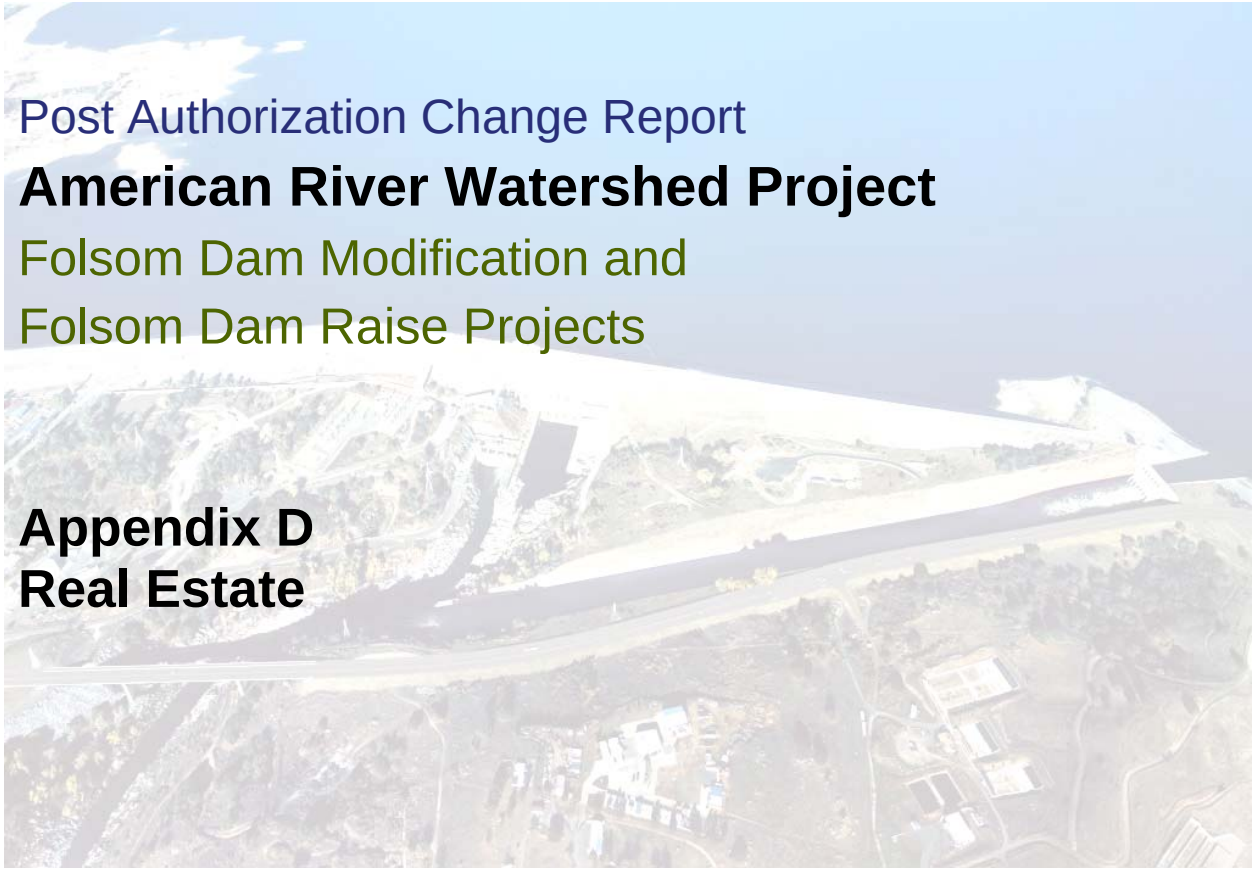
American River Watershed Project

Post Authorization Change Report

American River Watershed Project

Folsom Dam Modification and Folsom Dam Raise Projects



Appendix D
Real Estate

US Army Corps
of Engineers

Sacramento District
South Pacific Region

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CHAPTER 1.0
REAL ESTATE PLAN

1.1 INTRODUCTION

This report, prepared in accordance with ER 405-1-12, 12-18, Real Estate Plan, provides information on real estate requirements for changes made to two authorized projects: the Folsom Modification Project and the Folsom Dam Raise Project. Proposed changes to both of these projects are for the improvement of flood management on the lower American River, primarily through structural modifications to the existing Folsom Dam and appurtenant facilities. Proposed project alternatives are designed to (1) provide increased dam outlet capacity, (2) increase surcharge flood damage reduction storage, and (3) meet dam safety requirements.

Previous studies include the Supplemental Information Report for the American River Project, completed in March of 1996, which supplemented the American River Watershed Investigation of April 1991; the Second Addendum to the Supplemental Information Report, Lower American River WRDA 1999 Common Features; the Information Paper, American River Watershed, California, August 1999; the Additional Information – Folsom Dam Flood Control Storage & Downstream Levees, January 2000 Report; and the Second Addendum to the Supplemental Information Report (SIR), completed in February of 2001. Real estate requirements for the other elements of the dam raise project remain as identified in previous reports.

1.2 NON-FEDERAL SPONSOR

The Non-Federal sponsor for the Folsom Modification and Folsom Dam Raise Projects is The Reclamation Board of the State of California. The Sacramento Flood Control Agency (SAFCA) is a local cost-sharing partner with the Reclamation Board of the State of California.

1.3 AUTHORITY

Authorization to construct a dam on the American River was included in the Flood Control Act of 1944. Construction of Folsom Dam was initiated in 1948 and completed in 1956. The storms of 1986 raised concerns over the adequacy of the existing flood damage reduction system resulting in the December 1991 American River Watershed Investigation Feasibility Report. Congressional guidance was forthcoming in the 1993 Defense Appropriations Act, authorizing additional studies to develop solutions to the flood problems. This study effort was documented in the March 1996 American River Watershed Project, California, Supplemental Information Report (1996 SIR). The 1996 SIR described multiple alternative plans, of which certain levee and other flood system improvements were “common” to all alternatives. In the 1996 Water Resources Development Act (WRDA), Congress authorized only a portion of the 1996 SIR recommended plan. The authorized elements became known as “Common Features.” While efforts moved forward to further develop and implement the Common Features, discussions continued on ways to achieve higher levels of flood protection for Sacramento.

Under Section 101(a) (6) of the Water Resources Development Act of 1999 (Public Law 106-53), Congress authorized physical modifications at Folsom Dam, consistent with the descriptions provided in the United States Army Corps of Engineers (Corps) Supplemental Information Report for the American River Watershed Project, California, dated March 1996, as modified by the Folsom Dam Modification Report New Outlets Plan, dated March 1998, prepared by the Sacramento Area Flood Control Agency (SAFCA).

Headquarters, United States Army Corps of Engineers, provided guidance on the intent of this authorization, directing that a decision document be prepared to support the authorized project. A Limited Reevaluation Report (LRR) was prepared in August 2001. The primary purpose of the LRR was to demonstrate that the authorized operational and structural modifications to Folsom Dam were economically justified, technically sound, and environmentally acceptable.

As part of the reevaluation effort, the design of the authorized plan was examined to determine if enlarging the eight existing river outlets would result in a cost savings compared to constructing new outlets beneath the emergency spillway and constructing a new stilling basin downstream of the emergency spillway. As a result of this evaluation, a plan to enlarge the eight existing river outlets was developed with the outlets designed to allow for concurrent spillway releases.

Following the publication of the LRR document in 2001, constructability and operability reviews of the enlarged gates proposed in the LRR prompted additional design refinements. These refinements were documented in a final LRR report dated November 2003, which was submitted to the Assistant Secretary of the Army and approved in January 2004.

1.4 PROJECT LOCATION

The project area for the Folsom Modification Project and Folsom Dam Raise Project includes Folsom Dam and Reservoir and inflowing rivers and streams from the American River watershed, which covers about 2,100 square miles northeast of Sacramento, including portions of Placer, El Dorado, and Sacramento counties. Runoff from the basin flows through Folsom Reservoir into the lower American River and through the Sacramento metropolitan area. The river has a system of levees along both banks and leveed floodways. Folsom Dam is located at the confluence of the North and South forks of the American River, near the City of Folsom, approximately 29 miles upstream from the City of Sacramento.

1.5 BACKGROUND

In February 1986, major storms in northern California caused flood flows in the American River basin. The unprecedented high outflows from Folsom Dam and Reservoir, and the high flows in the Sacramento River, caused water levels to rise above the design freeboard of levees protecting the Sacramento area. A feasibility-scope investigations report (American River Watershed Investigation Feasibility Report) completed by the Corps in December 1991 later confirmed the flood threat and identified potential alternatives to address flooding problems, and surfaced possible dam safety issues at Folsom Dam. The report resulted in Congressional

authorization in 1993 for improvements to the levees in the Natomas area of Sacramento and guidance on further studies.

The Water Resources Development Act (WRDA) of 1999, along with supplemental documentation, identified potential modifications to Folsom Dam that would allow operators to achieve the objective release of 115,000 cubic feet per second (cfs) earlier in a flood event, and enhance the use of surcharge storage space in the reservoir through modifications to the emergency spillway and related operational changes; the project was termed the Folsom Modification Project. In the Energy and Water Development Appropriations Act of 2004, Congress authorized a plan to raise Folsom Dam; the Folsom Dam Raise Project would provide flood benefits while also resolving certain dam safety issues. Because of delays and technical problems associated with implementing the Folsom Modification Project authorized in WRDA 1999, compatibility with the potential to raise Folsom Dam, and ongoing dam safety issues at Folsom, there is now an emphasis on considering the individual projects together.

As part of the Energy and Water Development Appropriations Act of 2006, (P.L. 109-103, § 128) Congress directed that the Secretary of the Army and Secretary of the Interior collaborate on activities to maximize flood damage reduction improvements and dam safety needs at Folsom Dam. This authorization has been instrumental for both the Corps and Reclamation to work together in developing the Joint Federal Project (JFP).

1.6 PROJECT INFORMATION

The Folsom Facility consists of a gravity-type main concrete dam, left and right earth embankment wing dams, an auxiliary earthfill dam (Mormon Island Auxiliary Dam), and eight earth embankment dikes located around the rim of the reservoir.

The existing Federal Project (Folsom Dam and Lake), was constructed by the Corps as part of the Central Valley Project. The project consists of 15,717.47 acres in Fee Title and 270.63 acres of Easements. The dam and reservoir are a multipurpose flood damage reduction project with water supply components.

After construction, the Corps turned the project over to the Bureau of Reclamation for control, custody, and operation. The project lands were then leased to the State of California, Department of Parks and Recreation (DPR), except an area known as the Reclamation Zone. The lease is subject to use of project lands for reclamation and other Central Valley Project purposes pursuant to Federal Reclamation Laws and Acts of June 17, 1902 (32 Stat. 388), and acts supplementary thereto and amendatory thereof.

DPR holds title to lands adjacent to the Federally owned lands. These Federal and State owned lands are managed jointly by DPR as the Folsom Lake State Recreation Area.

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CHAPTER 2.0
ALTERNATIVE PLANS

2.1 PROPOSED ENGINEERING REFINEMENT ALTERNATIVE PLANS

Changes in project costs and regional bidding climate, and the shifting to priority status of Folsom Dam in Reclamation's dam safety program, necessitated refining the current authorized designs and approaches of providing levels of flood damage reduction, and satisfying dam safety criteria of the probable maximum flood (PMF). A joint Federal approach was taken between the Corps and Reclamation in refining design alternatives and in utilizing authorities for both flood damage reduction and dam safety to develop a base joint federal plan.

Numerous conceptual alternatives were considered. From these conceptual alternatives, the following array of action technical alternatives was developed.

2.1.1 No Action Condition

Under this alternative, the Federal Government would take no further action to reduce flood damages in the Sacramento area, other than those actions that are currently underway. This primarily includes (1) continuing of the 400,000 to 670,000 acre-foot variable space flood pool operation at Folsom Reservoir, (2) completing the Common Features project along the American River, (3) completing seismic retrofit work at Folsom facilities, (4) constructing a new bridge just west of Folsom Dam, and (5) modification of the L.L. Anderson Spillway by Placer County Water Agency. This alternative would also include Reclamation constructing an emergency fuseplug spillway project near Folsom Dam. It also includes a modification to the Folsom Dam Flood Control Diagram that was adopted by SAFCA and Reclamation in 2004. Under this plan, Folsom Dam and Reservoir, along with downstream levee improvements, would provide Sacramento with protection against the 100-year computed design flood event.

It is important to distinguish the existing condition with the future without project condition as it pertains to the PMF pool elevation. Under the existing condition, which does not pass the PMF, the PMF pool elevation would be 483.3 feet. Under the future without-project condition, which has a Reclamation fuse plug structure that passes the PMF, the PMF pool would be 477.6 (see Table 2-1).

TABLE 2-1
COMPARISON OF PERTINENT ELEVATIONS

	Existing Condition	Future-Without Project Condition
Top of Dam	480.5	480.5
Maximum Flood Pool	466.0	466
0.5% Chance Pool Elevation	474.6	474.6
PMF Pool Elevation	483.3	477.6

For Folsom Reservoir, the authorized top of flood pool is at reservoir water surface elevation 466 feet. Without a project, the current Probable Maximum Flood (PMF) reservoir elevation, with induced surcharge (space above flood pool), is 483.3 feet. For perspective, the pool elevation associated with a 200-year flood event would be at elevation 474.6 feet assuming a maximum outflow of 160,000 cfs. Folsom Dam currently is unable to safely pass the PMF without overtopping the dam, because the top of dam is 480.5 feet. The emergency fuse plug would be constructed to pass the PMF near the south abutment of the main Folsom Dam.

Despite downstream levee improvements, outflows from Folsom Dam greater than 115,000 cfs would continue to be limited to very infrequent flood events. This would mean that for most large events, Folsom Dam would remain unable to release a sustained emergency flow of 160,000 cfs, and therefore not utilize improved downstream channel capacity.

In accordance with policy at the time, real estate interests were defined to be the top of flood pool elevation plus 10 feet of elevation. The original take line for associated real estate was determined to be at elevation 476.0 feet (1950 Definite Real Estate Report). No revised take line is proposed since there is no change to the top of flood pool elevation and no new policy guidance has been developed that requires any other method of determining the guide take line.

2.1.2 Alternative A – Eight Main Dam Outlets and Fuseplug Spillway

This alternative consists of three major features: (1) enlarging six of the existing outlets and constructing two new outlets at Folsom Dam, (2) constructing two new outlets along the upper outlet tier, and (3) constructing an emergency fuseplug spillway. The resulting outlet modifications would provide for a release of 115,000 cfs at a water-surface elevation in Folsom Reservoir of 418 feet. The fuseplug spillway would be completed to address passage of the PMF. This alternative also includes modification of the flood damage reduction storage space in Folsom Reservoir to a variable space ranging from 400,000 to 600,000 acre-feet.

2.1.3 Alternative B – Six Submerged Tainter Gate Auxiliary Spillway

This alternative includes construction of a new gated auxiliary spillway southwest of Folsom Dam. The auxiliary spillway would be constructed at the same location as the emergency fuseplug spillway described in Alternative A, but in addition to passing the PMF, it would also significantly contribute to reducing flood damages along the American River. Major features include (1) an 1,100 foot-long approach channel beginning in Folsom Lake, (2) control structure, including six 33-foot 1-inch high by 23-foot-wide submerged tainter flood gates at sill elevation 368 feet, (3) 3,000-foot-long spillway chute with a bottom width of about 169 feet, and (4) stilling basin in the American River. It also includes modification of the flood damage reduction storage space in Folsom Reservoir to a variable space ranging from 400,000 to 600,000 acre-feet.

2.1.4 Alternative C – Six Submerged Tainter Gate Auxiliary Spillway, 3.5-Foot Dam Raise, and Three Emergency Spillway Gate Replacements

This alternative includes construction of a new gated auxiliary spillway southwest of Folsom Dam (similar to Alternative B), raising Folsom Dam and Reservoir by 3.5 feet, and replacing the three emergency spillway gates at Folsom Dam. It also includes modification of the flood damage reduction storage space in Folsom Reservoir to a variable space ranging from 400,000 to 600,000 acre-feet.

2.1.5 Alternative D – Six Submerged Tainter Gate Auxiliary Spillway, 7-Foot Dam Raise, and Eight Emergency and Service Spillway Gate Replacements

This alternative would be similar to Alternative C except it includes raising Folsom Dam by 7 feet (comparable to the authorized Folsom Dam Raise Project). The raise would be a combination of raising the concrete monolith and embankments and adding a parapet wall. In addition, it includes (1) replacement of existing spillway gates, (2) modification of spillway and bridge piers, (3) replacement of the spillway bridge and (4) modification of the elevator tower. It also includes modification of the flood damage reduction storage space in Folsom Reservoir to a variable space ranging from 400,000 to 600,000 acre-feet.

2.2 REFINED AUTHORIZED PROJECTS

Alternative C was identified as the Selected Plan. The Selected Plan provides the greatest benefits of all the alternatives considered, has a high likelihood of successfully providing the identified accomplishments, and is highly supported by the non-Federal sponsor. The Refined Authorized Projects (RAP) includes the Selected Plan as well as two Other Features. The Other Features include (1) ecosystem restoration components and (2) a permanent bridge increment. The RAP is considered functionally equivalent to a combination of both the Folsom Modification Project and the Folsom Dam Raise Projects.

The Selected Plan would increase the release capacity at Folsom Dam earlier in the flood event, thereby reducing flood risk to areas downstream of Folsom Dam. The construction of the 6STG would increase project discharge capacity at a lower pool elevation with no increase in pool elevation. This allows a lowering of the maximum pool and for a decrease in the need for use of surcharge storage space in the reservoir. The PMF pool elevation would be lowered from 483.3 feet to 480.2 feet with the Selected Plan, and to 476.2 with the 6STG (JFP). For perspective, the flood pool elevation associated with the 200-year flood event would be lowered from elevation 474.6 feet to 466.3 feet and limiting the maximum discharge to 160,000 cfs. Raising Folsom Dam 3.5 feet to 484.0 feet would allow for holding discharges longer at 160,000 cfs, thereby controlling events larger than the 200-year by limiting them to a maximum discharge of 160,000 cfs, the downstream capacity, by creating additional flood damage reduction space in the reservoir. The authorized top of flood pool would remain at reservoir water surface elevation 466 feet (see Table 2-2). In accordance with guidelines for take line requirements, the current (and future without-project) take line at 476 feet (top of flood pool elevation plus 10 feet) is the same or greater than the maximum pool elevation during a controlled flood event with the Selected Plan. For the Selected Plan, the controlled event does not exceed the existing real estate

take line at 476 feet as established in the Sacramento District's "Definite Project Report, Real Estate Section" dated 24 February 1950 for the Folsom Dam and Reservoir.

The 6 STG Element of the Selected Plan is also referred to as the Joint Federal Project or JFP. Both the Corps and Reclamation have an interest in this project as it satisfies Corps flood damage reduction objectives and Reclamation hydrologic risk (dam safety) objectives. Since the JFP meets both objectives, both agencies will participate in the project, constructing this project jointly. Both agencies have agreed that each would fund and construct its respective portions of the JFP.

A percent cost distribution between dam safety and flood damage reduction was developed, and all the work items of the JFP were distributed into a Corps work package and a Reclamation work package. The procedure is described elsewhere in this PAC. Each agency will fund and construct its own work package through its existing authorities. Each agency will treat its work package as its project to construct.

The responsibility to provide LERRDs is generally that of the Corps' Non-Federal Sponsor and is cost shared in accordance with the cost sharing provisions established in the Water Resources Development Act (WRDA). In identifying the items to be accomplished in each Federal agencies work packages, it was determined to be more equitable for the USBR to provide and/or perform the tasks generally associated with LERRDs, as they are the Federal agency having jurisdiction over the Folsom Dam project on which theses activities are to take place. **The USBR performance of these work items does not affect or lessen the cost share of the Corps' Non-Federal Sponsor**. What would have been considered LERRDs under WRDA is now to be accomplished by Reclamation through its work packages and its own authorities, and the Reclamation work package requirements are listed as follows.

- Accomplishment of environmental mitigation.
  Note: Under new guidance (CEWW-P, Cost Sharing Lands Associated with Fish and Wildlife Mitigation, 19 September 2006)," LERRs are cost shared as construction elements." The non-Federal sponsor's share of the cost would be the same irrespective of whether the environmental mitigation real estate requirements are included in the COE or the USBR work packages.

- Relocation of a 42-inch water pipeline (Natomas Pipeline) that provides raw water from Folsom Reservoir to the City of Folsom and California Department of Corrections water treatment plants, and water for the Corps resident office fire protection system. This aboveground pipeline is operated and maintained by Reclamation. The chute alignment for the auxiliary spillway would cross a portion of the existing aboveground pipeline. Approximately 600 feet of the existing Natomas pipeline would be relocated in kind as an aboveground pipeline. In addition, the 8-inch-diameter fire protection pipeline and the metering station that services the Corps resident office would need to be relocated.

- Relocation of the Sacramento Municipal Utility District's (SMUD) 12-kV power line that provides power to the resident office. The 12-kilovolt (kV) service was

formerly an abandoned 115 kV Pacific Gas and Electric Company (PG&E) power line. Five wood poles and approximately 1,500 feet of conductor would require relocation if the office building remains in use during the spillway construction. If the building is relocated, the power line would be decommissioned.

- Relocation of the 4,160-volt power line that serves Reclamation's yard on the right abutment. Seven poles and approximately 2,000 feet of conductor would be relocated.

Although these LERRDs are required for the JFP as a whole to function, they are in the Reclamation work package, and are Reclamation's responsibility. Reclamation will provide these LERRDs using its own regulations and procedures. Other than a Right-of-Entry to construct, there are no LERRDs identified in the Corps work packages for the JFP. Again, it must be noted that the USBR performance of these work items does not affect or lessen the fiscal cost sharing of the Corps' Non-Federal Sponsor.

TABLE 2-2
COMPARISON OF PERTINENT ELEVATIONS FOR SELECTED PLAN

	Existing Condition	Future-Without Project Condition	6STG	Selected Plan
Top of Dam	480.5	480.5	480.5	484
Maximum Flood Pool	466.0	466.0	466.0	466.0
0.5% Chance Pool Elevation	474.6	474.6	466	466
PMF Pool Elevation	483.3	477.6	476.2*	480.2

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CHAPTER 3.0
REAL ESTATE REQUIREMENTS

Real estate interests for water storage are not required for the Joint Federal Project as the project is located on Federal land.

The Real estate requirement for the Folsom Dam Raise portion of the project is identified below. As explained in Sections 2.1.1 and 2.2 above, it has been determined that there would be no change in flood pool elevation in Folsom Reservoir with the Selected Plan. The controlled event does not exceed the existing real estate take line at 476 feet.

- ***Right-of Entry*** – Required to access and to perform work on existing Federal Project lands, Rights-of-Entry will be negotiated with the Bureau of Reclamation along with approval by the State of California, Department of Parks and Recreation (DPR).

3.1 MITIGATION

Preliminary indications are that approximately 11.16 acres are required for environmental mitigation features associated with the 3.5' Folsom Dam Raise Project, which is not part of the JFP, thus the features associated with the proposed raise are not included in the work packages of the JFP, and as such will be the performance responsibility of the Corps' Non-Federal Sponsor. The land cost, estimated to be around $200,000, associated with this requirement is identified in the Construction cost summary as per new *guidance (CEWW-P Cost Sharing Lands Associated with Fish and Wildlife Mitigation, 19 September 2006) "LERRs are cost shared as construction elements*." The administrative costs are provided in Table 3-2.

3.2 DISPOSAL/BORROW SITES

The volume of excavation is relatively small; therefore, it is anticipated that disposal would be on Federal property using an assumed average haul distance of approximately 0.5 miles. New riprap, filter material, and backfill would be imported from a local source.

3.2 FEDERAL LANDS

Folsom Dam and Reservoir are owned in Fee by the United States of America. The lands, however, are leased to the State of California, Department of Parks and Recreation (DPR), except an area known as the Reclamation Zone. The lease is subject to use of project lands for reclamation and other Central Valley Project purposes pursuant to Federal Reclamation Laws and Acts of June 17, 1902 (32 Stat. 388), and acts supplementary thereto and amendatory thereof.

DPR holds title to lands adjacent to the Federally owned lands. These Federal and State owned lands are managed jointly by DPR as the Folsom Lake State Recreation Area.

3.3 SPONSOR OWNED LANDS

The non-Federal sponsor, (The Reclamation Board of the State of California and its cost-sharing partner, Sacramento Area Flood Control Agency), does not own property within the project boundaries.

3.4 PUBLIC OWNED LANDS

The State of California, Department of Parks and Recreation, holds title to lands adjacent to the Federally owned lands. These Federal and State owned lands are managed jointly by DPR as the Folsom Lake State Recreation Area.

3.5 PRIVATE OWNERSHIP

It has been determined that the existing flood pool elevation of Folsom Lake will remain the same; therefore, no additional property is required. None of the privately owned parcels surrounding the lake will be impacted.

3.6 NAVIGATIONAL SERVITUDE

There are no lands within the project area that are subject to the applications of navigational servitude.

3.7 PUBLIC LAW 91-646 RELOCATIONS AND BENEFITS

There are no PL 91-646 relocations associated with the project.

3.8 BASELINE COST ESTIMATE FOR REAL ESTATE

The JFP Administrative costs and the Folsom Dam Raise Mitigation Administrative costs, for acquiring Rights-of-Entry, meeting attendance, monitoring real estate activities, certifying for construction, etc., were estimated by the Sacramento District Real Estate Division, taking into consideration that its involvement with the project will continue for several years. The real estate activities and administrative costs shown in **Tables 3-2** are not related to and do not include the cost of work being done under USBR's work packages. A summary of the Draft Real Estate Baseline Cost Estimate for each is shown separately below in **Table 3-1** and **Table 3-2**.

TABLE 3-1
JFP BASELINE COST ESTIMATE

Federal Administrative Costs	Non-Federal Administrative Costs
$148,200	$187,200

1. Includes contingencies.

TABLE 3-2
3.5-FOOT FOLSOM DAM RAISE MITIGATION BASELINE COST ESTIMATE

Federal Administrative Costs	Non-Federal Administrative Costs
$130,200	$170,200

1. Includes contingencies

3.9 MAP

A real estate map showing the original take line at 476 feet is shown in **Plate 1.**

3.10 MINERAL INTERESTS/ACTIVITY

No marketable mineral rights will be encountered or impacted in any of the features addressed in this Real Estate Plan.

3.11 HAZARDOUS, TOXIC, OR RADIOACTIVE WASTE (HTRW)

Geotechnical explorations have identified unconsolidated material that consists of debris from the original dam construction located in areas below the dam. While no known contamination was noted in the study area which could affect the project, there are two potential HTRW sites present at the Project Site and about 70 HTRW sites within the Environmental Site Assessment Study Area in various agency databases. This material and other HTRW issues are addressed in the NEPA document for this project.

3.12 3.5-Foot Raise Facility/Utility Relocations

The Folsom Lake State Recreation Area (SRA) has seven access roads to established facilities surrounding Folsom Lake; three of the access roads cross the axes of dams or dikes at the following high points between abutments and natural grade: Beal's Point, Granite Bay, and Folsom Point. Public access to the recreation facilities would need to be maintained during construction.

The following facilities and utilities in the SRA would either be temporarily relocated or could possibly be permanently relocated. Further engineering studies will identify the owners of the affected relocations.

3.12.1 Granite Bay

A paved spur road from the second lake access forms part of the crest of Dikes 2 and 3 and proceeds to the lake and lake facilities. This spur is 1,395 feet long and would have to be at

least temporarily relocated and then reconstructed on the crest or permanently relocated. A third lake access is provided by an existing paved road that crosses Dike 2 near the right abutment, and proceeds to the lake and lake facilities. Lake access also is provided by a paved road that forms the crest of Dike 1 and wraps around the right abutment of the dike to the lake. The crest of this dike is 2,060 feet long; the crest road would have to be at least temporarily relocated and then reconstructed on the crest, or be permanently relocated.

3.12.2 Utilities

Raising the dam and dikes by 3.5-foot will have a minor impact on existing utilities. Impacted utilities include electricity, water, and wastewater facilities.

3.12.2.1 Electricity

Several power lines and utility poles would require relocation during construction including power lines running beneath the boat launch area in front of Dike 3. In order to sort and crush borrow material, processing plants would need to be established in several areas around Folsom Reservoir. The processing plants would have the option of either using diesel powered generators or extending existing electricity infrastructure. If existing electricity infrastructure is used, this could require the construction or relocation of existing infrastructure such as towers, power lines, or poles.

Several overhead power lines cross the entrance of Granite Bay. During construction, large vehicles may need to have these power lines raised in order to safely pass under them. In instances when overhead lines could create obstacles for construction vehicles, agencies will likely temporarily raise the power lines with large poles in order to avoid utility relocations and interruptions in service.

3.12.2.2 Water

Construction and borrow activities may require the relocation of existing water infrastructure, including:

- An existing 3-inch water main that serves the entrance kiosk and restroom facilities at the boat launch at Folsom Point.
- Water pipelines running beneath the boat launch area in front of Dike 3 that provides water service to the restrooms at the boat launch.

3.12.2.3 Wastewater

Construction activities to provide crest protection at Dike 4 could require the relocation of an existing sewer pipeline that runs through the upper right abutment of Dike 4 and out towards Auburn-Folsom road. Borrow activities in the vicinity of Folsom Point could require the relocation of an existing sewer line that serves the restroom facilities at the boat launch.

3.12.3 Facility/Utility Relocations Summary

Construction planning and sequencing would be performed so that existing utilities would not be impacted by Folsom JFP construction activities.

> "Any conclusion or categorization contained in this real estate plan, or elsewhere in this project report, that an item is a utility or facility relocation to be performed by the non-Federal sponsor as part of its LERRD responsibilities is preliminary only. The Government will make a final determination of the relocations necessary for the construction, operation, or maintenance of the project after further analysis and completion and approval of final attorney's opinions of compensability for each of the impacted utilities and facilities."

3.13 ATTITUDE OF LANDOWNERS AND COMMUNITY

The project has the wide support of the population that lives in the areas that would be afforded greater protection by the project.

3.14 ACQUISITION SCHEDULE

A detailed acquisition schedule is shown on **Table 3-3**. The local non-Federal sponsor has reviewed and codeveloped this schedule. The local non-Federal sponsor will be directed to begin real property acquisition for the project only after the PCA is fully executed. They are aware of the risks of initiating the acquisition process in advance of the PCA being executed.

TABLE 3-3
REAL ESTATE ACQUISITION SCHEDULE

Activity	Corps Start	Corps Finish	NFS Start	NFS Finish
Receipt of preliminary drawings from Engineering/PM	12/07	09/08		
Receipt of final drawings from Engineering/PM	10/08	10/09		
Execution of PCA	September 2008			
Formal transmittal of final drawings & instruction to acquire LERRDS	10/09	10/09		
Conduct landowner meetings			04/09	05/09
Prepare/review mapping & legal descriptions	02/09	03/09		
Obtain/review title evidence			05/08	06/08
Obtain/review tract appraisals			04/09	07/09
Conduct negotiations			08/09	09/09
Perform closing			10/09	01/10
Prepare/review any necessary eminent domain documents			N/A	N/A
Perform eminent domain proceedings			N/A	N/A
Obtain possession			N/A	N/A
Complete/review PL 91-646 benefit assistance[1]	N/A	N/A		
Conduct/review facility and utility relocations	01/10	02/10	09/09	10/09
Certify all necessary LERRDS are available for construction	05/10	05/10		
Prepare and submit credit requests			06/10	06/10
Review/approve or deny credit requests	07/10	09/10		
Establish value for creditable LERRDS in F&A cost accounting system				

Key:
Corps = Corps of Engineers
NFS = Non-Federal Sponsor
PCA = Project Cooperation Agreement
PL = Public Law
LERRDS = lands, easements, rights-of-way, utility or public facility relocations, and dredged or excavated material disposal areas

Note:
1. If necessary.

3.15 SPONSORS' ABILITY TO ACQUIRE

The non-Federal Sponsor of the Folsom Modification and Folsom Dam Raise projects include The Reclamation Board of the State of California and the Sacramento Flood Control Agency (SAFCA). The Reclamation Board, through the Department of Water Resources (DWR), has the ability to acquire the necessary rights in real estate for the flood damage reduction project. DWR has an experienced right-of-way staff and the power of eminent domain pursuant to Water Code Section 8590, et seq., and Code of Civil Procedures Section 1230.010, et seq. DWR has an experienced right-of-way staff, which has acquired lands for numerous flood control projects since implementation of the Water Resources Development Act of 1986. DWR acquired the necessary LERRDs for the WRDA-96 Common Features, a cost-shared project of which this would be an outgrowth. With this prior experience, the DWR right-of-way staff has directly applicable experience to this project and will be an asset in accomplishing the acquisition. SAFCA also has the power of eminent domain through the SAFCA Joint Exercise of Powers Agreement adopted on September 26, 1989, and the SAFCA Act signed by the Governor on August 10, 1990. SAFCA does not have a right-of-way staff; any right-of-way work performed by SAFCA would be contracted.

The sponsors have been advised of Public Law 91-646 requirements and the requirements for documenting expenses for credit purposes. A checklist showing the sponsors' ability to acquire, and a certified financial plan will be prepared to document their abilities.

FOLSOM MODIFICATIONS AND FOLSOM DAM RAISE PROJECTS

SPONSOR: The Reclamation Board of the State of California

I. Legal Authority:

a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? **Yes**

b. Does the sponsor have the power of eminent domain for this project? **Yes**

c. Does the sponsor have "quick-take" authority for this project? **No**

d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary? **No**

e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? **Yes (Federal)**

II. Human Resource Requirements:

a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including Public Law 91-646, as amended? **No**

b. If the answer to II.a. is "yes," has a reasonable plan been developed to provide such training? **N/A**

c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? **Yes**

d. Is the sponsor's project in-house staffing level sufficient considering its other workload, if any, and the project schedule? **Yes**

e. Can the sponsor obtain contractor support, if required, in a timely fashion? **Yes**

f. Will the sponsor likely request Corps assistance in acquiring real estate? **No**

II. Other Project Variables:

a. Will the sponsor's staff be located within reasonable proximity to the project site? **Yes**

b. Has the sponsor approved the project real estate schedule/milestones? **Yes**

IV. Overall Assessment:

a. Has the sponsor performed satisfactorily on other projects? **Yes**

b. With regard to this project, the sponsor is anticipated to be: State of California Reclamation Board, Department of Water Resources.

V. Coordination:

a. Has this assessment been coordinated with the sponsor? **Yes**

b. Does the sponsor concur with this assessment? **Yes**

Prepared by:

_____

Dee La Sala
Realty Specialist
Acquisition Branch

Date _____

Reviewed and Approved by:

_____

Sharon Caine
Chief, Real Estate Division

Date _____