, are designed to be constructed. The neighborhood park is required for consistency with the Quimby Act, as well as increasing the quality of life for residents by providing additional "green" relief and gathering areas for informal neighborhood socializing. Redesigning the lots around this alternative would result in substantial loss of housing at the expense of the detention basin and park construction. Compared to the proposed site plan, the detention basin and neighborhood park would be impaired, and traffic flow within the residential area would be substantially disrupted, making this alternative impractical.

On-Site Project Alternative 7 (Wetland Feature Preserve)

This Alternative proposed preserving 10.09 acres with a 50-foot buffer surrounding the drainage ditch, while allowing a section of water to be impacted for the purpose of constructing a road to provide access to the southern portion of the project (see Attachment G). A 50-foot buffer was chosen, as this is the distance generally accepted by the Corps to minimize impacts to a non-flowing wetland feature not considered habitat for sensitive species. Of the +/-120-acre project site, 10.09 acres would be placed in preserve, protecting 0.400 acres of water of the U.S. present on-site. This option was not determined to be LEDPA because it failed to meet logistics criteria.

This alternative would also lead to a substantial disruption of traffic and life safety concerns outlined in alternative 6. Specifically there would be only one through street and no direct access to Freeport Boulevard with this alternative. The proposed project plan allows for acceptable traffic flow by constructing four through streets, one of them leading directly to Freeport Boulevard, as well as internal streets. The impaired traffic flow is not practicable and unjustifiable for the preservation of agricultural drainage ditches that have been altered and are currently controlled by pumps and wells throughout the project area. The alternative was further dismissed because it was considered unlikely that the Corps would consider the drainage ditches non-flowing wetland features. The ditches are currently used to transport water for agricultural purposes.

NO-ACTION ALTERNATIVE

Under the "No-Action" Alternative, no changes to the area would be undertaken, and the situation would remain "as is". This alternative is inconsistent with proposed project purpose of providing infrastructure and neighborhood development for the growing City of Sacramento and is considered undesirable. Although impacts at the project site would be avoided, no improvement to the City of Sacramento would be realized.

CONCLUSION

Pursuant to the Guidelines, this analysis also takes into consideration the other factors listed in 40 C.F.R. § 230.10 (b) and (c) in identifying the least environmentally damaging practicable alternative. In identifying the proposed project as the LEDPA, it was determined that the proposed project is not likely to result in violations on any applicable toxic effluent standard or prohibition, jeopardize the continued existence of any endangered or threatened species (or destroy or adversely modify critical habitat of such species), cause or contribute to violations of any applicable state water quality standard, or cause or contribute to any degradation of waters of the U.S.

A review of several alternatives was performed in an effort to determine if the proposed project (the preferred alternative) constituted the LEDPA (Table 4 – *Alternatives Analysis Summary*). This analysis was founded upon a legitimate and reasonably defined overall project purpose, and considered a meaningful number of alternatives to the project. The three on-site alternatives failed to meet logistics evaluation criteria. The proposed project represents an approach that allows the subdivision to meet the project purpose, logistics, availability, environmental, and cost evaluation criteria.

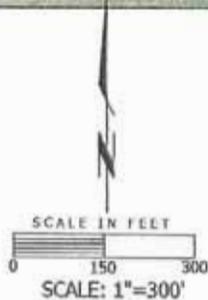
Many off-site alternatives were also considered, including four sites on the market at the time of completion of this analysis. Available sites within and around Sacramento are limited. Much of the developable land has been developed, and the parcels that are left contain unique environmental resources.

Off-site alternatives for sale at the time of completion of this analysis were severely limited. Only one site was located in the City of Sacramento that represented undeveloped land with 60-acres or more. The other sites were located in Elk Grove, which is in the Sacramento County. These sites would not serve the City of Sacramento in satisfying its Regional Housing Needs Plan (RHNP). All four of these sites failed to meet one or more evaluation criteria including project purpose and environmental criteria.

As summarized in Table 4 below, based on these analyses the proposed project was determined to be LEDPA.

Table 4 – Alternatives Analysis Summary

Alternative	Acres	Estimated Impacts to Waters of the U.S	LEDPA	Criteria not Met by Alternative
Proposed Site	120	0.229	Yes	N/A
Off-Site Alternative 1	±67.2	±0.7	No	Project Purpose & Availability: Incompatible Zoning; Active land lease
Off-Site Alternative 2	±112	±7.2	No	Project Purpose & Environmental: Substantial loss in housing; Impacts to creek and associated wetlands.
Off-Site Alternative 3	±72.6	±3.5	No	Project Purpose & Environmental: Substantial loss in housing; Impacts to water of the U.S.
Off-Site Alternative 4	±414	±71	No	Project Purpose & Environmental: Incompatible Zoning; Impacts to wetland features.
On-Site Alternative 5	120	0	No	Logistics and Cost: Approximately half of site is inaccessible and Reduction in housing by approximately 170 units.
On-Site Alternative 6	120	0.006	No	Logistics and Environmental: Unacceptable disruptions in traffic flow and interfere with storm water detention.
On-Site Alternative 7	120	0.006	No	Logistics: Unacceptable disruptions in traffic flow
No Action Alternative			No	Project Purpose: Failure to meet project goals



Property Boundary		67.2
Potential Jurisdictional Wetlands		0.7

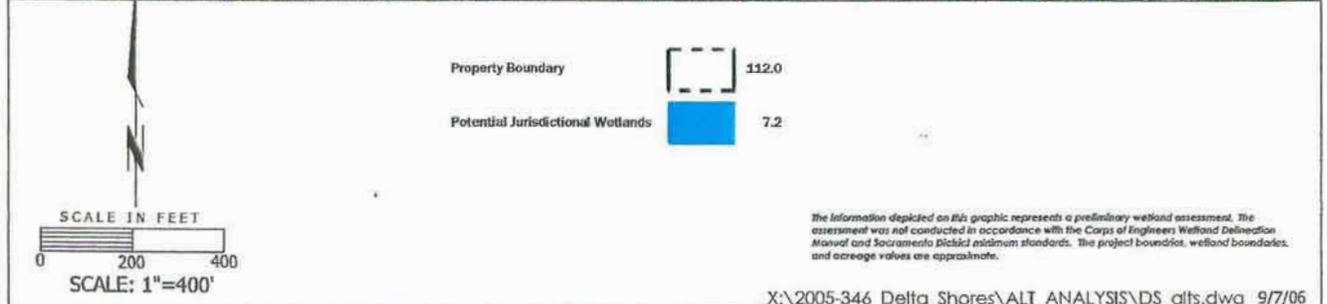
The information depicted on this graphic represents a preliminary wetland assessment. The assessment was not conducted in accordance with the Corps of Engineers Wetland Delineation Manual and does not meet federal standards. The project boundaries, wetland boundaries, and acreage values are approximate.

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Elkhorn Garden Highway Alternative

2005-346 Delta Shores

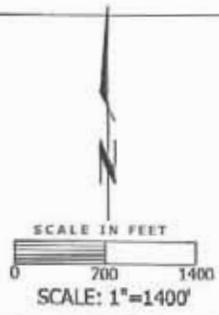




Stonebridge Alternative

2005-346 Delta Shores





- Property boundary 72.6
- Potential Jurisdictional Wetlands 3.5

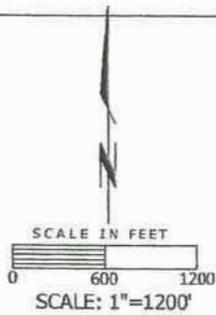
The information depicted on this graphic represents a preliminary wetland assessment. The assessment was not conducted in accordance with the Corps of Engineers Wetland Delineation Manual and is for informational purposes only. The project boundaries, wetland boundaries, and acreage values are approximate.

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Emandarold Estates Alternative

2005-346 Delta Shores





Property Boundary



444.0

Potential Jurisdictional Wetlands



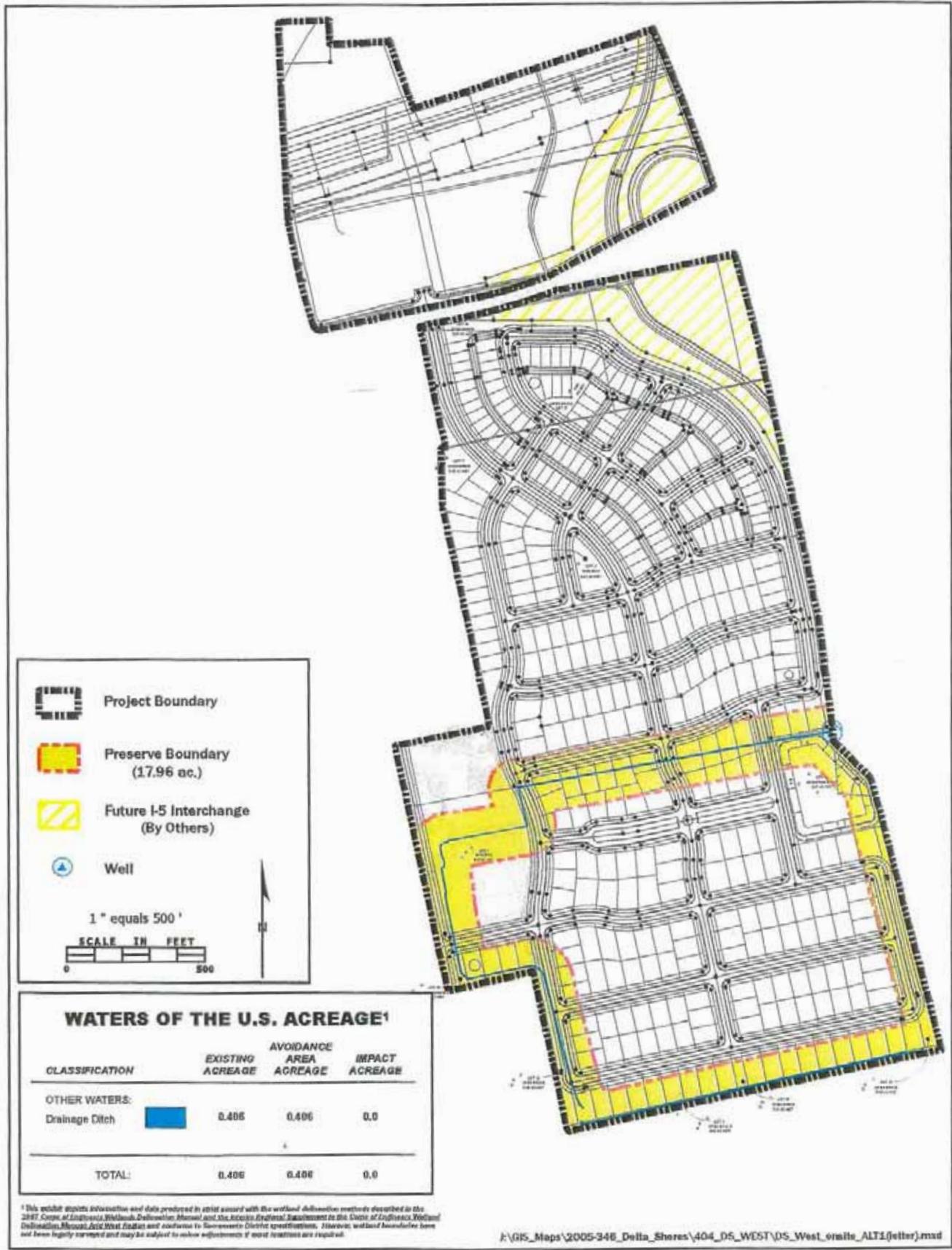
71.4

The information depicted on this graphic represents a preliminary wetland assessment. The assessment was not conducted in accordance with the Corps of Engineers Wetland Delineation Manual and Sacramento District minimum standards. The project boundaries, wetland boundaries, and acreage values are approximate.

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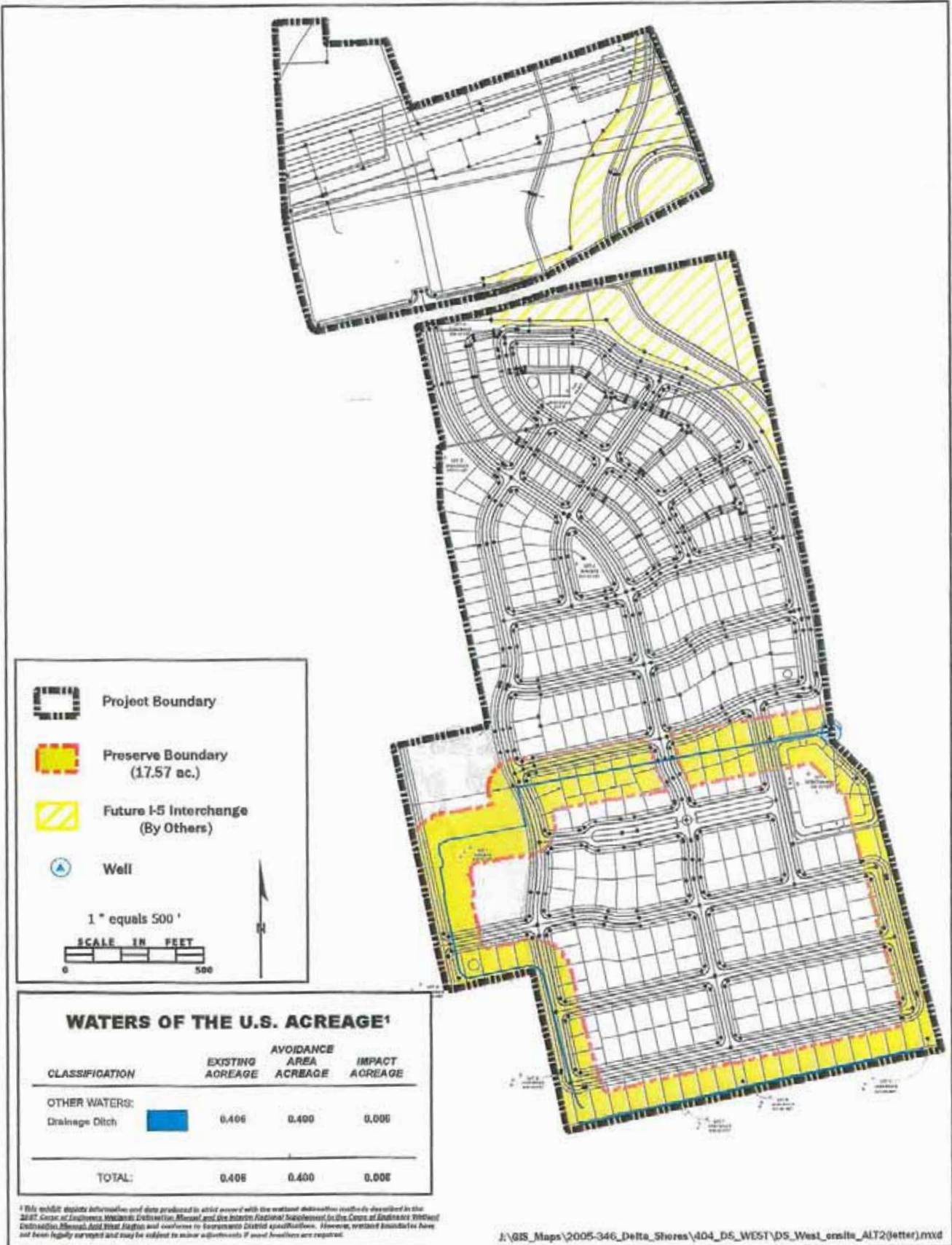
Grant Line Alternative

2005-346 Delta Shores



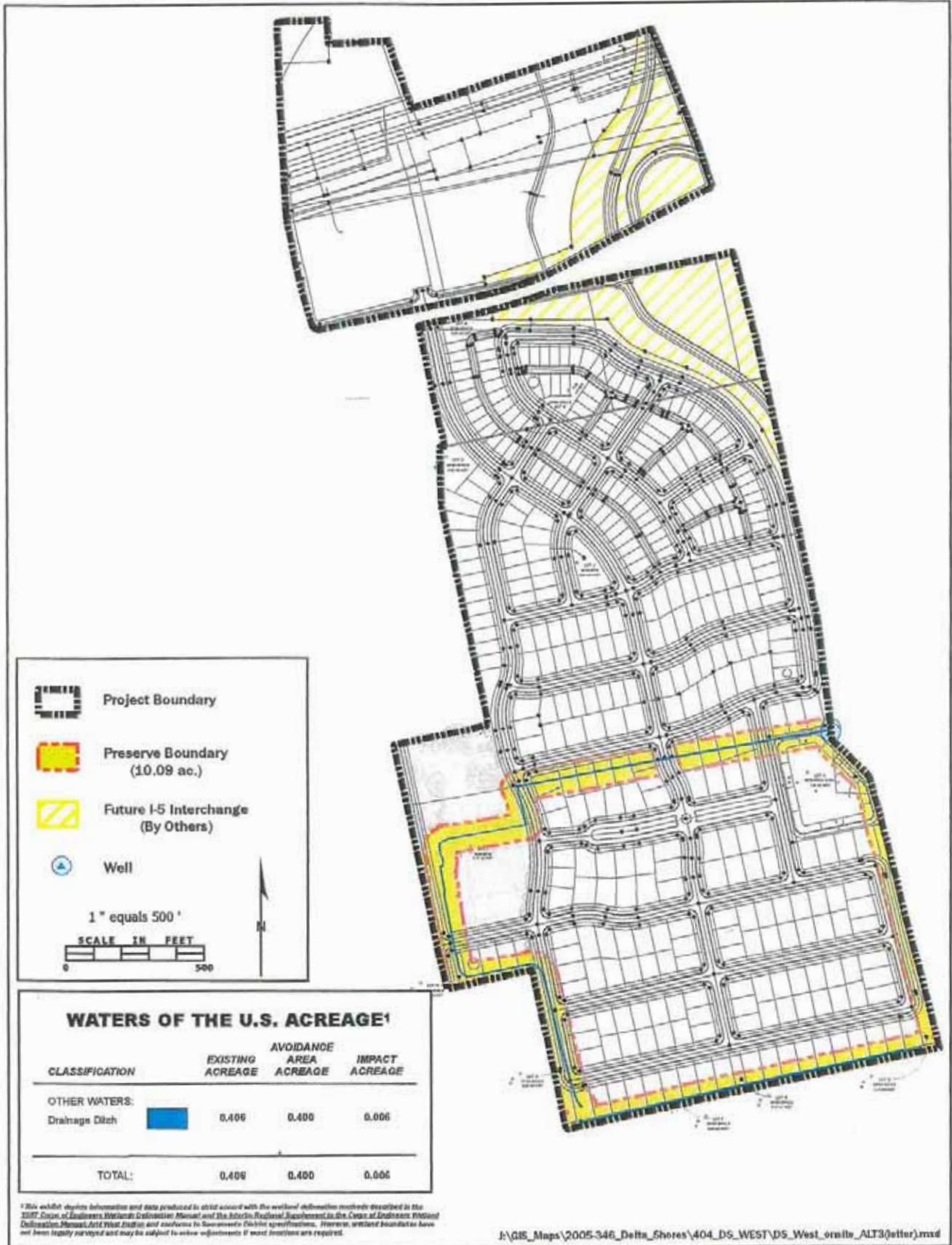
Flowing Feature Complete Preserve

2005-346 West Delta Shores



Flowing Feature Preserve

2005-346 West Delta Shores



Wetland Feature Preserve

2005-346 West Delta Shores