FINAL ENGINEER'S REPORT

SACRAMENTO AREA FLOOD CONTROL AGENCY NATOMAS BASIN LOCAL ASSESSMENT DISTRICT



Prepared for: Sacramento Area Flood Control Agency

> **Prepared by:** Parsons Brinckerhoff

> > April 28, 2011

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List of Acronyms/Abbreviations

Basin	Natomas Basin
CCAD	Consolidated Capital Assessment District
Corps	U. S. Army Corps of Engineers
DWR	California Department of Water Resources
NBLAD	Natomas Basin Local Assessment District
NCC	Natomas Cross Canal
NEMDC	Natomas East Main Drainage Canal
PACR	Post-Authorization Change Report
PGCC	Pleasant Grove Creek Canal
Project	Natomas Levee Improvement Program
Project Additions	Changes to the Project to be Partially Funded by NBLAD
RD 1000	Reclamation District 1000
SAFCA	Sacramento Area Flood Control Agency
State	State of California

1.0 INTRODUCTION

1.1.1 Background

This Final Engineer's Report ("Report") has been prepared on behalf of the Sacramento Area Flood Control Agency ("SAFCA"). It describes the funding objectives, apportionment methodology, formation process, and collection timeline of a new special benefit assessment district proposed for the Natomas Basin in Sacramento and Sutter Counties, California ("Natomas Basin Local Assessment District" or "NBLAD"). The purpose of this new district is to provide additional local funding to cover cost increases in the ongoing Natomas Levee Improvement Program ("Natomas Project" or "Project").

The Project was initiated by SAFCA in 2007 following creation of the Consolidated Capital Assessment District ("CCAD"). The CCAD covers properties in the 200-year floodplain in the Sacramento Area, including all of the properties in the Natomas Basin (or "Basin"). It provides funding for the estimated local share of the cost of the projects necessary to provide these properties with a 200-year level of flood protection in accordance with public safety objectives adopted by the California Legislature.

Since 2007, changes in urban levee design standards have required significant modifications to the Project and increased the estimated total Project cost. Approximately one-half of the increased cost is attributable to design changes in the levee improvements along the Sacramento River east levee. These changes are required to address new levee vegetation and encroachment standards adopted by the U. S. Army Corps of Engineers ("Corps") after formation of the CCAD. The other half of the increase is attributable to design changes in the levee improvements needed along the east side of the Basin. These changes are needed to address newly calculated water surface elevations and new geotechnical data gathered along the footprint of the east side levees. In both cases, the design changes involve a substantial expansion of the Project footprint and significant increases in land acquisition, relocation and mitigation costs and associated increases in planning, engineering and construction management costs. Collectively the changes to the Project to be partially funded by the NBLAD will be referred to in this Report as the "Project Additions". The costs of the Project Additions are identified in a revised Project cost estimate prepared for the SAFCA Board in connection with this Report.

The Project Additions are heavily concentrated in land acquisition and relocation activities; therefore, they have not only raised the total cost of the Project but they have also altered the allocation of the Project cost among the Project sponsors: SAFCA, the State of California ("State") and the Federal Government. Under applicable Federal cost-sharing guidelines, SAFCA and the State must contribute a minimum of 35 percent of the total Project cost. This minimum contribution rises if land and relocation costs exceed 30 percent of the total Project cost. In this instance, the Project Additions will likely cause the Project to exceed that threshold and thus require the State and SAFCA to contribute approximately 40 percent of the total cost of the Project. In addition, the Federal cost sharing guidelines will require SAFCA to cover all of the long-term management costs associated with the fish and wildlife mitigation features included in the Project Additions.

All of these additional obligations are expected to increase SAFCA's required contribution to the Project by about \$54.4 million, from \$43.5 million to a new total of \$97.9 million. This increase will be offset by \$16.1 million in Federal credits which SAFCA received in 2010 for Natomas

levee improvement work completed in the 1990's. A small contribution from the Sacramento County Airport System will cover an additional \$1.0 million of the increase. The remaining local funding gap of approximately \$37.3 million must be covered by the proposed new assessment.

This Report describes the methodology by which this increased cost is proposed to be apportioned to all of the properties in the Natomas Basin that will receive a special benefit. This methodology is essentially the same as the methodology used for the CCAD. The special benefit of the Project Additions to each property is estimated based on the proportional damage that would be inflicted on each parcel in a catastrophic flood or, stated another way, to the damage that would be avoided by protection from the flood. This estimated damage is calculated based on the land use category of the property (residential, commercial, industrial, etc.), the square footage of any structures located on the property, and the relative depth of flooding that would occur on the property in the event of a catastrophic failure of the levee system protecting the Natomas Basin. These data are used to determine the damages to land, structures and the contents of structures in each land use category that would be expected to occur in the event of a catastrophic flood. By reducing the risk of such a flood, the project confers a special benefit to each property in the Natomas Basin as measured by avoidance of the expected damages to that property which would occur in the event of such a flood.

A key parameter in the calculation of this special benefit is the information that is used to determine the relative damages that would be experienced by residential and non-residential properties. The CCAD assessments were calculated based on depth damage curves produced by the Federal Insurance Administration in the late 1960s and adapted for flood risk reduction studies prepared for the Sacramento Area in the 1990s by the Corps. The Corps has since updated these curves in its 2010 *Post-Authorization Report and Interim Reevaluation Report, American River Common Features Project, Natomas Basin, Sacramento and Sutter Counties, California* ("Post Authorization Change Report", or "PACR"). The new curves assign a slightly greater portion of the flood damages likely to result from catastrophic flooding to residential land uses and a smaller portion to commercial and industrial land uses. These new curves have been used to calculate the assessments proposed in connection with the new NBLAD.

As in the case of the CCAD, formation of the NBLAD will require the approval of the owners of property in the Natomas Basin that will receive a special benefit and upon which an assessment will be imposed according to the requirements and procedures in Proposition 218 (California Constitution, Article XIIID, and Section 4). The SAFCA Board will seek this approval by conducting a mail ballot process similar to the one conducted in connection with the CCAD. Under this process, the owners of all affected properties will receive, by mail, a notice of the proposed assessment and of a public hearing on the proposed assessment, and a ballot. The notice will describe the purpose of the proposed assessment district, the total amount of the assessment chargeable to the entire assessment district, the amount chargeable to the owner's particular parcel, the duration of the payments, and the basis on which the proposed assessment was calculated.

Unlike the CCAD which has a maximum collection period of 30 years commencing in the year of approval, the NBLAD will have a maximum collection period of 40 years commencing two to three years <u>after</u> the year of approval. The reason for this gap in time between assessment district approval and the beginning of assessment collection is that CCAD bond funds are currently available for expenditure for some of the Project Additions, provided there is a secure method of

reimbursing these funds when they are needed for other CCAD projects outside of Natomas. If the NBLAD is <u>not</u> approved, then currently available CCAD funds could <u>not</u> be used for the Project Additions, and that necessary flood protection would not be able to be provided.

If the NBLAD <u>is</u> approved, the currently available CCAD funds would be used immediately for Project Additions, and when these CCAD funds are needed for their originally intended purpose, NBLAD bonds would be sold to repay those CCAD funds or state and federal monies would be used to repay them (in which case the NBLAD bonds would be used to directly pay for Project Additions). In either case the NBLAD assessments would not begin to be levied for two years. The cost of issuing the NBLAD bonds and providing a reserve fund to ensure timely payment of the NBLAD bonds will increase the total costs to be covered by the new assessment by about \$3.3 million to a total of \$40.6 million.

The SAFCA Board will decide whether or not to proceed with formation of the NBLAD at a special meeting on March 2, 2011. If the Board tentatively approves this Report and adopts a Resolution of Intention to form the new district on March 2, 2011, the mail balloting process would begin on March 14, 2011 and end 45-days later at the conclusion of a public hearing on the NBLAD to be held at a special meeting of the SAFCA Board on April 28, 2011. Property owners will be able to return their ballots either by mail or in person at any time prior to the public hearing or bring their ballots to the hearing. When the ballots are tabulated, each ballot will be weighted according to the proportional financial obligation of the affected property under the proposed assessment district. At the close of the public hearing, the Board will adjourn the special meeting will be reconvened on April 29, 2011 to receive the results of the tabulation. If there is not a majority of the weighted vote opposed to the assessment, the Board will then consider forming the NBLAD and authorizing the collection of assessments.

2.0 DESCRIPTION OF FUNDED PROJECTS ELEMENTS AND ACTIVITIES

2.1 GENERAL

As discussed in Section 1.0, changes in Federal and State levee design standards and new data on levee foundation and embankment conditions have required significant alterations to the design of the Natomas Project compared to the design presented in the 2007 CCAD Engineer's Report ("CCAD Engineer's Report"). This section describes these design changes and identifies the new project elements and activities that constitute the "Project Additions" and that would be funded in part by the NBLAD.

2.2 200-YEAR PROJECT EVALUATED IN THE CCAD ENGINEER'S REPORT

As set forth in the CCAD Engineer's Report, the principal objective of the NLIP is to provide the Natomas Basin with a 200-year level of flood protection. The improvements necessary to achieve this objective are identified and described in two previous reports to SAFCA comprising the Natomas Levee Evaluation Study:

- *Natomas Levee Evaluation Study, Preliminary Cost Estimate*, July 2006, prepared for SAFCA by Parsons Brinckerhoff; and
- *Natomas Levee Evaluation Study, Final Report*, July 14, 2006 ("Final Report"), prepared for SAFCA by a team of engineering and environmental consultants.

The Final Report presented modeling data showing the water surface elevations that would be produced by a 200-year flood in the major water bodies around the Natomas Basin. Based on these water surface elevations, the report identified deficiencies in the Natomas perimeter levee system that would need to be addressed in order to provide the Basin with at least a 200-year level of flood protection. These deficiencies included inadequate levee freeboard, levee foundation and slope stability deficiencies and susceptibility to erosion. They were concentrated principally along the Natomas Cross Canal ("NCC") south levee and the Sacramento River east levee.

The Final Report also identified the measures that would address these deficiencies. These measures were patterned on the levee improvement program underway along the American River outside Natomas. As shown in Figure 2-1, these measures included levee raising and cutoff wall construction along the entire 5.3 mile length of the NCC south levee and the upper 12 miles of the Sacramento River east levee; cutoff wall construction along the lower 6.5 miles of the Sacramento River east levee and 1.8 miles of the American River north levee; and erosion protection at several sites covering 2.1 miles along the waterside of the Sacramento River east levee. Only minor improvements were proposed for limited portions of the levees along the eastside of the Natomas Basin based on the performance history of these levees and improvements made to them as part of SAFCA's North Area Local Project in the 1990's.



Figure 2-1: Natomas Levee Evaluation Study – Location of Improvements

2.3 CHANGED CONDITIONS FOLLOWING APPROVAL OF THE CCAD ENGINEER'S REPORT

Following the SAFCA Board's approval of the CCAD Engineer's Report and approval of the CCAD assessment by affected property owners a number of changed circumstances compelled SAFCA to modify the design of the Natomas Project. First, in response to the flooding of New Orleans by Hurricane Katrina, the Corps decided to strictly enforce a national standard for designing new levees or substantial improvements to existing levees. This design standard requires removal of woody vegetation from the levee structure; elevation of pipes and other facilities that penetrate the levee structure; and reconfiguration of landside levee slopes where feasible. Application of this standard made it impractical to proceed with the planned improvements along the Sacramento River east levee because of the density and extent of the waterside vegetation that would have to be removed and the number of waterside homes that would have to be demolished or relocated.

Second, new State and Federal hydrologic modeling data required SAFCA to design the Natomas Project based on higher 200-year water surface elevations than anticipated in the CCAD Engineer's Report. These higher 200-year water surface elevations affected the analysis of geotechnical boring data gathered after approval of the CCAD Engineer's Report from the footprint of the levees along the Pleasant Grove Creek Canal ("PGCC") and the Natomas East Main Drainage Canal ("NEMDC"). These data, based on the most recent water surface elevations, indicated extensive levee foundation and slope stability deficiencies as well as erosion susceptibility in areas where the CCAD Engineer's Report had assumed no work would be required.

2.4 REDESIGN OF THE NATOMAS PROJECT

These changed conditions have compelled SAFCA to redesign the elements and activities comprising the Natomas Project¹. In order to comply with the Corps' levee vegetation and encroachment standards along the Sacramento River east levee, the SAFCA Board approved an adjacent levee design that incorporates landside seepage berms rather than cut-off walls in numerous locations to control underseepage. In order to address the newly identified deficiencies in the levees along the east side of the Basin, SAFCA has developed a levee widening design similar to the adjacent levee which will be implemented along the 3.3 mile length of the PGCC west levee and the upper 9.4 miles of the NEMDC west levee. This design calls for widening the existing crown of these levees and flattening their landside slopes to provide embankment stability and installing cutoff walls where necessary to address underseepage vulnerabilities.

These new designs have greatly expanded the project footprint along the west and east sides of the Natomas Basin and added new elements and associated activities to the Project. These activities include excavating and transporting substantial additional volumes of soil borrow material; acquiring considerably more land than originally anticipated; undertaking extensive relocation activities affecting electrical and communication utility lines, roadways, and irrigation

¹ The changes in the Project that are proposed to be funded in part by the NBLAD were analyzed in a series of environmental impact reports ("EIRs") and addenda prepared pursuant to the California Environmental Quality Act and environmental impact statements ("EISs") prepared pursuant to the National Environmental Policy Act. These environmental documents are listed in the References contained in Section 8.0.

and drainage facilities; and providing a significantly enhanced environmental mitigation program. These are the "Project Additions" and the following discussion outlines these elements and activities and notes how the redesigned Project compares to the levee improvement program presented in the CCAD Engineer's Report.

2.4.1 <u>Levees and Floodwalls</u>

This element covers the flood control features of the Project including reconfiguring, raising, and reconstructing levees, constructing landside seepage berms, installing cutoff walls, and carrying out related levee improvement activities around the perimeter of the Natomas Basin. These improvements reflect the 200-year flood protection guidelines currently under development by the California Department of Water Resources ("DWR"); and the levee vegetation and encroachment management guidelines recently adopted by the Corps. The resulting levee and floodwall features are as follows:

- Reconfiguration of the entire 5.3 mile NCC south levee to raise the levee and widen it to flatten its landside and waterside slopes. The reconfigured levee will contain a deep cutoff wall to address identified foundation seepage vulnerabilities. These improvements are similar to the project design assumed in the CCAD Engineer's Report.
- Construction of a new levee adjacent to and behind the existing Sacramento River east levee extending for approximately 18.5 miles from the Interstate 5 overcrossing near the mouth of the American River to the mouth of the NCC in Sutter County. The adjacent levee design addresses the Corps' new vegetation and encroachment management requirements, allowing existing vegetation and most residential facilities to remain along the waterside of the existing levee. The new levee will be higher than the existing levee where necessary in order to address identified levee height deficiencies between the NCC and Powerline Road. As shown in Figure 2-2, alterations in stormwater run-off patterns resulting from this height differential are addressed through construction of a roadside swale which will receive runoff from the Garden Highway and discharge this stormwater into widely spaced conduits beneath the road for discharge to the Sacramento River. The new adjacent levee will contain cutoff walls of various depths to address identified foundation seepage vulnerabilities. In areas of extremely deep foundation seepage, the new levee will include landside seepage berms rather than or in addition to cutoff walls to ensure foundation stability. The new adjacent levee design, particularly with the addition of landside seepage berms at several locations along the Sacramento River east levee, has a much wider footprint than the design assumed in the CCAD Engineer's Report.
- Installation of cutoff walls along 1.8 miles of the American River north levee between Interstate 5 and Northgate Boulevard to address identified foundation seepage vulnerabilities in this segment of the perimeter levee system. These improvements are essentially the same as the project design assumed in the CCAD Engineer's Report.
- Installation of cutoff walls at several locations along the lower 4.4 miles of the NEMDC west levee. These walls will address foundation seepage vulnerabilities where the levee and adjoining NEMDC channel diverted streams that flowed into the Natomas Basin prior to its reclamation. These improvements were not anticipated by the design assumed in the CCAD Engineer's Report.

- Reconfiguration of the upper 9.4 miles of the NEMDC west levee to widen its crown and flatten its landside slope. The reconfigured levee will contain cutoff walls of various depths at several locations throughout this reach to address identified foundation seepage vulnerabilities. Figure 2-3 displays the design of the reconfigured levee. These improvements were not anticipated by the design assumed in the CCAD Engineer's Report.
- Reconfiguration of 3.3 miles of the existing PGCC west levee to widen its crown and flatten its landside slope in a manner similar to the reconfiguration of the NEMDC west levee. The reconfigured levee will contain cutoff walls of various depths at several locations throughout this reach to address identified foundation seepage vulnerabilities. These improvements are much more extensive than the design assumed in the CCAD Engineer's Report.







2.4.2 Interior Drainage Pumping Facilities

This element covers reconstruction of interior drainage pumping facilities located along the perimeter levee system in Natomas that discharge storm water and irrigation tail water into the water bodies around the Basin. There are 11 such facilities that must be reconstructed to accommodate the redesigned project footprint and the higher water surface elevations. Eight of these facilities are owned and operated by Reclamation District 1000 ("RD 1000") and three are owned and operated by the City of Sacramento. These improvements were not included in the design of the project assumed in the CCAD Engineer's Report.

2.4.3 <u>Relocations</u>

This element covers facility relocations other than interior drainage pumps. It includes the following activities:

- Relocation of electrical utility poles at the landside toe of existing levees;
- Demolition of structures and removal of trees in the footprint of the Project;
- Relocation of existing irrigation facilities including the facilities owned and operated by the Natomas Central Mutual Water Company. These include the Elkhorn and Riverside Irrigation Canals and the Prichard, Elkhorn and Riverside Irrigation Pumping Plants; and
- Relocation of roadways and bridges, particularly along the east side of the Basin.

These activities were not included in the design of the project assumed in the CCAD Engineer's Report.

2.4.4 Fish and Wildlife Facilities

This element includes the land, facilities and long-term management activities necessary to compensate for the effects of the redesigned Project on fish and wildlife habitat. The extent of the required compensation in each category is specified in the environmental documents and permits that have been prepared and adopted in connection with the Project. Thus, the Project includes the following fish and wildlife mitigation facilities:

- Creation of approximately 235 acres of woodland habitat to compensate for clearing and removing approximately 80 acres of existing woodlands from the Project footprint primarily along the landside of the Sacramento River east levee and the American River north levee.
- Preservation of approximately 240 acres of row cropland to compensate for eliminating an equal amount of row cropland within the project footprint along the Sacramento River east levee.
- Construction of approximately 220 acres of managed marsh habitat to compensate for eliminating an equal amount of rice cropland and associated irrigation and drainage ditches primarily in the northwestern and northeastern portions of the Natomas Basin.
- Construction of a new drainage canal linking RD 1000's North Drainage and West Drainage Canals along an alignment parallel to the Sacramento River west of the Airport. In addition to providing increased capacity for drainage and irrigation activities, this new canal will provide approximately 56 acres of aquatic habitat to compensate for Project impacts to ditches and other agricultural facilities that contain wetlands and other waters of the United States regulated by the Corps under the Federal Clean Water Act.

- Planting and establishment of approximately 600 acres of native grasslands on levee slopes, seepage berms, and operation and maintenance corridors in the project footprint in all reaches of the Natomas Basin.
- Creation of approximately 10 acres of shaded riverine aquatic ("SRA") habitat at selected locations along the Sacramento River and American Rivers to compensate for project construction activities on the waterside of the Sacramento River east levee.
- Long-term management of the constructed fish and wildlife mitigation facilities.

The CCAD Engineer's Report anticipated only minor fish and wildlife mitigation facilities.

2.4.5 Land Acquisition

This element covers acquisition of all of the property needed to accommodate the project footprint, provide soil borrow material for levee improvements and irrigation canal construction, and support fish and wildlife mitigation facilities. This element also includes the activities necessary to support the land acquisition process including property owner outreach, surveying, land appraisal, and legal administration. The CCAD Engineer's Report anticipated only a minor land acquisition program.

2.4.6 <u>Planning, Engineering, Design and Supervision</u>

This element covers the activities associated with project planning, engineering and design. It includes agency planning and coordination, environmental review and permitting, civil and landscape design, surveying, geotechnical investigation and analysis, general engineering services, compliance with Central Valley Flood Protection Board and Corps permits and permissions, and peer review. This element also includes compliance activities under the National Historic Preservation Act, including the activities necessary to identify, monitor and document numerous Native American burial sites containing human remains and culturally significant artifacts that are located in and around the expanded footprint of the project along the Sacramento River. Finally, this element covers construction management activities. The CCAD Engineer's Report did not anticipate any substantial cultural resource preservation activity but did include planning, engineering, design, and supervision activities on a proportionately smaller scale than the redesigned Project.

3.0 ESTIMATED COST OF FUNDED PROJECT ELEMENTS AND ACTIVITIES

3.1 GENERAL

This section identifies the costs associated with the redesigned Project, describes the manner in which these costs will likely be allocated among the sponsors of the Project, specifies the share of the cost that is allocable to SAFCA, and indicates the portion of this cost share that will be funded by the NBLAD.

3.2 BACKGROUND

In December 2010, SAFCA engaged the team of environmental, engineering and real estate consultants which has assisted in the redesign of the Project to produce a comprehensive update of SAFCA's estimated cost of the Project. The team was also directed to compare the updated cost estimate to the cost estimates presented in the CCAD Engineer's Report and to the cost estimates presented in the Post-Authorization Change Report which the Corps submitted to Congress in December 2010. The updated cost estimate and comparisons are contained in the reports prepared for SAFCA by MBK Engineers and Parsons Brinckerhoff dated January 14, 2011 which are available on SAFCA's website at www.safca.org.

3.3 SAFCA'S UPDATED TOTAL PROJECT COST ESTIMATE

SAFCA's updated cost estimate is organized into nine principal accounts reflecting the project elements and activities comprising the redesigned Project: Fish and Wildlife Mitigation Facilities; Levees and Floodwalls; Internal Drainage Pumping Plants; Land Acquisition; Land Acquisition Administration; Relocations; Planning, Engineering and Design; Cultural Resources; and Construction Management. The cost estimate assumes that SAFCA and the State will complete about half of the indentified Project elements and activities by the end of 2011 and the Corps will complete the balance over a six or seven year period ending in 2017 or 2018. The estimates are based on a combination of actual costs incurred by SAFCA through the end of 2010 and consultant opinions of probable cost for the portions of the redesigned Project that have not been implemented. In addition, the estimate includes contingencies and cost escalations to reflect uncertainties in future design and construction conditions.

Figure 3-1 displays the geographical extent of the redesigned Project elements to be constructed by SAFCA and the Corps. Table 3-1 presents a summary of SAFCA's updated cost estimate.





Table 3-1: Total Project Cost Estimate for the Redesigned Project					
Project Elements	Cost (\$)	Cont. (\$)	Escalation (\$)	Total (\$)	
Fish & Wildlife Facilities	\$48,299,578	\$2,529,333	\$0	\$50,828,911	
Levees & Floodwalls	\$219,911,552	\$30,287,863	\$11,351,431	\$261,550,846	
Internal Drainage					
Pumping Plants	\$33,541,000	\$6,274,350	\$1,910,619	\$41,725,969	
Subtotal Cons. Costs	\$301,752,130	\$39,091,546	\$13,262,051	\$354,105,727	
Land Acquisition	\$72,236,360	\$5,715,831	\$3,994,707	\$81,946,897	
Land Acquisition,					
Admin.	\$33,759,096	\$3,100,910	\$1,083,981	\$37,943,987	
Relocations	\$71,470,115	\$14,433,125	\$5,847,740	\$91,750,980	
Planning, Engineering, &					
Design	\$121,989,917	\$16,547,153	\$1,931,724	\$140,468,795	
Cultural Resources	\$8,488,923	\$1,096,242	\$127,176	\$9,712,341	
Construction					
Management	\$52,445,809	\$7,889,692	\$3,703,037	\$64,038,538	
Total Project	\$662,142,350	\$87,874,498	\$29,950,416	\$779,967,264	

3.4 COMPARISON TO CCAD ENGINEER'S REPORT COST ESTIMATE

SAFCA's updated cost estimate is approximately \$366 million higher than the estimate for the Natomas Project presented in the CCAD Engineer's Report. This increase reflects the Project Additions discussed in Section 2.0. Approximately half of the increase is attributable to enlarging the Project footprint along the Sacramento River east levee to comply with the Corps' levee vegetation and encroachment requirements. The other half is attributable to enlarging the Project footprint along the Basin where the existing PGCC and NEMDC levees must be reconfigured to contain a much higher water surface elevation than was anticipated in the CCAD Engineer's Report. The resulting changes in the estimated cost of the Project are displayed in Table 3-2.

Table 3-2: Comparison of Project Cost Estimates						
	CCAD Redesigned		Difference			
	Engineer's Report	Project				
Sacramento River East Levee	276.7	464.4	187.7			
NCC South Levee	89.0	85.5	(3.5)			
Eastside Levees (PGCC and	29.8	215.0	185.2			
NEMDC)						
American River North Levee	18.6	15.1	(3.5)			
Total	414.1	780.0	365.9			

3.4.1 Updated Cost-Sharing Estimates

As reflected in the CCAD Engineer's Report, the Natomas Project is being implemented with the expectation that the costs of the Project will be shared by SAFCA, the State, and the Corps in accordance with existing Federal and State cost sharing guidelines applicable to flood control projects in the Central Valley. Under applicable Federal guidelines, non-federal sponsors (the State and its local partner) are required to pay 5 percent of the total cost of the Project exclusive of operation and maintenance costs, and provide all lands, easements, rights-of-way; relocations, and disposal areas ("Lands and Relocations") necessary to support the project. If the total cost of these Lands and Relocations is less than 30 percent of the total cost of a project then the non-federal sponsor is obligated to provide additional cash contributions as necessary to bring the total non-federal contribution to 35 percent of the total project cost, the non-federal sponsor must pay the excess amount up to a maximum of 50 percent of the total project cost. Under applicable State guidelines, local partners like SAFCA are obligated to contribute 30 percent of the non-federal cost of the non-federal cost of the project and assume 100 percent of the cost of all operation and maintenance activities.

The design of the Project covered by the CCAD Engineer's Report required no significant relocations and very little land acquisition. Thus, the share of the estimated total cost of the Project allocable to the State and SAFCA was 35 percent. Accordingly, of the estimated \$414.1 total Project cost, \$144.9 million was allocable to the State and SAFCA. SAFCA's 30 percent share of this allocation was \$43.5 million.

The design changes in the Project not only have raised the total cost of the Project by comparison to the CCAD Engineer's Report but they have also added substantial Lands and Relocations costs, thereby increasing the required non-federal contribution beyond the minimum 35 percent threshold. In addition, since the redesigned Project requires additional fish and wildlife mitigation facilities with substantial long-term management costs, the design changes have increased SAFCA's contribution as a percentage of the total Project cost.

Table 3-3 compares the total Project costs and cost allocations associated with the Project design described in the CCAD Engineer's Report to the total Project cost and cost allocations associated with the redesigned Project.

Table 3-3: Comparison of Cost Allocations									
	CCA	CCAD Engineers Report				Redesigned Project			
	SAFCA	STATE	FED	TOTAL	SAFCA	STATE	FED	TOTAL	
Cash Contribution (1)	6.2	14.5	0.0	20.7	11.6	27.1	0.0	38.7	
Land Acquisition									
(Incl. Admin)	0.3	0.8	0.0	1.1	40.8	95.1	0.0	135.9	
Relocations	1.9	4.1	0.0	6.0	38.5	89.9	0.0	128.4	
Construction	1.3	3.0	0.0	4.3	27.5	64.2	0.0	91.7	
Plan, Eng. & Design	0.4	0.7	0.0	1.1	6.9	16.0	0.0	22.9	
Construction Mgt.	0.2	0.4	0.0	0.6	4.1	9.7	0.0	13.8	
Other Project Costs	33.0	77.0	269.2	379.2	0.0	0.0	470.0	470.0	
Long-Term Mgt.									
(Endowment)	0.0	0.0	0.0	0.0	7.0	0.0	0.0	7.0	
TOTAL	43.5	101.4	269.2	414.1	97.9	212.1	470.0	780.0	
(1) 5 Percent of Total Project Cost Exclusive of Long Term Mgt.									

The Lands and Relocations costs associated with the redesigned Project as shown in Table 3-3 reflect two important calculations derived from SAFCA's updated project cost estimate as shown First, the Relocations cost for Planning, Engineering and Design and for in Table 3-1. Construction Management allocable to this project element has been increased from \$1.7 million (\$1.1 million plus \$0.6 million) to \$36.7 million (\$22.9 million plus \$13.8 million). Second, the Lands cost includes \$16.0 million (not shown separately in Table 3-3) based on reallocating some of the costs of obtaining borrow material for levee improvement activities that are assigned to the Levees and Floodwalls account in the updated cost estimate. This reallocation reflects the possibility that these costs will be categorized as a Lands and Relocations cost rather than a construction related cost. By comparison to the cost shares anticipated in the CCAD Engineer's Report, these adjustments have the effect of increasing the non-federal contribution from \$144.9 million to \$303.0 million or about 40 percent of the total Project cost. SAFCA must contribute 30 percent of this total or \$90.9 million. In addition, SAFCA will likely be required to cover all long-term management costs for the Fish and Wildlife Mitigation Facilities, thus bringing SAFCA's contribution to \$97.9 million, or about \$54.4 million more than anticipated in the CCAD Engineer's Report.

4.0 FINANCING PLAN

4.1 GENERAL

This section describes SAFCA's plan for financing the \$54.4 million increase in SAFCA's share of the cost of the redesigned Project identified in Section 3.0. As in the financing plan adopted in connection with the CCAD Engineer's Report, the updated plan includes a combination of new Natomas property owner assessments, other local contributions, use of available CCAD bond funds, and Federal credits. Each of these funding elements is described below.

4.2 FEDERAL CREDITS FOR EARLY IMPLEMENTATION OF THE NATOMAS AREA LOCAL PROJECT IN THE 1990'S

A portion of the increased local cost share will be funded by \$16.1 million in Federal credits earned by Natomas property owners through assessments on their property that paid for levee improvements carried out as part of SAFCA's North Area Local Project in the 1990's. These improvements included raising and strengthening the lower 4.9 miles of the NEMDC west levee, constructing a stormwater pumping facility in the NEMDC channel north of Dry Creek, improving the lower portion of the NEMDC east levee and the levees east of the Natomas Basin along lower Dry/Robla and Arcade Creeks, and making minor improvements to the NCC south levee and the PGCC west levee. Congress authorized these improvements in 1993. The authorizing legislation specifically provided for construction of the improvements by non-federal interests in exchange for reimbursement or crediting of expenditures in excess of the non-federal share of the project cost. In response to this legislation, SAFCA initiated the North Area Local Project and funded the authorized project improvements in part with bonds secured by local property owner assessments and in part with Federal reimbursements. The local assessments were provided by the North Area Local Project Capital Assessment District No. 2 ("District No. 2") which was created in 1995. The initial Federal reimbursements were received in 1999.

When the CCAD was created in April 2007, the outstanding bonded indebtedness of District No. 2 was included in the CCAD financing plan and District No. 2 was terminated. Later in 2007, Congress authorized the Corps to use any outstanding Federal credits owed to SAFCA in connection with the North Area Local Project to cover the local share of the cost of any of the federally authorized projects being implemented by the Corps along the American River including the Joint Federal Project at Folsom Dam. Three years later, SAFCA succeeded in demonstrating to the Corps that at least an additional \$16.1 million in credits was owed to SAFCA for North Area Local Project improvements. The Corps agreed that these credits could be used to offset SAFCA's contribution to the Joint Federal Project.

The initial contract for the Joint Federal Project was awarded in September 2010. The amount of the contract was substantially less than the Government estimate. Since Congress had provided the Corps with appropriations based on this Government estimate, the Corps had more funding than it needed to pay the Federal share of the cost of the awarded contract. Rather than return these excess funds to the Treasury, the Corps used \$16.1 million of the excess to cover SAFCA's share of the cost of the work. This action redeemed SAFCA's North Area Local Project credits and allowed \$16.1 million in CCAD 2008 bond funds to be redirected for use in paying a portion of SAFCA's increased share of the cost of the Natomas Project.

4.3 OTHER LOCAL CONTRIBUTIONS

A small portion of the increased local cost share will be funded by a \$1.0 million contribution from the Sacramento County Airport System. As part of the implementation plan for the Project, SAFCA entered into a comprehensive agreement with the County regarding the use of County property affected by the project. One of the elements of the agreement calls for SAFCA to decommission an existing irrigation/drainage ditch that runs through the Airport Operation Area posing a potential wildlife and aviation hazard. SAFCA's construction of the new Giant Garter Snake/Drainage Canal described in Section 2.0 will make it possible for the County to abandon the ditch and relocate its irrigation and drainage functions to SAFCA's canal. In exchange, the County has agreed to fund a portion of the cost of the Giant Garter Snake/Drainage Canal amounting to \$1.0 million.

4.4 **PROPERTY OWNER ASSESSMENTS**

The remaining \$37.3 million of the increased local cost share is sought to be funded by special benefit assessments paid by property owners in the Natomas Basin through the creation of the NBLAD. As in the case of the CCAD, these assessments will be apportioned among these property owners in accordance with a special benefit assessment formula that is based on land use categories (residential, commercial, industrial, public, etc.), parcel size, square footage of any structures on the property, and relative depth of flooding. This formula and its application to the Natomas Basin are outlined in Section 5.0.

4.5 CREDITS FOR EARLY IMPLEMENTATION OF THE NLIP

Existing Federal cost sharing guidelines for flood control projects allow non-federal sponsors to accelerate flood risk reduction efforts by initiating projects in advance of Federal authorization using non-federal funds. The guidelines provide for crediting and/or reimbursement of such non-federal expenditures if they are reviewed in advance by the Secretary of the Army and a determination is made that there is likely to be a Federal interest in participating in the non-federal risk reduction effort. Such participation is contingent on completion of a Federal feasibility study and authorization of Federal cost-sharing by Congress.

In reliance on these guidelines, the CCAD Engineer's Report assumed that SAFCA and the State would implement substantial portions of the Natomas Project in advance of Federal authorization of the Project. The CCAD Engineer's Report assumed that this early implementation effort would occur over a four-year period ending in 2010 and involve non-federal contributions totaling \$260.0 million, or \$115.0 million more than the total non-federal share of the cost of the Project. It was anticipated that these excess contributions would accelerate Project construction and create \$115.0 in Federal credits that could be used to offset the non-federal share of the cost of CCAD levee improvements along the American and Sacramento Rivers outside the Natomas Basin. Based on State cost sharing requirements, it was anticipated that \$34.5 million of these credits would be allocable to SAFCA. In the analysis of project costs and benefits presented in the CCAD Engineer's Report, this \$34.5 million was treated as an advance from the CCAD to the Natomas Project that would be reimbursed in the form of the Federal credits.

Notwithstanding the cost adjustments associated with the redesigned Project, this anticipation of an early implementation effort leading to Federal credits for use outside the Basin remains an integral feature of the updated Project financing plan. It is now anticipated that the early implementation effort will extend over five years ending in 2011 and will involve a total nonfederal contribution of \$355.0 million. This effort is expected to generate \$86.7 million in Federal credits that could be used to offset the non-federal share of the cost of other federally authorized projects. \$26.0 million of these Federal credits will be allocable to SAFCA. Consistent with the CCAD Engineer's Report, these funds are being treated as an advance from the CCAD to the Natomas Project that will be reimbursed through the use of the Federal credits to cover SAFCA's share of CCAD improvement projects outside the Basin when they are received. Table 4-1 identifies the Federal credits expected to be generated by the redesigned Project and compares these credits to those anticipated in the CCAD Engineer's Report. Note that the estimate in the CCAD Engineer's Report assumed that the 5 percent cash contribution would be considered satisfied by non-federal cash contributions to other levee improvement projects outside of Natomas. It is now assumed that this is not likely to be the case going forward.

Table 4-1: Comparison of Excess Credits						
	CCAD Engineer's Report Redesigned Projec				roject	
	SAFCA	STATE	TOTAL	SAFCA	STATE	TOTAL
Early Implementation Project	78.0	182.0	260.0	105.3	245.7	351.0
5 Percent Cash	0.0	0.0	0.0	11.6	27.1	38.7
Creditable Project Expenditures (sum of above)	78.0	182.0	260.0	116.9	272.8	389.7
Less Total Cost-Sharing Obligation	(43.5)	(101.4)	(144.9)	(90.9)	(212.1)	(303.0)
Excess Expenditures	34.5	81.6	115.1	26.0	60.7	86.7
Federal Credits	34.5	81.6	115.1	26.0	60.7	86.7

4.6 USE OF AVAILABLE CCAD BOND FUNDS

In order to support the early implementation effort in Natomas and in anticipation of the local funding needed to support authorized federal projects outside the Natomas Basin, SAFCA issued CCAD bonds in 2007 and 2008 to refinance outstanding North Area Local Project debt obligations and provide approximately \$125.0 million in cash for CCAD project construction. Because of unresolved levee vegetation issues outside of Natomas and SAFCA's success in using North Area Local Project credits to fund SAFCA's share of the Joint Federal Project construction contract awarded by the Corps in 2010, some of these 2007 and 2008 bond funds are temporarily available to fund SAFCA's share of the Project, including Project Additions. Thus, the updated financing plan for the Project anticipates a total SAFCA expenditure of \$123.9 million.

New bond funds are not expected to be needed for projects outside Natomas until 2013 or 2014 when the next major construction contract for the Joint Federal Project is expected to be awarded and levee vegetation issues are expected to be resolved. This delay should allow collection of the new assessments approved in connection with the NBLAD to be deferred until 2013. These

assessments will be used to secure the issuance of 40-year bonds that will make \$37.3 million available to repay the 2007 and 2008 bond funds so they can be used to support the Joint Federal Project and/or other federally authorized projects outside Natomas for which they were originally intended or, if federal and state monies are able to make that repayment, the bonds would be used to pay directly for the Natomas Project Additions. SAFCA estimates that the cost of issuing these bonds and providing a reserve fund to support their payment will add approximately \$3.3 million to the amount to be funded, bringing the total amount to be covered by the new assessment to \$40.6 million.

Table 4-2 displays the elements of the new financing plan for the Project. These are the Engineer's and SAFCA's best estimates at this time and, as with the CCAD, things could, and probably will, change in the future in ways not now contemplated.

Table 4-2: Financing Plan				
SAFCA's Share of the Cost of the Redesigned Proje	ect (\$ Million)			
Project Costs				
Early Implementation Project	105.3			
5 Percent Cash Contribution	11.6			
Long-Term Management Endowment	7.0			
Financing Costs (2013 Bonds)	3.3			
TOTAL	<u>127.2</u>			
Revenues				
CCAD Assessments	43.5			
North Area Local Project Credits	16.1			
Sacramento County Airport System Contribution	1.0			
NBLAD Assessments	40.6			
Redesigned Project Credits 2				
TOTAL	127.2			

5.0 ASSESSMENT METHODOLOGY

5.1 GENERAL

A governmental agency may fund public improvements by forming a special benefit assessment district and levying an assessment on the properties that will receive a special benefit from the improvements and SAFCA may do so under its enabling legislation, Chapter 510 of the California Statutes of 1990. A special benefit is a particular and distinct benefit over and above the general benefits conferred on real property located in the district or to the public at large. The cost of the improvements must be apportioned among the properties being assessed based on the proportionate special benefit these properties will receive. The governmental agency must conduct a mail protest balloting procedure on the issue of whether to form the assessment district, and the ballots submitted in opposition to the assessment at the conclusion of the balloting period must not exceed the ballots submitted in favor of the assessment, weighted according to the proportional financial obligation of the affected property.

In this instance, the properties within the proposed NBLAD will receive a special flood protection benefit in the form of a substantial reduction in expected flood damages. For a relatively wide range of flood events, these properties will escape all of the damage to structures, the contents of structures and the land comprising the property that they could have otherwise suffered if the project were not constructed.

In addition to this special benefit, the flood control improvements funded by the NBLAD will provide incidental benefits throughout the Sacramento metropolitan area. Such incidental or general benefits, which are not particular to any property, will include: the avoidance of flood damages to transportation infrastructure, places of employment, shopping centers and other retail services; in a major flood, streets and roads become impassable, preventing or at least disrupting the normal flow of traffic; employees are unable to go to work if their places of employment are flooded; emergency services are diverted to provide assistance in the flooded areas, potentially reducing or delaying such services in the non-flooded areas of the community. With the implementation of flood control improvements, the regional employment base will be protected from short-term disruption and potential long-term relocation due to severe flooding. These incidental benefits extend to properties and persons throughout the region and not just within the NBLAD boundaries, but are difficult to quantify and are in the nature of the benefits that all public improvements provide.

The special flood damage reduction benefit provided by these flood control improvements will vary based on the size and use of the affected structures, the relative size of the affected property, and the location of the affected property within the Natomas Basin. The sections that follow describe in detail the methodology that will be used to calculate these new assessments.

5.2 FLOOD DAMAGE REDUCTION BENEFIT

The special flood damage reduction benefit that will be provided to all of the properties in the NBLAD is based on avoidance of damage to structures, to the contents of the structures, and to land.

5.2.1 <u>Structure and Content Damage</u>

The USACE has defined potential flood damages to structures and contents by land use category:

- Industrial loss and destruction of industrial properties, including fixtures, equipment, inventory, and structure.
- Commercial structure value and content value including equipment and furniture, supplies, merchandise, and other items used in the conduct of business.
- Residential physical damages to dwelling units (single-family, multi-family, and mobile homes) and to residential contents including household items and personal property.

To reflect relative differences in the exposure of structures and their contents to flood-related damages, a structure and content damage factor has been calculated based on the following:

• Relative structure values for residential, commercial, industrial, public and agricultural structures were derived using the Corps' values for damageable property based on data developed in connection with the Corps' PACR² and building square footage for structures within the Natomas Basin. These values represent gross averages for the different land uses based on the Corps' estimates for structure replacement costs. They do not represent assessed value or current market value for any individual structure. Relative structure values in Table 5-1 are used in the assessment methodology to reflect the relative value relationships between land use categories.

Table 5-1: Relative Structure Value				
Land Use	Relative Structure Value (\$/SF)			
Single-Family Residential	71			
Multi-Family Residential	67			
Commercial	77			
Industrial	48			
Public	85			
Agricultural	22			

• Relative flood depths for a 100-year event were established by dividing the NBLAD into three depth zones (0 to 5 feet, 5 to 10 feet, and 10 feet or greater), as shown in Figure 5-1 for the Natomas Basin floodplain. These flood depths were derived from maps, flood elevation data, flood depths and ground elevation data developed previously by the California Department of Water Resources, FEMA, Corps and United States Geological Survey (USGS). The shallow flood depth zone (0 to 5 feet) was assigned to areas outside the 100-year floodplain but within the 200-year floodplain.

² US Army Corps of Engineers, *Post-Authorization Change Report (PACR), American River Watershed, Common Features Project, Natomas Basin, Sacramento and Sutter Counties, California: Appendix H - Economics, Sacramento District, July 2010.*



Figure 5-1: Natomas Basin Flood Depth Zones

The relationship between depth of flooding and damages to structure and contents was calculated for each land use category (residential, commercial, industrial, public and agricultural) and flood depth zone in the NBLAD using the depth-damage curves established for the Corps PACR. Separate curves were used for one-story and two-story residential structures and contents based on depth-percent damage curves developed by the Corps Institute for Water Resources and presented in Economic Guidance Memorandum (EGM) 04-01, Generic Depth-Damage Relationships for Residential Structures. These were used on both single-family and multi-family residential structures. The non-residential (commercial, industrial, public and agricultural) structure depth-percent damage curves were based on the May 1997 Final Report, Depth Damage Relationships in Support of Morganza to the Gulf, Louisiana Feasibility Study, USACE, New Orleans District. The Morganza Study structure curves are appropriate for the Natomas Basin, where inundation depths are deep and flooding durations are long (greater than three days). The PACR used 2007 non-residential content depth-damage curves developed for 22 land use categories. These curves were developed specifically for building types in the Sacramento Metropolitan area. The ratio of damageable content value to damageable structure value for non-residential categories was calculated from data in the PACR and applied to the content depth-percent damage curves described above. This allowed the structure and content depth-percent damage curves to be combined to reflect total damages to structure and contents.

The resulting damages to structure and contents, expressed as a percent of the structure value, are shown in Table 5-2.

Table 5-2: Percent Damage to Structure and Contents						
Percent Damage To Structure and Contents Expressed as A Percent ³ of Structure Value						
	Flood Depth Zones					
Land Use	0 to 5 ft	5 to 10 ft	Greater than 10 ft			
Residential One Story	56%	100%	119%			
Residential Two Story ⁴	38%	74%	99%			
Commercial	72%	88%	118%			
Industrial	75%	97%	127%			
Public	90%	106%	136%			
Agricultural	133%	160%	190%			

Flood damages to structures and their contents were calculated for each property in the NBLAD using the actual square footage for the first and second stories of residential structures, the first

³ Because percentage values represent damages to <u>both</u> structure and contents, they may exceed 100% of structure value.

⁴ Percent damages for condominium units on the second floor or higher are 24%, 47% and 99% for 0 to 5 ft, 5 to 10 ft and greater than 10 ft flood depth zones, respectively. See Section 5-6, Special Procedures for Condominiums.

story of non-residential (commercial, industrial, public and agricultural) structures, and appropriate structure value and depth-percent damage relationships for the particular land use.

For example, the relative structure and contents damages of a one story single-family residential structure with a square footage of 1,200 square feet (sf) located in flood depth zone 1 (0 to 5 ft) would be calculated as follows: 71/sf x 1200 sf x 56% = 47,712

5.2.2 Damage to Land

There are a number of factors that indicate damage to both vacant and improved land due to flooding. These include, but are not limited to, increased cost of development, the inability to secure financing for urban development projects, increased cost of flood insurance, changes in highest and best land use and deterioration of land values. Based on a review by a certified real estate appraiser, all parcels in the NBLAD would be subject to a ten-percent land damage factor. This is considered a conservatively low estimate of the assumed land damages that would occur in recognition that the affected parcels could be inundated by a major flood event for a long duration.

As part of SAFCA's 1990 Operation and Maintenance Assessment District No. 1 (District 1) formation process, all properties were assigned a land value based on land use, geographic location, parcel size and zoning. These base value estimates considered land alone, exclusive of any building improvements. The values derived are not assessed value or market value for any individual parcel of land. Rather they are used for the value relationships between various land use classifications. Details of the valuation methodology utilized in District 1 are provided in Appendix A.

For the NBLAD, a weighted average land value was calculated for all parcels within the NBLAD boundary with the same land use code based on the County of Sacramento Assessor's land use codes (Appendix B). This calculation relied on the land values previously derived in connection with District 1. For example, previously derived land values for approximately 26,000 parcels classified as single-family residential were summed and then divided by the total area of all such parcels. The result is a single land use value per acre for the single-family residential land use category. Values for the other land use categories were similarly derived. The resulting relative land use values were multiplied by the ten-percent land damage factor to define the <u>relative</u> land damage values shown in Table 5-3.

The amount of flood damages to land for a particular property is calculated using the actual parcel acreage and the appropriate relative land damage value. For example, the flood damage benefit to land for a single-family residential property with a parcel area of 0.17 acres would be calculated as follows: $16,600/acre \times 0.17$ acres = 2,822

Table 5-3: Relative Land Damage				
Land Use	Relative Land Damage (\$/Acre)			
Single-Family Residential	16,600			
Multi-Family Residential	16,600			
Commercial	24,100			
Industrial	14,300			
Public	6,400			
Vacant Residential	8,400			
Vacant Commercial	8,400			
Vacant Industrial	8,400			
Agricultural	800			

5.2.3 <u>Total Relative Flood Damage Reduction Benefit</u>

The total <u>relative</u> flood damage reduction benefit for each parcel in the NBLAD is the sum of the structure and content damages and the land damages associated with that parcel in the event of a catastrophic flood. For example, the single-family residential property used in the above example calculations would have a total flood damage reduction benefit of 47,712 + 2,822 = 50,534.

5.3 DISTRICT BOUNDARY

The NBLAD would fund the local share of the cost of the Project Additions needed to provide "200-year" protection along the perimeter levees of the Natomas Basin. Accordingly, the NBLAD would encompass all properties within the Natomas Basin. This reflects SAFCA's best judgment, based on expert advice about the geographic extent of the area of inundation that would be created by an uncontrolled "200-year" flood, assuming a variety of levee failure locations around the Natomas Basin. Approximately 32,400 parcels are within the NBLAD boundary, of which approximately 26,600 parcels are single-family residential. A map showing the boundaries of the proposed NBLAD is provided in Appendix F.

5.4 ASSESSMENT SPREAD

The amount of the annual assessments collected from NBLAD is determined by what is needed to be sufficient to cover the local share of the cost of the Project Additions needed to protect the Natomas Basin. These costs were described in Sections 3 and 4 and presented in Table 4-2. The assessment rate is calculated by dividing the amount of annual revenue required to support the

cost of NBLAD Project Additions, \$40.65 million (the annual amount being approximately \$2.7 million), by the total <u>relative</u> flood damage reduction benefits for all parcels within the NBLAD.

The assessment rate for NBLAD is 0.0004886 dollars of annual assessment per dollar of relative flood damage reduction benefit. The annual assessment for each parcel is computed by multiplying that parcel's total relative flood damage reduction benefit by the assessment rate.

The details of applying the assessment rate to calculate an individual parcel's assessment are illustrated in Appendix C. The formula used to calculate assessments for all parcels can be expressed in a simplified formula as follows:

[(Building Rate)(Building Square Footage)] + [(Parcel Rate)(Parcel Acreage)] = Annual Assessment

- Building Rate is a function of Land Use and Flood Depth Zone
- Parcel Rate is a function of Land Use
- Square Footage for the first and second stories of all residential structures and for the first story of all non-residential structures was determined for each improved parcel in the NBLAD using data available from the County Assessor's records or other sources
- Parcel Acreage was obtained from the County Assessor's records
- Land Use categories were assigned to each parcel based on the County Assessor's Land Use Codes (Appendix B) and the assignments provided in Appendix D. The exceptions were parcels in the Natomas Basin outside the developed or developing area that are zoned for agricultural use but have a vacant residential County Assessor's Land Use Code. Such parcels were classified as agricultural based on zoning designation to more correctly reflect the current use of the land and associated relative flood damage reduction benefit.
- Flood Depth Zones are as defined in Figure 5-1
- Table 5-4 contains the Building Rate and Parcel Rate multipliers for the various Land Use categories and Flood Depth Zones. The use of Table 5-4 is demonstrated in the example assessment calculations below.

5.5 EXAMPLE ASSESSMENT CALCULATIONS

Using the assessment formula, Table 5-4 and the steps listed below, an individual parcel's annual assessment for either a current land use or a potential future land use can be conveniently calculated.

- Step 1 determine the appropriate Land Use category for the property
- Step 2 using Figure 5-1, determine the Flood Depth Zone for the property
- Step 3 using Table 5-4, determine the appropriate Parcel Rate and Building Rate multipliers.
- Step 4 insert the actual parcel acreage and appropriate building square footage into the assessment formula and calculate the assessment

The following examples illustrate such calculations.

Example 1

Assume a one story single-family residential property located in the NBLAD, Flood Depth Zone 1, parcel size is 0.17 acres and building square footage is 1,200 square feet.

From Table 5-4, Parcel Rate = 8.110249 and Building Rate = 0.01942551. The annual assessment is calculated as:

(0.01942551 x 1,200 sf) + (8.110249 x 0.17 ac) = \$25

Example 2

Assume a two story single-family residential property located in NBLAD, Flood Depth Zone 3, parcel size is 0.20 acres and building square footage is 2,200 square feet.

From Table 5-4, Parcel Rate = 8.110249 and Building Rate = 0.03434153. The assessment is calculated as:

$$(0.03434153 \text{ x } 2,200 \text{ sf}) + (8.110249 \text{ x } 0.20 \text{ ac}) = \$77$$

Example 3

Assume a commercial property located in NBLAD, Flood Depth Zone 2, parcel size is 0.8 acres and building first-floor square footage is 6,200 square feet.

From Table 5-4, Parcel Rate = 11.774518 and Building Rate = 0.03310545. The assessment is calculated as:

$$(0.03310545 \text{ x } 6,200 \text{ sf}) + (11.774518 \text{ x } 0.8 \text{ ac}) = \$215$$

Example 4

Assume an industrial property located in NBLAD, Flood Depth Zone 1, parcel size is 1.75 acres and building first floor square footage is 14,000 square feet.

From Table 5-4, Parcel Rate = 6.986540 and Building Rate = 0.01758849. The assessment is calculated as:

(0.01758849 x 14,000 sf) + (6.986540 x 1.75 ac) = \$258

Table 5-4: Building and Parcel Rates by Land Use					
		NBLAD			
Flood Depth		0' to 5'	5' to 10'	GT 10'	
	Flood Depth Zone	1	2	3	
Land Use	Rate				
Single-Family Residential	Parcel (per Acre) (2)	8.110249	8.110249	8.110249	
One Story (1) (3)	Building (per Building Sq Ft)	0.01942551	0.03468841	0.04127921	
Single-Family Residential	Parcel (per Acre) (2)	8.110249	8.110249	8.110249	
Two Story (3)	Building (per Building Sq Ft)	0.01318160	0.02566943	0.03434153	
Condominiums second	Parcel (per Acre)	8.110249	8.110249	8.110249	
floor level or higher	Building (per Unit Sq Ft)	0.00832522	0.01630355	0.03434153	
Multi-Family Residential	Parcel (per Acre)	8.110249	8.110249	8.110249	
One Story (3)	Building (per Building Sq Ft)	0.01833112	0.03273414	0.03895362	
Multi-Family Residential	Parcel (per Acre)	8.110249	8.110249	8.110249	
Two Story (3)	Building (per Building Sq Ft)	0.01243897	0.02422326	0.03240679	
Commercial	Parcel (per Acre)	11.774518	11.774518	11.774518	
	Building (per FF Sq Ft)	0.02708628	0.03310545	0.04439140	
Industrial	Parcel (per Acre)	6.986540	6.986540	6.986540	
	Building (per FF Sq Ft)	0.01758849	0.02274778	0.02978318	
Vacant Residential	Parcel (per Acre)	4.103981	4.103981	4.103981	
	Building (per FF Sq Ft)	0.00000000	0.00000000	0.00000000	
Vacant Commercial	Parcel (per Acre)	4.103981	4.103981	4.103981	
	Building (per FF Sq Ft)	0.00000000	0.00000000	0.00000000	
Vacant Industrial	Parcel (per Acre)	4.103981	4.103981	4.103981	
	Building (per FF Sq Ft)	0.00000000	0.00000000	0.00000000	
Agricultural (4)	Parcel (per Acre)	0.390855	0.390855	0.390855	
	Building (per FF Sq Ft)	0.01429553	0.01719764	0.02042219	

(1) Includes condominiums on first floor level

(2) For large lot Single Family Residential parcels (parcel area greater than 0.5 acres) multiply area greater than 0.5 acre by Agricultural Parcel rate.

(3) Total Building SF not including garage area

(4) For Agricultural-Residential parcels, multiply the residential structure square footage by the appropriate Single-Family Residential building rate, land acreage by the Agricultural parcel rate, and agricultural structure square footage by the Agricultural building rate.
5.6 SPECIAL PROCEDURES

<u>Condominiums</u>. Condominium unit owners typically have an undivided interest in the structure "shell." Single-story condominium units located on the first floor were assessed for damages to structure and contents at the same rate as single family residential, single story units. Multi-story condominium units are considered to be located on the lowest floor of living space they occupy. Multi-story condominium units located on the first floor were assessed for damage to structure and contents at the same rate as single-family residential, two-story units. Multi-story condominium units on the second floor in flood depth zones 0 to 5 feet and 5 to 10 feet were assessed for structure damages only. In the greater than 10 feet flood depth zone, Multi-story condominium units on the second floor were assessed for structure and content damages. There currently are no condominiums in the NBLAD located on the third or higher floors. If such units were to be built, they would be assessed for structure damages only. The land damage benefit is allocated to the common parcel owned by the condominium's homeowner association.

<u>Public Parcels</u>. Consistent with the requirements of Proposition 218, all publicly owned parcels are assessed proportionately to the special flood damage reduction benefit they receive from the improvements. That is, public parcels are treated the same as privately owned parcels for assessment calculation purposes. As shown in Appendix D, County Assessor's land use codes were used to classify privately owned properties into land use categories (e.g., single-family residential, multi-family residential, commercial, industrial, corresponding vacant categories, and agricultural). For public parcels, however, the Assessor's land use codes only designate the type of public ownership. Therefore, to calculate assessments for these parcels, a land use category was assigned to each public parcel based on its current use.

<u>Minimum Assessments</u>. The minimum annual assessment will be \$1.50 to reflect SAFCA's cost to administer the Assessment District roll. All annual assessments calculated to be less than \$1.50 will be raised to the \$1.50 minimum.

<u>Updating Assessment Rolls</u>. Recalculating assessments on an annual basis would accommodate changes in land use categories in the NBLAD over time. These changes can result from development activity such as recordation of subdivision maps, zoning changes, conditional use permits, and lot splits. An increase in building square footage, placement of a structure on an undeveloped parcel, or other such changes would trigger a recalculation of the assessment on the underlying property.

It is recognized that when dealing with the thousands of parcels that will be part of the NBLAD, using information from the Sacramento County and Sutter County Assessor's Office as the primary source of data for individual parcel characteristics may lead to some errors and some circumstances that do not precisely fit the intent of the new district. Where such circumstances are discovered, either by the persons administering the NBLAD or by the owners of the properties affected, the Executive Director of SAFCA (or his designee) shall review such circumstances. The Executive Director (or his designee) shall determine if corrections or adjustments are appropriate, any such corrections or adjustments being consistent with the concept, intent and parameters of the NBLAD as set forth herein. An affected property owner who disagrees with the Executive Director's determination may appeal the determination to the SAFCA Board of Directors. Unless such proposed changes are appealed to the SAFCA Board of Directors' determination will be final.

5.7 AVERAGE ASSESSMENTS

Table 5-5 presents a summary of the average annual single family residential one-story and twostory (SFR1 and SFR2) parcel assessments for the entire NBLAD. Table 5-5 also provides the average annual commercial assessments per 1000 square feet (SF) of building area and the average annual industrial assessments per 1,000 SF of building area.

	Table 5-5:	Average Assess	nents
Land Use Category	No. of Parcels	Average Assessment	Average Assessment per 1000 SF of Building Area
SFR1	13,542	\$56	
SFR2	12,568	\$60	
Commercial	444		\$41
Industrial	185		\$26

6.0 CONCLUSIONS

The portion of the cost of the Project Additions actually being assessed in the NBLAD is only 11.1% of the total cost of the Project Additions, and the special benefit conferred by the Project Additions on the properties within NBLAD, compared to the hard-to-quantify general benefit, is estimated to be well in excess of 11.1% of the total cost of the Project Additions.

Therefore, it is concluded that the proposed new assessments do not exceed the special benefit received by the properties assessed over and above the benefits conferred on the public at large. It is also concluded that the amount of each assessment is proportional to, and no greater than, the special benefits conferred on each property assessed.

Robert J Cermak

By: Robert J. Cermak, P.E. Parsons Brinckerhoff



7.0 SCHEDULE

The schedule to carry out the proposed formation of the NBLAD is as follows:

Date	Event
February 17, 2011	Engineer's Report filed and delivered to Board.
March 2, 2011	 Board Meeting/Public Hearing on the NBLAD: Board Action: Adopt Resolution of Intention to undertake a special capital assessment proceeding for the formation of the NBLAD. Board Action: Adopt resolution tentatively approving the Engineer's Report and fixing the date, time and place for a public hearing to consider formation of the NBLAD.
March 14, 2011	Clerk of the Board mails notice of hearing and assessment district ballots.
March 16 to 31, 2011	SAFCA presents Community Workshops on the NBLAD.
April 28, 2011	 Board Meeting/Public Hearing on formation of the NBLAD: Open public hearing: Opportunity for property owners to cast ballot or change ballot, Consider any protests lodged against the NBLAD, Determine whether any modifications need to be made to Engineer's Report, and Close public hearing. Direct Clerk of Board to tabulate the assessment ballots. Adjourn Board meeting to allow the Clerk time to tabulate the ballots, including any submitted at the hearing.
April 29, 2011	Reconvene Board meeting: Board Action: Receive and certify ballot tabulation. Assuming no majority protest: Board Action: Adopt Resolution Confirming Engineer's Report (including any modifications to the report), ordering formation of the NBLAD, and authorizing the levy and collection of assessments and the sale of bonds as necessary to implement the project.

8.0 REFERENCES

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APPENDIX A: BASE LAND VALUE APPRAISAL REPORT (O&M ASSESSMENT DISTRICT)

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Base Land Value Appraisal Report SAFCA Assessment District No. 1

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ADDENDA

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. •---- Exhibit A: Valuation Codes <u>Exhibit B: Gaeramento County Use Gode</u> <u>Exhibit C: Sutter County Use Code</u>

BASE LAND VALUE APPRAISAL REPORT SAFCA ASSESSMENT DISTRICT NO. 1

PURPOSE

To provide appraisal services to establish base land values for various land use categories within SAFCA Assessment District No. l (District) area of influence in Sacramento County and a portion of South Sutter County.

This report and recommendation of base land values specifically addresses the following points:

- All parcels within the District have been classified and valued for use in the benefit assessment process by county assessor's parcel number.
- 2. The respective base values will bear a relationship to the property area, usage and zoning as reflected in the classification system.
- 3. The valuation methodology will apply equally to all properties.
- 4. The benefit relationship as it applies to individual parcels will be administered by the District and is not addressed in this report.
- 5. The base value estimates consider land alone, exclusive of any building improvements.
- 6. The base value recommendations for each land area classification are not representative of fair market value.

LAND APPRAISAL SERVICES

General

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The purpose of this report is to provide valuation data relative to the lands within the District that can be utilized by the Assessment Engineer and reviewed by the Valuation Assessment Commissioners.

The work required to prepare the requested information was completed in the following sequence:

Scope of Work

- Task 1 All Impacted Parcels Have Been Identified
- Task 2 Locations of Impacted Parcels Have Been Determined
- Task 3 The Land Use Codes Established by the Respective County Assessor's Office Have Been Analyzed by Location and Number of Parcels
- Task 4 Base Land Values by Land Use and Use Code Categories Have Been Established By Market Data Analysis
- Task 5 A Land Value Report Has Been Prepared and Transmitted to the Assessment Engineer
- Task 6 Appraisal Staff of Dutra Appraisal Service Has and Will Continue to Attend Meetings
- Task 7 Dutra Appraisal Service Staff Will Plan To Advise and Review Issues Related to Disputed Values

Task 1 - Listing of Impacted Parcels

The Assessment Engineer has provided the appraiser a current listing of all parcels that are being impacted by the formation of the proposed assessment District. This listing included the following information:

- A. Parcel Number in accordance with the respective County Tax Assessor offices.
- B. Parcel land use code, parcel size and zoning. The land use categories being used are five in number as follows:

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- 1. Agricultural
- 2. Commercial
- 3. Industrial
- 4. Residential
- 5. Miscellaneous

C. Size of parcel in acreage or by square footage for all parcels.

Task 2 - Locations of Impacted Parcels

The Assessment Engineer has provided locations of all parcels. Said identification was by assessor parcel number and County Assessor's parcel maps.

Task 3 - Development of General Land and Use Code Value Categories

The appraiser has reviewed the existing land use and use code categories. This review included a study of market transactions for the 30-month period of July 1988 to December 1990. The resulting analysis indicated the following land use categories:

Number	Classification	Sub-Classification
1	Agricultural	A 1-6
2	Commercial	C 1-10
3	Industrial	I 1-3
4	Residential	R O-11
5	Miscellaneous	Code based on predominant use of above classifications

The general use category and sub classification value system has been applied on a per-square-foot-of-land-area basis.

Task 4 - Development of Land Values by Land Use Classification

The appraiser/consultant has employed recognized real estate appraisal techniques to: -

A. Develop a consistent and logical land use classification system with application to the specific task at hand.

- B. The principal basis of said classification system is a reflection of the market activity on lands within the confines of the District.
- C. The city and county use code were adhered to in the District valuation.
- D. An analysis of property size, particularly those parcels less than one acre, was conducted to ascertain proper and meaningful value estimates. All properties were valued on the basis of total square feet as determined by the County Assessor's Office or the Assessment Engineer.
- E. Sales data within the District was collected and analyzed. Said data determined the assigned value for each land classification.
- F. Upon completion of this sales analysis, unit values were assigned to each land classification. Value codes were based upon a per-square-foot basis. It was the appraiser's goal to insure a consistent and uniform application of the unit values within and between each class and category of property.

Task 5 - Prepare and Issue Reports

The appraiser has prepared and transmitted a valuation report that sets forth the methodology used in arriving at the selected land values by land use category. Said document is identified as the Base Land Value Appraisal Report. This report includes a "Property Inventory Listing." This listing is arranged in parcel number order. the significant entries include the following:

> Parcel Number Parcel Size Classification Use Code, Value Code Property Value

Task 6 - Attend Meetings/Coordination

To maintain a consistency of action with other participants in the project, the appraiser has and will continue to attend the working committee meetings and most public meetings to be conducted in accordance with the District Assessment Requirements.

Task 7 - Advise and Review Issues Related to Disputed Values

The appraiser will be available to advise and review problems that develop due to errors of Area, Mapping, and Valuation issues. This service will apply to the current "Property Inventory Listing."

VALUATION METHODOLOGY

To facilitate and simplify the process of valuing the property encompassed within the District and to provide the assessment data, three significant property characteristics were analyzed to develop a consistent valuation approach in an interrelated pattern as follows:

l. Use Code

The use code as determined by the Sacramento and Sutter County Assessors' office was used in the valuation process. In the instance where the use code differs from the zoning, as of March 1, 1990, the appraiser relied most heavily upon the use code classification.

2. Location

Land values are greatly influenced by the parcel location within the District. This was taken into account in determining the base land values.

3. Parcel Size

The parcel size in conjunction with the value code determined the base land value used in the valuation process.

The value sought in this analysis is based upon commonly accepted principles of real estate appraising in deriving fee simple market value. The exception of this principle is that the value derived is not market value for any one parcel of land being valued. The primary purpose of this phase is the establishment of value relationships between the various property classifications.

This value relationship is applicable to all of the properties within the District, i.e., approximately 303,600 parcels of land.

The estimation of a property's value involves a systematic process in which the appraisal problem is defined and the data required is gathered, analyzed and interpreted into an estimate of value. Traditionally, three methods of valuation have been used in appraising: the cost, market and income approaches.

However, due to the nature and purpose of the property being appraised, the cost and income approaches to value will not be utilized. This places the emphasis upon the market data approach to value. The market data approach involves the comparison of the property or class of properties to similar properties that have been recently sold or that are offered for sale. These sales are reviewed for differences such as the date of sale, location of the site, physical characteristics, density, utility of use and other factors. The comparable properties are then adjusted to formulate a value range to the property being appraised.

The final step in the valuation approach is the estimate of the final value based upon the market activity and estimated future worth of that particular class of property as determined by the sales analysis.

The value estimate indicated by this approach is then reconciled into a final value conclusion for each class of property being valued within the SAFCA District.

The valuation process is based upon a six-part procedure:

- 1. County Assessor map books, ownership list and parcel data is furnished to the appraiser by the Assessment Engineer.
- 2. Sales data for the latest thirty-month period in a book, use code and parcel number listing is analyzed by the appraisal staff. Supplementing this source of information are the sales files of Dutra Apraisal Service. Said data has been analyzed in both a field and office situation to assist the appraiser in establishing the general level of value for the area.
- 3. The appraiser has determined the appropriate value code. ... reflecting the general characteristics of the property. The representative value for this code is applied to the square footage of each parcel by the Assessment Engineer and reviewed and confirmed by the Appraiser.
- 4. At the appraiser's discretion, audits of specific properties or use code types will be conducted to test the consistency and reliability of the value findings.
- 5. Based upon the test results, the original value submission may be changed or errors discovered in the process will be corrected.
- 6. At the conclusion of the testing period, values will be finalized.

The value codes and property values are organized on a general use concept as follows:

All Agricultural Properties

	V	/alue Codes	5
A-l		\$.10/SF	\$ 5,000/Acre
A-2	—	\$.25/SF	\$10,750/Acre
A-3	-	\$.50/SF	\$21,750/Acre
A4		\$1.00/SF	\$43,500/Acre
A-5	-	\$1.50/SF	\$65,000/Acre
A-6	_	\$2.00/SF	\$87,120/Acre

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Agricultural properties are found in the northern and southern areas of the District. The lower values are for those properties most remote from urban development having marginal potential for further development.

All Commercial Properties

C-1 - \$ 2.00/SF C-2 - \$ 4.00/SF C-3 - \$ 7.00/SF C-4 - \$ 10,00/SF C-5 - \$ 15.00/SF C-6 - \$ 25.00/SF C-7 - \$ 40.00/SF C-8 - \$ 70.00/SF C-9 - \$100.00/SF C-10- \$150.00/SF

Commercial properties are distributed throughout the District. The greatest concentration is in downtown Sacramento, but there are shopping centers, commercial strips, and isolated commercially used property almost everywhere.

The lower C-1 and C-2 value codes were applied to those properties located in marginal areas, i.e., "Mom and Pop" operations in disadvantaged neighborhoods. The highest, C-8, C-9 and C-10, value codes were limited to high-density multi-story properties in downtown Sacramento. The mid-range value codes were used in the shopping centers and commercial strip areas.

All Industrial Properties

M-1 - \$1.50/SF M-2 - \$3.00/SF M-3 - \$5.00/SF

Industrial use properties are found throughout the area. The lowest values for industrial land were found in the vacant industrial areas and where the industrial complex was sparsely developed over a large site. The highest value code was used in those areas of built-up planned industrial parks and in those industrial areas in transition to commercial use.

All Residential Properties

R-0 -- \$ 1.00/SF R-1 -- \$ 2.00/SF R-2 -- \$ 3.00/SF R-3 -- \$ 4.00/SF R-4 -- \$ 5.00/SF R-5 -- \$ 6.00/SF R-6 -- \$ 7.00/SF R-7 -- \$ 8.50/SF R-8 -- \$10.00/SF R-9 -- \$12.50/SF R-10 -- \$15.00/SF R-11 -- \$25.00/SF

-6-

The lower value codes are predominate in areas of large parcel size properties or disadvantaged neighborhoods, or in areas removed from urban influences. The mid-range of value codes were scattered throughout the District and are representative of the majority of residential property. The extreme upper value codes are limited to quality condominium and planned unit developments characterized by small parcel sizes.

All Miscellaneous Properties

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The value code for miscellaneous properties is based upon the predominate uses within the location or neighborhood of the property being valued.

A percentage of the district properties is exempt from property taxes; these include but are not limited to city, county, state and federally owned and used property, school and fire district property, some religious properties and non-useable types of property. This report similarly exempts those properties. However, they are listed to maintain an accurate inventory of the properties present within the district.

A second class of properties owned by the utilities, railroads and communication companies is included within this report. These properties are listed in County Assessor parcel order with the other district parcels. However, the property valuation has been established by the California State Board of Equalization as represented on the 1990-1991 Sacramento and Sutter County Property Tax Roll.

In summary, <u>The Land Value Report</u> emphasizes a consistency of valuation theory as it applies to all of the property, subject to benefit assessments within the District. These valuations do not represent market value for any one particular parcel.

ASSUMPTIONS AND LIMITING CONDITIONS

This appraisal report and valuation contained herein are expressly subject to the following assumptions and/or conditions:

- 1. Title to the property is marketable.
- 2. No survey of the property has been made and property lines (actual or proposed) as they appear on the ground are assumed to be correct.
- 3. Data, maps and descriptive data furnished by the client or his representative are accurate and correct.
- No responsibility is assumed for matters of law or legal interpretation.
- 5. No conditions exist that are not discoverable through normal, diligent investigation, which would affect the use and value of the property.
- 6. No responsibility is assumed for building permits, zone changes, engineering or any other service or duty connected with legally utilizing the respective properties.
- 7. The appraisal has been prepared on the premise that there are no emcumbrances or other matters not of record prohibiting the utilization of the property under the governmental use code.
- 8. The estimate of value is subject to the purpose and date of appraisal outlined in the Engineer's Report.
- 9. The estimate of value is based upon information and data from sources believed reliable, correct and accurately reported.
- 10. The appraisal and report of the appraisal are to be considered in their entirety and use or dissemination of only a portion thereof without prior approval of the preparer and appropriate qualification will render them invalid.
- 11.' Except as otherwise provided, possession of this report or a copy thereof, does not carry with it the right of publication or its use by other than the client or for purposes other than those for which it was prepared.
- 12. The appraiser shall not be required to give testimony or appear in court by reason of this appraisal with reference to the project described herein unless prior arrangements have been made.

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CERTIFICATION

The staff of Dutra Appraisal Service is the originator of the parcel values as contained in the "property inventory listing." No individual site inspections were conducted other than random "field" drive-by viewing. This technique is characteristic of mass appraising.

I, the undersigned, do hereby certify that, except as otherwise noted in this appraisal report:

- 1. We have personally inspected the properties within the district which are the subject of this valuation report as in the manner noted above.
- 2. We have no personal interest or bias with respect to the subject matter of this appraisal report or the parties involved.
- 3. The professional fee for the appraisal service rendered is dependent solely upon completion of the service evidenced by delivery of this report and is in no way contengent upon the conclusion or value estimate reported.
- 4. To the best of our knowledge and belief the statement of fact contained in this appraisal report, upon which the analysis, opinions and conclusions expressed herein are based, are true and corect.
- 5. This appraisal report sets forth all of the limiting conditions (imposed by the terms of the assignment or by the undersigned) affecting the analysis, opinions and conclusions contained in this report.
- 6. This appraisal report has been made in conformity with and is subject to the requirements of the Code of Professional Ethics and Standards for Professional Conduct of the Appraisal Institute.
- 7. Appraisal Institute conducts a voluntary program of continuing education for its, designated members. SRPA's who meet the standards of this program are awarded periodic educational certification. The undersigned, Alan J. Dutra, SRA, SRPA, is currently certified.
- 8. No appraisal firm other than the undersigned prepared the analysis, conclusions and opinions concerning the property valuations set forth in the property inventory listing.

Dutra. GRPA SRA.

Date

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Land Use	Appraisal Code	Code Value (\$/Acre)
Agrícultural	Al	5,000
	AZ	10,750
	A3	21,750
	A4 -	43,500
	AS	65,000
	Ab	87,000
	Appraisal	Code Value
Land Use	Code	(\$/Square Foot)
Posidontial	PO	1 00
Residential	D1	2.00
	R1 p2	3.00
	N2 . D3	4.00
	RJ R/	5.00
	R5	6.00
	RG	7.00
	R7	8 50
	R8	10.00
	RQ	12 50
	R1O	15.00
	RII	25.00
		23:00
Commercial	Cl	2.00
	C2	4.00
	C3	7.00
	C4	10.00
	C5	15.00
	C6	25.00
	C7	40.00
	C8	70.00
	C9	100.00
	C10	150.00
Industrial	м]	1.50
	M2	3.00
	M3	5.00
		5.00

VALUATION CODES

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APPENDIX B: COUNTY OF SACRAMENTO ASSESSOR'S LAND USE CODES

Title: Land Use Codes

1. PURPOSE

To describe the procedure for assigning use codes to parcels of land in Sacramento County.

2. DEFINITION

A use code is a 6-digit alphanumeric code assigned to every parcel in the County by the Assessor's Office. This code usually describes the <u>existing use</u> of each property. If the property is vacant, or the improvements have little or no value, the use code describes the <u>anticipated use</u> based on the zoning of the property.

The term 'use code' is <u>not</u> the same as zoning. Zoning is a code which is assigned to property by a planning department rather than the Assessor's Office and describes the <u>permitted use</u> of a property, rather than the existing or anticipated use.

3. POLICY

- A. Every parcel in Sacramento County shall be assigned a use code.
- B. Use codes shall describe the actual use of improved property or the proposed use of vacant property.
- C. Use codes shall be based on the primary use of the property.
- D. Use codes on parcels in economic units (other than multi-family dwellings on more than one parcel) shall be assigned as follows:
 - 1. Use codes shall be based on the primary use of the economic unit.
 - 2. The use code of the primary parcel shall describe the actual use of the property with the last character reflecting the number of parcels in the economic unit.
 - 3. Use codes on all other parcels in the economic unit shall contain the same first and second characters as the primary parcel. These shall be followed by three zeroes and end with the number of parcels in the economic unit.
- E. Use codes shall be assigned to multi-family dwellings on more than one parcel as follows:
 - 1. The parcel with the greatest number of dwelling units shall be designated as the prime parcel.
 - 2. The use code of the prime parcel shall reflect the total number of dwelling units in the economic unit.

3. Use codes on the remaining parcels of the economic unit shall reflect a dwelling count of zero.

4. USE CODE SYSTEM

This section describes use codes and general land uses.

- A. There are six digits in each use code. The first digit (on the left) always represents the General Land Use of the parcel. The meaning of digits two through six vary depending on the type of general land use.
- B. The various types of General Land Uses are shown in the list below. For further explanation of use codes for each of the General Land uses, refer to the appropriate pages of this Manual Section.

General Land Use	Code	For further reference, see page
Residential	А	4 - 7
Retail Commercial	В	8 - 10
Office	С	10 - 11
Personal Care & Health	D	12
Church & Welfare	E	13
Recreational	F	14 - 15
Industrial	G	16 - 17
Agricultural	Н	18 - 19
Vacant	I	20 - 21
Miscellaneous	м	22
Public/Utilities	W	23 - 24

OPERATIONS MANUAL OFFICE OF THE ASSESSOR

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OPERATIONS MANU, OFFICE OF THE ASSE	AL SSOR	MANUAL SECTI Land Use Codes:	ION 13-14 RESIDENTIAL		EFFECTIVE DATE: 10/93 PAGE 4 OF 24
<u>1</u> General Land Use	2 Specific Land Use	<u>3</u> Occupancy	4 (not used)	ج Secondary Use	$rac{4}{2}$ Character of Use $^{igodom{0}{1}}$
A Residential dwelling unit	1 - Single family	A - Subdivision B - Non-subdivision C - Rural home site	0 0	Indicate any secon- dary use by using General Land Use	A - Most probable B - Under improvement C - Over improvement
· ·	7	(under 2 acres) D - Rural home site (2 to 5 acres) E - Rural home site	0 0	Codes Use 'M' for a miscellaneous	E - Unfinished H - Historical property P - Permit entered
	•	F - Condominium F - Condominium G - Planned Unit Development H - Row house J - Half-plex	0000	use '0' t	<u>Parcel Grouping</u> Indicate number of parcels in an econo- mic unit. If 10 or more parcels, use 'X'
	2 - Two family	A - 2 single family units B - Duplex	.	→ →	-
-	3 - Three family	 A - 3 single family units B - 1 single family unit, 1 duplex C - Triplex 	0 0 C	\rightarrow \rightarrow	$\rightarrow \rightarrow$
	4 - Four family	 A - 4 single family units B - 1 single family unit, 1 triplex B - 2 single family units, 1 duplex D - 2 duplexes 		$\rightarrow \rightarrow \rightarrow$	$\rightarrow \rightarrow \rightarrow -$
(continued on Page ((2	E - Fourplex		→	•

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OPERATIONS MANU OFFICE OF THE ASSE	AL ESSOR	MANUAL SE Land Use Cod	ECTION 13-14 es: RESIDENTIAL		EFFECTIVE DATE: 10/93 PAGE 5 OF 24
1 General Land Use	2 Specific Land.Use	3 Dwelling Unit Count	쇼 Dwelling Unit Count	<u>\$</u> Secondary Use or Dwelling Unit Count	$rac{4}{2}$ Character of Use $^{igodom{0}{2}}$
A Residential	D - Res Conversion	Hundred's digit	Ten's Digit	One's digit	A - Most probable
awelling unit	E - Low rise apartment (less than 4 stories) [©]	→	\rightarrow	→	 D. Gov't'substdized apt
	F - High rise apartment		→	- >	E - Unfinished
	(4 or more stories) $^{\textcircled{a}}$				P - Permit entered
	G - Court (More than 4	units.) 🕹	\rightarrow	→	OR
	H - Mobile home park				
	J - Hotel	→	→	→	<u>Parcel Grouping</u>
	K - Boarding house				Indicate number of par- cels in an economic
	L - Rooming house	→	- →	-}	unit. If 10 or morè par-
	M - Sorority or fraternity	house			
	N - Motel	→	→	→	→
	Q - Common area (condo/PUD)	÷	→	→	· ->
	R - Bed & breakfast inn				

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0 <u>n</u>	ERATIONS MANU/ FICE OF THE ASSE	AL SSOR	MANUAL SECTION 1 Land Use Codes: RESI	I3-14 DENTIAL	Ë	FECTIVE DATE: 10/93 PAGE 6 OF 24	
U O	1 eneral Land Use	2 Specific Land Use	Location & Ownership (r	<u>4</u> 1of used)	<u>5</u> Secondary Use	$rac{\delta}{C}$ Character of $Use^{\mathbb{O}}$	
<	Reside ^I ntial dwelling unit	T - Mobile home (MH)	A - MH on leased land in MH park	ο	Indicate any secon- dary use by using	A - Most probable B - Under Improvement	
			B - MH on private land in MH park: MH & land under same ownership	0	General Lana Use Codes Use 'M' for a	C - Over improvement E - Untinished H - Historical property P - Permit entered	
			C - MH on private land not in MH park: MH & land not under same ownership	0	improvement. If no secondary use,	OR NO	
			D - MH on private land not in MH park; MH & land not under same owners-hip	O	o e o o	rarce <u>r stouping</u> par-cels in an economic unit. If 10 or more par-cels, use 'X'	
			F - MH on permanent founda- tion on private land; usually MH & land under same ownership; regular APN use			-	
Θ	Use the following <u>1st:</u> E or P code	priority to determine the 2 <u>nd:</u> H code	e sixth digit of the use code: <u>3rd:</u> Parcel grouping	<u>4th:</u> A, B, or C) code		
0	Use the following <u>1st</u> : Dwelling unit	priority to determine the count <u>2nd</u> : See	e fifth digit of the use code: condary use. Indicate any seco	ndary use by usir	ig General Land Use co	odes.	
œ	Parking levels & t	oasements are <u>not</u> consi	dered stories.				
						· ·	
							· · ·
	C						

OPERATIONS	S MANU	A	MANUAL SECTION 13-14	EFFECTIVE DATE: 10/93
OFFICE OF 1	HE ASSI	ESSOR	Examples of Residential Land Use Codes	PAGE 7 OF 24
Prime Parcel Use Code	Secon Use C	idary Parcel ode	Description	
A1A00A		Single-family dwelling in a	i subdivision, the most probable use of the site.	
AIBOCA		Single-family dwelling on 1 garage. The most probab	1/2 acre not in a subdivision. Owner operates an income tax service sly use is single-family residential.	e in the converted
Aleohe		Single-family dwelling on s is under construction.	seven acres. Owner boards horses for people who live in the city. A	h new swimming pool
A1G00A	•	Single-family dwelling in a	planned unit development, the most probable use of the site.	
ADOLIA		Single-family dwelling on it	its own parcel but has common wall with dwelling on adjacent parc	cel (a halfplex).
A2B00C	1	Two family duplex, an ove	srimprovement for the neighborhood and the site.	
A4E00A		Four-family "quadplex," th	ne most probably use of the site.	
AD0042 AE	20002	Victorian mansion, former only the prime parcel is co Also note that the 6th digit	rly a single-family residence. Now converted to four efficiency ap oded with a "4" as the 5th digit; the secondary parcel is coded with t of both parcels is coded "2". Indicating that there are two parcels	partments. Note that h a '0' as the 5th digit. s in the economic unit.
AE125A		Three-story apartment hou	use with 125 units, located on one parcel, the most probably use of t	the site.
AE125X AE	X0001	Three-story apartment hou count of "125", while all th cating that there are 10 or	use with 125 units, located on 15 porcels. Only the prime parcel i he remaining parcels are coded with unit counts of "000". The 6th d r more parcels in the economic unit.	is coded with the unit digit is coded "X", indi-
AG020B		Twenty cottage-type units	: in a court, an underimprovement for the site.	
AH255X AH	XOOOF	Mobile home park with spo count of "255". The 'X" as	aces for 255 mobile homes. The use code for only the prime parcel the 6th digit indicates that there are 10 or more parcels in the econ	l is coded with the unit nomic unit.
AJ095B		Ninety-five rental units in a	a hotel, an underimprovement for the site.	
AMDOOC		A fratemity has remodeled ment for the site.	d a large home into a meeting and recreation complex for its memb	bers, an overimprove-
AN456A		A motel with 456 rentable u	units, the most probable use for the site.	
AQ000A		Common area for condon	miniums (or planned unit development).	
ATC00B		Mobile home on private la	and not in a mobile home park, an underimprovement for the site.	

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OPERATIONS MANU. OFFICE OF THE ASSE	AL SSOR	MANUAL SECTION Land Use Codes: RETAIL/C	13-14 COMMERCIA		EFFECTIVE DATE: 10/93 PAGE 8 OF 24
1 General Land Use	2 Specific Land Use	3 Occupancy (1	4 not used)	<u>ξ</u> Secondary Use	<u>é</u> Character of Use [©]
8 - Retail - Commercial	A - Small retail	A - Single tenant B - Multi-tenant C - Convenience store X - Condominium Y - Planned Unit Development	000	Indicate any secon- dary use by using General Land Use Codes	 A - Most probable B - Under improvement C - Over improvement E - Unfinished H - Historical property P - Permit entered
	B - Store/Office combo	A - Single tenant B - Multi-tenant X - Condominium Y - Planned Unit Development	000	use '0' use '0'	Parcel Grouping Indicate number of
	C - Restaurant	 A - Dining B - Cocktail lounge or bar C - Coffee shop D - Cafe E - Drive-in or fast food service F - Take-out X - Condominium Y - Planned Unit Development 	0 0 0 0	$\rightarrow \rightarrow \rightarrow \rightarrow \rightarrow$	parcels in economic unit. If 10 or more parcels, use 'X' ↓ ↓
•	D - Large retail	A - Furniture B - Market C - Discount D - Department X - Condominium Y - Pianned Unit Development	0 0 0 0	$\rightarrow \rightarrow \rightarrow$	$\rightarrow \rightarrow \rightarrow$
(continued on page	E - Shopping center 9)	A - Convenience center B - Neighborhood C - Community D - Regional X - Condominium Y - Planned Unit Development	000	$\rightarrow \rightarrow \rightarrow$	$\rightarrow \rightarrow \rightarrow$

OPERATIONS MANU OFFICE OF THE ASSE	AL issor	MANUAL SECTION Land Use Codes: RETAIL/	I 13-14 COMMERCIA		EFFECTIVE DATE: 10/93 PAGE 9 OF 24
1 General Land Use	2 Specific Land Use	3 Occupancy	4 (not used)	5 Secondary Use	<u>لا</u> Character of Use
8 - Retail - Commercial	F - Vehicle oriented	A - Service station B - Carwash	0	Indicate any secon-	A - Most probable
		C - Auto repair garage	0	General Land Use	
		E - Used car sales	0	Codes	t - Untinisnea H - Historical property
		F - Boat sales		Use 'M' for a	P - Permit entered
		G - Trailer sales/service	0	miscellaneous	
		H - Parking lot		improvement	OR
		1 - Parking structure	0	If no secondary use,	•
		K - Abandoned service statio	c	Use '0'	Parcel Grouping
		L - Mini-Iube garage	0		Indicate number of
		X - Condominium		->	parcels in an econo-
		Y - Planned Unit Developmer	at 0		mic unit. If 10 or
				→	more parcels, use 'X'
:	G - Auction yard	0	0	_	-
	H - Advertiting	C	C	→	→
)	þ	→	→
	I - Nursery	0	0		
				→	→
	Q - Common area (condo/PUD)	o	0	→	→
 Use the following 1st: E or P code 	priority to determine th 2nd: H code	he sixth digit of the use code: <u>3rd:</u> Parcel grouping	<u>4th:</u> A, B,	or C code	

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See page 10 for examples of Retail/Commercial use codes.

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OPERATION OFFICE OF	NS MANUAL THE ASSESSOR	MANUAL SEC and Use Codes: RETAIL	COMMERCI	AL, OFFICE PAG	DATE: 10/93 GE 10 OF 24
EXAME	PLES OF RETAIL/COMMERCIAL LAND	USE CODES		EXAMPLES OF OFFICE LAND USE CODES	
Use Code	Description of Property		<u>Use Code</u>	<u>Description of Property</u>	
BAAOOA	Retail commercial store building tenant, the most probably use of	occupied by one f the site.	CAADDA	One-story general office, the most probat the site.	ble use of
BBBOAB	Store and office combined in on residence on parcel. Building is a	ie building with one an underimprove-	CABOOB	Two-story office, an underimprovement fo	or the site.
	ment for the site.	-	CAXOOE	Condominium office complex under cons	struction.
BBA00A	Retail store with office, the most site.	probable use of the	CAYOOC	Planned unit development office complex improvement for the site.	x, an over-
BCA00E	Restaurant under construction.		CBC00C	Large multi-story office building for single to verimprovement for the site.	tenant, an
BFKOOB	Abandoned service station, an u	underimprovement.		-	•
BDC00A	Large discount store, the best usu	e of the site.	CCA00A	One-story bank building, the most probat the site.	ole use of
BEBOOC	Neighborhood shopping center, ment of the site.	an overimprove-	CDA0BA	Savings and loan in one-story office with r mercial operation also in building. The bu the most probable use of the site.	retail/com- uilding is
BFIOOA	Three-story parking structure, the	best use of the site.			
BG000A	Auction yard, the best use of the	t site.		With secondary use of agriculture.	
BIODAA	Nursery with a residence on parc	cel. the best use of	CFA00A	Post Office In one-story building, the best	use of the site.
BQ000A	Common area in a retail comme	ercial condominium	CGA00A	One-story medical/dental office, the mos use of the site.	st probable
	(or plannea unit aevelopment).		CHA002	One-story veterinarian office/clinic on 2 p	oarcel site.
•			CQ000A	Common area for office condominium.	
			CJA00A	Residential property converted to office s most probable use of the site.	space, the

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OPERATIONS MANU OFFICE OF THE ASSE	AL SSOR	MANUAL SECTION 13 Land Use Codes: OF	3-14 FICE		EFFECTIVE DATE: 10/93 PAGE 11 OF 24
1 General Land Use	2 Specific Land Use	3 Occupancy	4	<u>5</u> Secondary Use	<u>é</u> Character of Use [©]
C - Office	A - Office, general	A - One story	0	Indicate any secon-	A - Most probable
	B - Large single	6 - Iwo story C - Multiple stories V - Condominium	0	aary use py using General Land Use Coder	ی میں معدد اسم میں اسم اسم اسم المال ال المال المال الم
		Y - Planned Unit Development	0		H - Historical property
	C - Bank	→	0	Use 'M' tor a miscellaneous	P - Permit entered
	D - Savings & Ioan	-	0	Improvement If no secondary use,	OR
			1	use '0'	<u>Parcel Grouping</u>
-	E - Broadcasting, Radio/TV	→	A - Studios B - Transmitt	ers ←	Indicate number of parcels in an econo-
		→			mic unit. If 10 or
	F - Post office	_		→	more parcels, use 'X'
	G - Medical/Dental o	ffice,	0	→	→
	clinic, laboratory	->	0		-
	H - Veterinarian office clinic, hospital			→	→
	Q - Common area	•		→	÷
	J - Residential conver to office	sion	>	→	→
 Use the following 1st: E or P code 	I priority to determine th 2nd: H code	ie sixth digit of the use code: <u>3rd:</u> Parcel grouping	<u>4th:</u> A, B, c	r C code	

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OPERATI OFFICE (ONS MANUA DF THE ASSES	SOR	MANUAL SE Land Use Codes: PER	ECTION 13-14 SONAL CARE & HEAU	E	EFFECTIVE DATE: 10/93 PAGE 12 OF 24
Generc	1 I Land Use	2 Specific Land Use	3 Dwelling Unit Count	4 Dweiling Unit Count	$rac{5}{5}$ Secondary Use or Dwelling Unit Count [®]	<u>é</u> Character of Use [©]
D - Perso and h	nal care. ealth	A - Acute care hos- pital, MD on duty 24 hours	Hundred's digit ↓	Ten's Digit ↓	One's digit +	A - Most probable B - Under improvement C - Over improvement
		B - Skilled Nursing Facility, RN on	÷	->	\rightarrow	E - Unfinished H - Historical property
		duty 24 hours C - Residential care	→	→	→	P - Permit entered
		facility D - Retirement home	÷	→	\rightarrow	OR
		E - Day nursery	→ .	→	->	<u>Parcel Grouping</u> Indicate number of par-
		F - Cemetery & Mortuary related	C - Cemetery M - Mortuary X - Combination	0	0	cels in an economic unit. If 10 or more par- cels, use 'X'
D Use 1 1st: 1	he following I Tor P code	oriority to determine the 2nd: H code	e sixth digit of the use co <u>3rd:</u> Parcel group	ode: 2115 <u>4115</u> A, B, C	or C code	-
© Use 1 1st: 1	he following p Dwelling unit (priority to determine the sount 2 <u>nd</u> : Sec	e fifth digit of the use co condary use. Indicate o	de: any secondary use by u	using General Land Use c	codes.
		EXAN	MPLES OF PERSONAL CA	re & health land use	CODES	
DA312A	Hospital. MI Datients) on duty 24 hours. Ca	pacity is 312	DD060A Privately	owned retirement home	e. Capacity Is 60 persons.
			1	DE000B Day nurse	ery, an underimproveme	ent for the site.
DB120A	skilled nursin Is 120 patien	g racility. KN on auty z ts.	14 nours. Capacity	DFC00X Cemeter	y located on 26 parcels.	
DC100A	Residential c	are facility. Capacity i	is 100 patients.	DFM00A Mortuary		
DFX007	Cemetery a	nd mortuary on 7 parce	els.			
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OPERATIO	NS MANU	AL	MANUAL SECT	13-14		FFFFCTIVE DATE: 10/03	
OFFICE O	F THE ASSE	SSOR	Land Use Codes: CF	IURCH & WELFAR	ш	EFFECTIVE DATE: 10/73 PAGE 13 OF 24	
General	L Land Use	2 Specific Land Use	3 Exemption Status	4 (not used)	ءsu Secondary Use	$rac{4}{2}$ Character of Use $\mathbb O$	
E - Church	ه welfare —	E - Church F - Private school K - Private social service agency	A - Exempt B - Partially exempt C - Non-exempt ↓	0 0 0	Indicate any secon- dary use by using General Land Use Codes Use 'M' for a miscellaneous improvement if no secondary use, use '0'	A - Most probéble B - Under Improvement C - Over Improvement E - Untinished H - Historical property P - Permit entered OR OR Parcel Grouping Indicate number of parcels in an econo- mic unit. If 10 or more parcels, use 'X'	-•
D Use th 1st: E	e following or P code	priority to determine th 2nd: H code	ne sixth digit of the use cod: <u>3rd:</u> Parcel groupin;	e: g <u>4th:</u> A, B	i, or C code	<i>\$</i>	_ - •
		щ	XAMPLES OF CHURCH & WI	ELEARE LAND USE (CODES		
<u>Use Code</u>	<u>Descript</u>	ion of Property					
EEBOFA	Church rentals.	with a recreation hall. The church building an	The hall is rented out to the dadjacent parking is exem	e general public; 1pt: the recreatior	the church derives substants in hall is not. Present use is	antial revenue from these the most prob-dale use.	
EFA00A	Exempt	private school, not a Pl	or ILL.		•		
EKA00A	Exempt	social service agency.					

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OPERATIONS MANU OFFICE OF THE ASSE	AL ESSOR	MANUAL SECTIO Land Use Codes: RE	DN 13-14 ECREATIONAL		EFFECTIVE DATE: 10/93 PAGE 14 OF 24	
1 General Land Use	2 Specific Land Use	3 Occupancy	4 (not used)	<u>5</u> Secondary Use	$rac{\delta}{\Delta}$ Character of Use $\mathbb O$	
F - Recreational	A - Golf course	A - Private	0	Indicate any secon-	A - Most probáble	
		6 - rubiic C - Country club	0	aary use by using General Land Use	c - Over Improvement	
:	5	D - Mini E - Driving range	0	Codes	e - Untinisnea H - Historical property	
	B - Bowling	0	0	Use 'M' for a miscellaneous	P - Permit entered	
	C - Skatina	C	0	Improvement If no secondary use,	OR	
) (use '0'	Parcel Grouping	
_	D - Race track		Ð	→	parcels in an econo-	-
	E - Marina	ο	0	→	mlc unit. If 10 or more parcels, use 'X'	
	F - Theater	A - Drive-in B - Indoor	0	→		
		C - Combination	0	· - ,	~ ~	-
•	G - Private club	A - Fratemal B - Shooting (target)	0	→	••	
		C - Game	0			
		D - Flying E - Cabana	0	→	 +	
-		F - Riding stable				
		G - Swimming & tennis	0		-	
		H - NUaist J - Handbail/racquetbail	0	•	• -	
		K - Health & figure spa		→	→	
	H - Sports courts, fields, stadium	0	0			
 Use the following 1st: E or P code 	g priority to determine th 2nd: H code	he sixth digit of the use code: <u>3rd:</u> Parcel grouping	41h: A. B	or C code		

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OPERATIO OFFICE OI	NS MÅNUAL F THE ASSESSOR	MANUAL SECTION 13-14 Land Use Codes: RECREATIONAL & INDUSTRIAL	EFFECTIVE DATE: 10/93 PAGE 15 OF 24
		EXAMPLES OF RECREATIONAL LAND USE CODES	:
<u>Use Code</u>	<u>Description of Property</u>		
FAAOBX	Private golf course open	to members and guests only. Retail shops on the site. 10 parcel	s on the site.
FABOHB	Privately owned golf cor	irse open to the public. Secondary use of agriculture. Present us	se is underimprovement for the site.
FAD00C	Mini-golf course, an over	improvement for the site.	
FBOOBA	Bowling alley with retail s	hops, the best use of the site.	
FCOODE	New skating rink under c	onstruction.	
FD00AC	Race track with secondo	ary residential use. Present use is the most probable use of the s	site.
FEOOBA	Marina with retail shops,	the most probable use of the site.	
FFC0G6	Combination indoor/driv	e-in theater, with 6 parceis in the economic unit.	
FGC00X	Fifteen parcel game clut	ġ	
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OPERATIONS MANI OFFICE OF THE ASS	JAL ESSOR	MANUAL SEC Land Use Code	CTION 13-14 es: INDUSTRIAL		EFFECTIVE DATE: 10/93 PAGE 16 OF 24
1 General Land Use	2 Specific Land Use	. <u>3</u> Occupancy	<u>4</u> Subdivision Type	<u>5</u> Secondary Use	<u>≜</u> Character of Use [©]
G - Industrial	A - Light	A - Processing B - Eachdocation	A - Industrial park B - Industrial park	Indicate any secon-	A - Most probable
	8 - Heavy	C - Assembly	C - Non-subdivision	General Land Use	
	Curred-res/M ()	D - Contractor yard	X - Condominium	Codes	E - Unfinished
	C - Warenouse	e - wrecking yara F - Incubator	t - riannea unit development	Use 'M' for a	н - нізтогісаї ргорепу Р - Permit entered
	D - Building materials	G - Storage	}	miscellaneous improvement	Č
	E - Aerospace	H - Office/Warehouse	•	If no secondary use,	Ď
	- :	(more than 30% ofc)	→	use '0'	Parcel Grouping
	F - Truck/transit terminal	J - Distribution (15 - 30% office)	→	→	Indicate number of parcels in an econo-
		K - Other	-	_	mic unit. If 10 or
			•	~	more parcers, use v
	G - Food processing	A - Bakery B - Cannery C - Wincov		→	→
		D - Creamery	→	→	→
		E - Meat	_	_	_
		F - Frozen	→	•	•
		G - racking piant H - Slaughter yard		→	→
		I - Grain & feed storage	→	->	→
-	H - Inspection & welghing station	0	→	→	÷
		c		-1	
	I - Airport (privare)	5	•	•	•
	J - Mining	A - Gravel pit	→	→	→
		8 - Clay pir C - Gas well	- >	→	→
(cont. on Page 17)	K - Railroad spur	0			

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OPERATION OFFICE OF	NS MANI THE ASS	J A L ESSOR	MANUAL SE Land Use Cod	CTION 13-14 es: INDUSTRIAL		EFFECTIVE DATE: 10/93 PAGE 17 OF 24	
L General L	and Use	2 Specific Land Use	<u>3</u> Occupancy	4 Subdivision Type	∑ Secondary Use	$rac{\delta}{\Delta}$ Character of Use $\mathbb O$	
G - Industric	T.	L - Mini-storage	0	A - Industrial park	Indicate any secon-	A - Most probable	
•. `		় - Multi-tenant	(Same as for Heavy, Light, etc.)	 B - Industrial sub C - Non-subdivision X - Condominium V - Planad Junit 	dary use by using General Land Use Codes	 B - Under Improvement C - Over Improvement E - Unfinished 	
		Q - Common area (condo/PUD)	0	development	Use 'M' for a miscellaneous improvement If no secondary use,	h - Histoncal property P - Permit entered OR	
					use '0'	Parcel Grouping	
D Use the Isti E o	e following or P code	g priority to determine th 2nd: H code	ne sixth digit of the use co <u>3rd:</u> Parcel group	ode: Ving <u>4th:</u> A, B, o	· C code		
			EXAMPLES OF INDUST	RIAL LAND USE CODES			
<u>Use Code</u>	Descrip	tion of Property					
GAAA0A	Light pr	ocessing plant in Indust	ial park, the best use of t	he site.			-
GBCC08	Heavy	assembly plant not in a	subdivision. Located on	8 parcels.			
GCHA0A	Distribu	tion center, 35% of whic	h is office space, in indus	ttdal park. Present use l	s most probable use of	site.	
GDG808	Building) materials business, 5% (of which is office space, i	n industrial subdivision,	an underimprovemen	t for the site.	
GEKCCC	Aerosp(ace corporation R & D p	olant not In subdivision, w	Ith secondary use as of	fice space. An overim	provement for the site.	
GFJB0A	Truck te	irminal, 20% of which is c	office space, on Industria	I subdivision site, the me	ost probable use of the	e site.	
GGBCOX	Large c	annery and food proce	ssing plant on 10 parcels	of non-subdivision Indu	strial land.	• •	
GGGBBA	Food p	acking plant in industria	l subdivision. Has retall/c	ommercial secondary	use. Present use is mos	t probable.	
GH000A	Inspecti	ion and weighing statio	n, the most probable use	of site.			
GIOOBE	Private	airport being enlarged	lo double size of hangar	storage space. Also sn	all coffee shop on the	site.	
GJA00X	Gravel	pit on 10 parcel site.					

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OPERATIONS M OFFICE OF THE	ANUAL ASSESSOR		MANUAL SEC Land Use Codes:	CTION 13-14 AGRICULTU	RAL	EFFECTIVE DATE: 10/9 PAGE 18 OF 2	64
General Lahd I	Use S	2 Primary & econdary Use	3 Special	4 ال©	<u>5</u> Residence count	ل Character of Use	
H - Agriculture	А- Speciel - Row Grow C- Row Grow C- Row Grow - Row Grow C- Row Grow C- Row Grow - Tield C- Row C- Row Grow - Tield C- Row C- C- Row C- C- Row C- C- C- Row C-	op & field crop rop & field crop rop & trig. pasture op & dry pasture asture & row crop asture & field crop asture & field crop asture & field crop sture & field crop	 A -None B - Pear orchard C - Walnut orchard D - Olive orchard F - Cherry orchard F - Cherry orchard G - Orange orchard G - Orange orchard H - Almond orchard J - Plum orchard J - Plum orchard I - Plum orchard M - Trees & vines N - Grape vines P - Plstachlos P - Puttry - chicken 	АОТОХХГХЧТАОТПОСВА 2022215 20222 2022 202 202 2022 202	A - None B - 1 C - 2 D - 3 E - 4 F - 5 or more M - Misc. (pumps, barns, etc.)	 A - Proper & economic unif (suitable soil & size) (suitable soil & size) B - Proper & portion of economic unit (suitable soil but too small) C - Proper & non-economic unit (suitable soil but too small) D - Proper & portion of economic unit (suitable soil but too small) D - Proper & portion of economic unit (suitable soil but too small) E - Unfinished F - Transitional G - Agricultural preserve (LCA) H - Improper use (unsuitable soil) P - Permit entered P - Permit entered Indicate number of parcels in an economic unit. If 10 or more parcels. use 'X' 	۰ - ۲ ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ - ۲۹۰۰ -
Use the folic 1st: G code	x - Talling S - Dry pa U - Irrigat wing priori	sture & tailings cop & tailings ad pasture & tailings by to determine the six 2nd: E or P code	r - rouiny - Jurkey S - Fish farm T - Hops U - Hunting clubs U - Hunting clubs d - House coo	de: 	Di A, B, C, D or H o		I

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OPERATIC OFFICE OI	NS MANUAL THE ASSESSOR	MANUAL SECTION 13-14 Land Use Codes: AGRICULTURAL	EFFECTIVE DATE: 10/93 PAGE 19 OF 24
5 For sin	iplification, six soil grades have been esta	blished by combining solls having a range in index ratings, as	iollows.
<u>Grade 1</u>	Excellent. Solls whose rating is from 100 to ield. Yleids are high.	80 percent. Sultable for a wide range of crops, such as alfalf	a, orchards, truck, and
Grade 2	Good. Soils whose rating is from 79 to 60 p	vercent. Sultable for most crops and yleids are good.	
Grade 3	air. Soils whose rating is from 59 to 40 per which the production is less than on soils c	cent. Are either of fair quality, usually suited to a narrow rang f grades 1 and 2. For some particular crop, grade 3 solls may	e of crops, or ones on be excellent to good.
Grade 4	Poor. Soils whose rating is from 39 to 20 pe serious problems in land use.	srcent. Have a very narrow range in suitability and yields are l	ow. Present one or more
<u>Grade 5</u>	Very poor. Soils whose rating is from 19 to	10 percent. Usually suited only to grazing.	
Grade 6	Vonagricultural. Soils whose rating is belovuse.	w 10 percent. Includes wastelands; very steep or rocky lands	having no agricultural
	EXAM	PLES OF AGRICULTURAL LAND USE CODES	•
<u>Use Code</u>	Description of Property		
HABCFA	Producing pear orchard with very good buildings located on the site. Current L	d soil. The owner's home, three homes for year-round help, ar ise is best use of the site.	nd three labor camp
HAQHCA	Producing chicken ranch with 2 homes	on the site. A proper economic unit for this location and ma	ket area.
HATABA	Hop far on #1 river bottom land. Has h	ome plus processing and storage building. The farm is a prop	er economic unit.
HBCECC	Row crop and wainut orchard on suital	ole soll with 2 residences, but too small to provide full family in	come for the owner.
HCNBDC	Small row and field crop operation with Operation is proper for the site; howeve	i some land devoted to vineyards. One home and two cotta er, owner is having problems competing with larger growers.	ges on the site.
HFAEAA	Portion of a farm specializing in field cr	ops. A proper economic unit, suitable soll and size, with no dv	velling on the farm.
HHAFBF	Field crop and inigated pasture land in	area in transition to another use.	
HJNIMC	Irrigated pasture with some grapes. Ha	s installed Irrigation system, vineyard, some fruit trees and gar	age/tool house.
HNAMTF	Dry pasture with mobile home, well, sep another use.	vilc tank, pump house, animal shed, horse barn, and chicken	house. In transition to
HOAIBG	Most of the land is rolling hills devoted t production. Site has one home in the c	o dry cow pasture. Small amount of fair to good bottom land agricultural preserve.	l use for row-crop
HSASBG	Half of site is old dredger tailings; half is	dry pasture with one home. Land is in the agricultural preserv	ġ

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99	ERATIONS MANU FICE OF THE ASSI	IAL ESSOR	MANUA Land Use	N SECTION 13-14 Codes: VACANT		EFFECTIVE DATE: 10/93 PAGE 20 OF 24
ů O	<u>1</u> neral Land Use [©]	2 Proposed Use	Type & Size ³	$\frac{4}{5}$	5 Utility Services	<u>é</u> Character of Use [®]
-	∕acant A	- Residential - Retall/Commercial	A - Acreage: under 10 acres B - Acreage:	A - No paving B - Paving only	A - No utilities B - Water only C - Sewer only	A - Economically ready for development B - Not economically
	5 U	- Office	10 to 49 acres C - Acreage: 60 to 100 acres	C - Paving with	C - Jane Curry D - Drainage only E - Water & sewer	ready for develop- thent
	<u>م</u>	- Personal care & health	D - Acreage: over 100 acres	D - Paving with	r - warer, sewer a drainage G - Sewer &	r - uninstrequire improvements
	Ľ.	- Recreational	E - Site: under 2 acres	curbs, gutters & sidewalks	drainage H - Water &	O C
	U	- Industrial		E - Landlocked	M - Miscellaneous	Indicate number of
	π	- Agricultural	G - Site: over 5 acres [®]		Improvement, primarily vacant	parcels in an economic unit. If 10 or more par- cels, use 'X'
6	Vacant land inc property to be v	ludes those propertie: acant land.	where the Improveme	ents have little or no val	ue. In these cases, con	sider the primary use of the
	Vacant land do Vacant land wh	es not include govern ose current use is prirr	ment-owned land. Su	ch land is to be classifie v aaricultural should be	d under category "W", classified under Catea	Public Land Use. ory H. Aaricultural Land Use.
0	Site Vs Acreage residential, comi sites. Non-build-	<u>Sites</u> are bullding sit mercial, office, etc. <u>A</u> able land is never a si	es where the land has <u>creage</u> is land that is a te, regardless of size,	been divided into indivi apable of and likely to	dual sites for a propose be further subdivided It	d use - for example, nto smaller acreage or into
0	Use the following <u>1st</u> : E Code	g priority to determine 2 <u>nd:</u> Parcel (the 6th digit of th e use grouping	e code: <u>3rd:</u> A or B code.		
0	Sites under 5 acr be capable of fu	es – If use is primarily urther subdivision and	agricultural, use categ classify as Acreage (se	ory H, Agricultural Land se Note 7).	Use. If 10 acres or more	e, consider the property to

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List Code EXAMPLES OF VACANT LAND USE CODES Use Code Description of Property IAAAA Five acres of vacant residential acreage with no parving or utilities, but is economically ready for development IACREB seventy-five acre multi-residential acreage with no parving or utilities, but is economically ready for development. IAAA Single-family residential parcel fronting on a paved street with a water line parclialing the street. Not economical residential parcel fronting or and seven. Other sile with parving, curbs, gutters, sidewalls, water, sever, and drainage, Ready for development. IAERA Three acre home sile with parving, water, and sever. Economically ready for development. IAERA Three acre home sile with parving, water, and sever. Economically ready for development. IAERA Nine acre relatiformmercial site with all utilities. Economically ready for development. IBERA Nine acre relatiformmercial site with all utilities. Ready for building. IFDEAB Ive hundred acre recrectional parcel. Currently landlacked. No utilities on site. Not ready for development. IFDEAB Ive hundred acre recrectional site with full site improvements. Ready for building. IFDEAB Ive hundred acre recrectional parcel. Currently landlacked. No utilities on site. Not ready for development. IFDEAB Ive hundred acre recrectional parcel. Currently allows. IFDEAB Acre Industriat sit			Land Use Codes: VACANT	PAGE 21 OF
Use Code Description of Property IAAAM Five acres of vacant residential acreage with no paving ar utilities, but is economically ready for development IACBB Seventy-five acre multi-residential parcel fronting on a paved street with a water line parcelling the street. Not economically ready for development. IAEAE Single-family residential or. No paved roads. Has water and seven. Other site improvements in progress. IAEAE Single-family residential of. No paved roads. Has water and seven. Other site improvements in progress. IAEAE Che acre residential home site with paving, cuts, guiters, idewalds, water, sever, and drainage, Ready for development. IAEAE Three acre home site on paved road. No utilities. Economically ready for development. IAEAE Three acre home site on paved road. No utilities. Economically ready for development. IAEBA Three acre home site on paved road. No utilities. Ready for development. IAEAE Nine acre retrail/commercial site with all utilities. Ready for building. IBEAA Nine acre retrail/commercial site with utilities. Ready for building. IAFDA Two hundred acre recreational parcel. Currently landlocked. No utilities on site. Not ready for development. IFDEAB Two hundred acre recreational parcel. Currently ready for building. IFDEAB Two hundred acre recreational parcel. Currently			<u>EXAMPLES OF VACANT LAND USE CODES</u>	
 KAMA Five acres of vacant residential acreage with no paving or utilities. But is economically ready for development KAERE serverhy-five acre multi-residential parcet fronting on a paved street with a water line parcelling the street. Not economical severy for development. KAERE Single-family residential lot. No paved roads. Has water and sever. Other site improvements in progress. KAERE Single-family residential lot. No paved roads. Has water and sever. Other site improvements in progress. KAERE Cone acre residential houre site with paving, curbs, guiters, sidewalds, water, sever, and drainage. Ready for development. Ketall/Commercial site with paving. water, accordically ready for development. Ketall/Commercial site with paving. water, according for development. Ketall/Commercial site with full utilities conscilly ready for development. Ketall/Commercial site with full utilities. Ketall/Commercial site with full site improvements. Ready for building. Ketall/Commercial site with full site improvements. Ready for building. Ketally for development. Acre Industrial site with full site improvements. Ready for building. Ketally for development. Acre Industrial site with full site improvements. Ready for building. 	Use Code	Description of Property		
 IACBB Seventy-five acre multi-residential parcel fronting on a paved street with a water line paralleling the street. Not economica ready for development. IAEAE Single-family residential to proved roads. Has water and sever. Other sile improvements in progress. IAEAA The acre handle home site with paving, curbs, gutters, sidewalks, water, sever, and atanage. Ready for development. IAEAA Three acre home recipies on paved road. No utilities. Economically ready for development. IAEAA Three acre home recipies on the state and sever. Conomically ready for development. IBEBEA Nine acre retail/commercial site with paving, water, and sever, no utilities on site. Not ready for development. IFDEAB Three acre retail/commercial site with util site improvements. Ready for building. IPEAB Three acre retail/commercial site with full site improvements. Ready for building. IPEAB Three acre retail/commercial site with full site improvements. Ready for building. IPEAB Three housing the with full site improvements. Ready for building. 	IAAAA	Five acres of vacant residential acr	eage with no paving or utilities, but is economically r	ready for development
 IAEAE Single-family residential lot. No paved roads. Has water and sever. Other site improvements in progress. IAEDFA The acre residential home site with paving, curbs, gutters, sidewalts, water, sever, and drainage. Ready for development. IAEBA Three acre home site with paving, water, and sever. Economically ready for development. IBEBA Retail/Commercial site with paving, water, and sever. Economically ready for development. IBEA Nine acre retail/commercial site with all utilities. Ready for building. IFDEAB Two hundred acre recreational parcel. Currently landlocked. No utilities on site. Not ready for development. IFDEAB TAcre Industrial site with full site improvements. Ready for building. IFDEAB TAcre Industrial site with full site improvements. Ready for building. 	IACBBB	Seventy-five acre multi-residential pready for development.	barcel fronting on a paved street with a water line po	varalleling the street. Not economicc
IAEDFA One acre residential home site with paving, curbs, guiters, sidewalks, water, and drainage. Ready for development. IAFBAA Three acre home site on paved road. No utilities. Economically ready for development. IBEBEA Rehall/Commercial site with paving, water, and sewer. Economically ready for development. IBECFA Nine acre relatificommercial site with all utilities. Ready for building. IFDEAB Two hundred acre recreational parcel. Currentiy landlocked. No utilities on site. Not ready for development. IFDEAB Acre industrial site with full site improvements. Ready for building. IFDEAB Acre industrial site with full site improvements. Ready for building.	IAEAEE	Single-family residential lot. No pav	red roads. Has water and sewer. Other site improve	ements in progress.
IAFBA Three acre home site on paved road. No utilities. Economically ready for development. IBEBEA Retail/Commercial site with paving, water, and sever. Economically ready for development. IBGCFA Nine acre retail/commercial site with all utilities. Ready for building. IFDEAB Two hundred acre recreational parcel. Currently landlocked. No utilities on site. Not ready for development. IFDEAB Acre Industrial site with full site improvements. Ready for building. ICFDFA Acre Industrial site with full site improvements. Ready for building.	IAEDFA	One acre residential home site with	paving, curbs, gutters, sidewalks, water, sewer, and	d drainage. Ready for development
IBEBA Relal/Commercial site with paving, water, and sever. Economically ready for development. IBGCFA Nine acre retail/commercial site with all utilities. Ready for building. IFDEAB Two hundred acre recreational parcel. Currently landlocked. No utilities on site. Not ready for development. GFDFA 4 Acre Industrial site with full site Improvements. Ready for building.	IAFBAA	Three acre home site on paved roc	id. No utilities. Economically ready for developmen	nt.
IBGCFA Nine acre retail/commercial site with all utilities. Ready for building. IFDEAB Two hundred acre recreational parcel. Currently landlocked. No utilities on site. Not ready for development. IGFDFA 4 Acre Industrial site with full site Improvements. Ready for building.	IBEBEA	Retall/Commercial site with paving	, water, and sewer. Economically ready for develop	pment.
IFDEAB Two hundred acre recreational parcel. Currently landlacked. No utilities on site. Not ready for development. IGFDFA 4 Acre Industrial site with full site Improvements. Ready for building.	IBGCFA	Nine acre retail/commercial site wi	th all utilities. Ready for building.	
IGFDFA 4 Acre Industrial site with full site improvements. Ready for building.	IFDEAB	Two hundred acre recreational pa	cel. Currently landlocked. No utilities on site. Not re	ready for development.
	IGFDFA	4 Acre Industrial site with full site im	provements. Ready for building.	
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OFFICE C	ONS MAP DF THE AS	JUAL SESSOR Lanc	MANUAL SECTION 13-14 I Use Codes: MISCELLAN	EFFECTIVE DATE: 10/93 EOUS PAGE 22 OF 24
General	L Land Use	2 Specific Land Use	3 Character of Use©	Comments & Examples of Use
M - Misce	laneous	AWAY - Walkway	A - Most probable	MAWAY2 - Pedestrian walkway to school with 2
		BRID - Bridai path, hiking trail, etc.	B - Under Improvement C - Over improvement	parcels in the site. MBRIDA - Bridal path, hiking path, or blke path, the
		DITC - Drainage ditch	e - Unimistrea H - Historical property P - Permit entered	MDITCE - Drainage ditch under construction.
		EROD - Eroded or waste land	S -Use as last digit of use	MERODX - Site of worked-out clay pit consisting of 10
		FLOD - Flood plain land	coae tor mineral rights parcels.	MFLODA - Flood plain land with no other foreseeable
		GATE - Irrigation	OR	notice use. MGATEA - Irrigation ditch, pond, etc.
		INRT - Mineral rights	Parcel Grouping	MINRTS - Mineral rights In property.
		LEVE - Levee land	parcels in an econo-	MLEVEX - Levee land with more than 9 parcels in the site.
		PARK - Park, greenbelt, etc.	mic unit. If 10 of more parcels, use 'X'	MPARKC - Private park, an overimprovement for the site.
		ROAD - Privațe road		MROADB - Private dirt road serving 10 home sites.
		SMAL - Too small or too irregularly shaped for any foreseeable use.		Lacks sireers, curps, guiters, and slaewalks. MSMALA - Land 10 ft wide by 320 ft deep with no foreseeable economic use. MTAIL6 - Six parcels of dredger tailing on old miner's road.
		UTIL - Utility , power, sewer, etc.		MUTILA - Land whose primary use is for power and sewer lines, the most probable use of the site.
		WELL - Well and pump, etc.		MWELLA - Well, pump, and storage tank for domestic water supply in a subdivision of tract homes, the most probable use of the site.
D Use t 1st: 1	the followi E or P cod	ng priority to determine the sixth digit e <u>2nd:</u> H code <u>3rd:</u>	of the use code: Parcel grouping 4	th: A, B, or C code

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OFERATIONS MANU OFFICE OF THE ASSI	JAL ESSOR	MANUAL SECTI Land Use Codes: PL	ION 13-14 JBLIC & UTILITIES		EFFECTIVE DATE: 10/93 PAGE 23 OF 24
1 General Land Use	2 Specific Land Use	3 Exemption Status	<u>4</u> Lease Type	5 (not used)	<u>م</u> Character _l of Use
W - Public & Utilities	A - Federal	A - Exempt/nontaxable	A - Possesory Interest	o	A - Most probable
· · · ·	8 - State @	8 - Parilally exempt	B - Lease back	0	b - Under Improvement C - Over Improvement
	C - County	C - Non-exempt	C - Nelther A nor B	0	e - Untinisned H - Historical property
	D - City	\rightarrow	÷	0	r - remirentered
	F - Public school	\rightarrow	- →	0	O
- <u></u>	G - Special district	→	→	0	<u>Parcel Grouping</u> Indicate number of par-
	H - SBE property	→	→	0	lf 10 or more parcels, use 'X'
	M - Public housing	→ ,-	->	0	
 Use the following 1st: E or P code 	g priority to determine th 2nd: H code	ne sixth digit of the use code <u>3rd:</u> Parcel grouping	:: 4th: A, B, or C	code	*Gç

Do not use the 'W' General Land Use code for properties which have been 'sold to the State' for taxes. Code these according to their current or last known use, for example, single-family residence, retail store, etc. 9

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See page 24 for examples of Public & Utilities use codes.

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VS MANUAL MANUAL SECTION 13-14 THE ASSESSOR Land Use Codes: PUBLIC & UTILITIES	EXAMPLES OF PUBLIC AND UTLITIES LAND USE CODES	Description of Property	U.S. Government owned and occupied building. The most probable use of the site.	State-owned apartment house leased to tenants. The leasehold interest is taxable while the State's fee sim exempt. The improvements are an underimprovement for the site.	County building leased to a handicapped person. Present use is most probable use of the site.	Six parcel site owned by the County. The best use of the property.	City-owned parcel.	Public School	Water district office.	Water district water reservoir. Small portion of the land is open to the public for picnics. Also has a small ch playground.	Railroad switching yard appraised by SBE. Twenty parcels in the site.				•			
OPERATION		<u>Use Code</u>	WAACOA	WBBÅOB	WCAA0A.	WCAC06	WDACOA	WFACOA	WGACOA	WGACOA	WHBCOX	•		·		;·		•

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APPENDIX C: ASSESSMENT EQUATIONS

The assessment equation is, in general:

Assessment = {[(Relative Land Damage Value) x (Parcel Acreage)] + [(Relative Structure Value) x (Building Square Footage) x (Percent Damage)]} x Assessment Rate

Where:

- Relative Land Damage Value is as defined in Table 5-3 by land use category.
- Parcel Acreage is a particular parcel's acreage.
- Relative Structure Value is the unit structure cost as defined in Table 5-1 by land use category.
- Building Square Footage is the first and second stories of all residential structures and the first story of all non-residential structures.
- Percent Damage is the flood damage to structure and contents expressed as a percent of structure value as defined in Table 5-2 by flood depth zone. Flood depth zones are shown on Figure 5-1.
- Assessment rate is 0.0004886.

The example assessment calculations provided in Section 5.5 of this Engineer's Report illustrated the use of the simplified combined assessment formula presented Section 5.4. The following assessment calculation demonstrates the use of the equivalent assessment equations defined in this Appendix.

Example 1 (same as Example 1 in Section 5.5)

Assume a one story single-family residential property located in NBLAD, Flood Depth Zone 1 (0 to 5 ft), with parcel size 0.17 acres and building square footage of 1,200 square feet.

- From Table 5-3, Relative Land Damage Value is \$16,600 per acre.
- From Table 5-1, Relative Structure Value is \$71 per square foot.
- From Table 5-2, Percent Damage to Structure and Contents is 56-percent.
- Assessment Rate is 0.0004886.
- Assessment = $[(\$16,600/ac \times 0.17 ac) + (\$71/sf \times 1,200 sf \times 56\%)] \times 0.0004886 = \25

APPENDIX D: LAND USE CATEGORY ASSIGNMENTS

For assessment calculation purposes, all parcels in the proposed NBLAD were assigned to one of the following land use categories: single-family residential, multi-family residential, commercial, industrial, vacant residential, vacant commercial, vacant industrial and agricultural. The assignment was based on the Sacramento County Assessor's Land Use Codes (defined in Appendix B) and the following pairings:

Table D-1: Land Use Category A	ssignment from County Assessor's Land Use Codes
Assessment Land Use Category	First Two Characters of Six Digit Sacramento County Assessors Land Use Code (see Appendix B for definitions)
Single-Family Residential (SFR)	A1, A2, AQ, AT
Multi-Family Residential (MFR)	A3, A4, AD, AE, AF, AG, AH, AL
Commercial (COM)	AJ, AK, AM, AN, AR, BA, BB, BC, BD, BE, BF, BG, BH, BI, BQ, CA, CB, CC, CD, CE, CF, CG, CH, CJ, CQ, DA, DB, DC, DD, DE, DF, EE, EF, EK, FB, FC, FD, FE, FE, FF, FG, FH
Industrial (IND)	GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GQ
Vacant Residential (VAC RES)	IA and parcels with SFR or MFR codes but without a building
Vacant Commercial (VAC COM)	IB, IC, ID, IF and parcels with COM codes but without a building
Vacant Industrial (VAC IND)	IG and parcels with IND codes but without a building
Agricultural (AG)	H_ and IH

Public parcels with structures were assigned to the Public category. Those without a building were classified as vacant commercial. An exception was the redevelopment agency parcels, which were classified as single-family residential or vacant residential as appropriate.

Parcels with County Assessor's Land Use Code of Miscellaneous (M_) were assigned one of the vacant Land Use Categories.

Where the County Assessor's Land Use Codes were inconsistent with other information available for the parcel from the County Assessor or other sources, a determination was made as to the appropriate Land Use Category to assign to the parcel. Such assignments could differ from Table D-1.

Sutter County parcels in Natomas were assigned a land use category based on the Land Use Appraisal Code for the parcel established in SAFCA's Operations and Maintenance Assessment District No. 1.

Sacramento County parcels in the Natomas Basin outside the developed or developing area that are zoned for agricultural use but have a vacant residential County Assessor's Land Use Code were classified as agricultural based on zoning designation to more correctly reflect the current use of the land and associated relative flood damage reduction benefit.

APPENDIX E: ASSESSMENT ROLL

(UNDER SEPARATE COVER)

APPENDIX F: MAP OF NBLAD BOUNDARY

