

ENGINEER'S REPORT
SACRAMENTO COUNTY WATER AGENCY
ZONE 13
FISCAL YEAR 2006-2007

ZONE PROGRAM

Zone 13 encompasses the unincorporated area of Sacramento County, and the City of Citrus Heights, the City of Elk Grove, and the newly formed City of Rancho Cordova. The areas within the boundaries of the cities of Sacramento, Folsom, Isleton, and Galt are not included. The services provided by Zone 13 are performed for the benefit of the properties within the Zone. Outside of the Zone, these services are performed by the aforementioned cities.

Activities funded by Zone 13 consist of developing comprehensive long-range engineering plans in connection with projects beneficial to properties within the Zone. These projects include local, state, and federal projects for flood control, water resource management, water supply development, water conservation, and drainage water quality. As construction projects are identified, financing mechanisms are formulated, and new zones may be created as necessary. Additional activities funded by the Zone include participation in regulatory and legislative hearings and negotiations and discussions with local, state, and federal agencies.

Generally, activities undertaken by Zone 13 consist of the following:

1. Funding the implementation of the Water Forum Agreement, which includes the Successor Effort and the Habitat Management Element. This effort is aimed at the reduction of groundwater overdraft, the protection of ground and surface water quality, increased water conservation, and utilization of existing surface water entitlements in a way that preserves the fishery, wildlife, recreational, and aesthetic values of the lower American River.
2. Conducting water supply studies and planning projects to maintain the long term reliability of existing water supplies and to secure additional water supplies to meet human and environmental needs for the future. This includes monitoring and conducting studies on groundwater availability and groundwater quality, protecting and preserving groundwater quality, securing surface water to be used conjunctively with groundwater to halt regional groundwater decline, and activities pertaining to maintenance of flows in the lower American River.
3. Conducting drainage and flood control studies and planning directed toward reducing damage to property and danger to people from flooding.
4. Revising floodplain maps and formulating flood control plans and projects, to prevent damage

to property and danger to people from flooding.

5. Implementing the National Flood Insurance Program through regulations and monitoring, investigation of flood control problems, and assisting property owners and businesses in seeking flood damage aid.
6. Keeping current on all flood control and water supply matters affecting the Agency and participating in actions required in support of the Agency's positions relative to flood control and water supply in legislative and water rights hearings, at conferences and association meetings, and in other forums. These activities are aimed at influencing legislation, water rights decisions, and decisions of other agencies to benefit the needs of the Zone.
7. By developing and maintaining a countywide natural disaster mitigation plan, the County remains eligible for discounted flood insurance rates and for disaster mitigation grant funds before and after a natural disaster is declared.

COST ESTIMATES

The estimated Fiscal Year 2006-2007 Final Budget for Zone 13 is shown on Tables Ia and Ib. Estimated costs of individual study and projects are provided in Table Ic. The assessment needed to fund the Zone 13 program is estimated to be \$2,175,605. The remainder of the funding required will come from fund balance, and other sources.

ZONE FINANCING/ASSESSMENT METHODOLOGY

Zone 13 will continue the use of the methodology approved by the Water Agency Board of Directors in 1989. This methodology is as follows:

Each assessable parcel of land within Zone 13 has been assigned to a benefit category that represents its current zoning. Each benefit category is assigned a benefit factor, and the benefit factors are the same factors used by the American River Flood Control District and are set forth in Section 17(b)(4) of the American River Flood Control District Act. The benefit factor for each parcel is multiplied by its net area to arrive at a benefit product, and then the amount of assessment on each parcel of land within Zone 13 is determined by multiplying the benefit product of the parcel by the estimated annual total expenses of Zone 13, divided by the sum of the benefit products of all the parcels of land in Zone 13.

Benefit categories and corresponding land uses are listed in Table II, and typical assessments are shown in Table III.

FINDINGS

In order to support the special assessment, the Board of Directors must make a number of findings after a properly noticed public hearing at which facts supporting these findings are presented. The following are the necessary findings and the facts supporting them:

- 1. The activities to be funded by the Zone 13 special assessment are improvements which further the objectives and purposes of the *Agency Act*, and while these activities may incidentally benefit the public at large, they are primarily for the accommodation and convenience of the inhabitants of Zone 13.**

In 1991, the City of Sacramento, County of Sacramento, and Sacramento County Water Agency formed the City-County Office of Metropolitan Water Planning (CCOMWP) and charged it with developing a comprehensive area-wide water supply plan. CCOMWP's 1992 workplan outlined the efforts needed to stabilize groundwater levels, utilize existing surface water entitlements, and manage the groundwater basin. In 1993, CCOMWP efforts focused on utilizing a collaborative process involving stakeholder interest groups to further develop a comprehensive, long-range, regional water supply plan. This process, called the Sacramento Area Water Forum (Water Forum), encompassed numerous studies that were essential in development of a regional water supply plan. In 1999 the Sacramento County Water Agency approved this regional water supply plan known as the Water Forum Agreement which had the two-fold objective of providing a reliable safe water supply for development through the year 2030 and protecting the recreational and environmental benefits of the Lower American River. The Water Forum Agreement provides for additional activities to be conducted as part of the Water Forum Successor Effort.

These Water Forum Agreement Successor Effort activities funded in part by the Zone, and other Zone-funded studies and activities are directed toward providing reliable long-term water supplies to the Zone. Adequate water and reliable water supplies are of critical importance to existing residents, businesses, and agriculture. Inadequate supplies would significantly affect economic development in the Zone. Meeting the challenge of developing a safe, reliable water supply furthers the objectives and purposes of the *Agency Act*.

Groundwater supply in the Rancho Cordova area has been significantly affected by spreading groundwater contamination originating at the Aerojet property and at the former Mather Air Force Base (Responsible Parties). Projected water demands in this service area exceed the available capacity of uncontaminated groundwater. The Responsible Parties are under order by various regulating agencies (USEPA, California Regional Water Quality Control Board, and Department of Toxic Substances Control) to remediate groundwater contaminants near these areas. Of particular concern are the chemical perchlorate and NDMA, and volatile organic chemicals (VOCs) such as NDMA, and TCE. SCWA has taken a leading role in the effort to identify methods of making remediated groundwater available for beneficial use within the basin. Remediation and reuse of the contaminated water benefits the entire county, therefore legal costs for pursuing damages from these Responsible Parties are recovered under Zone 13.

Declining groundwater levels have been documented in many studies including the following recent studies: the *Sacramento County Groundwater Model Development and Basin Groundwater Yield Study* (1993) developed for the Sacramento County Water Agency, the *American River Water Resources Investigation* (1996) by the U.S. Bureau of Reclamation and the Sacramento Metropolitan Water Authority, and the California Department of Water Resources' *California Water Plan Update, Bulletin 160-98* (1998).

Because of these concerns Zone 13 is funding the ongoing effort by the Central Sacramento County Groundwater Forum which consists of a diverse group of agricultural and agricultural-residential groundwater users, business, environmental/community organizations, local governments/public agencies, and water providers. The Groundwater Forum has determined there is the potential for further decline and negative impacts to the central Sacramento County Groundwater Basin and that a viable governance structure is necessary to implement a basin wide groundwater management plan. The Groundwater Forum is also tasked with formulating a governance structure necessary to implement a basin wide groundwater management plan that is favorable for environmentalists, business groups, water suppliers, local governments and citizen groups.

The floods of 1986, 1995, and 1997 caused widespread damage throughout Sacramento County and Zone 13. The US Army Corps of Engineers estimates that the floodplain areas in Sacramento County contain 390,000 people and \$36 billion in damageable property; the threat to life and property from flooding is significant and average annual flood damages are estimated at about \$165 million. The Zone also funds floodplain remapping efforts.

Zone 13 funds the administration of the National Flood Insurance Program (NFIP). This program includes regulation of floodplains and new construction consistent with NFIP regulations and policy, enabling property owners to purchase federally backed flood insurance. Flood insurance is required by all issuers of federally backed mortgages for structures lying within the 100-year floodplain and rates for federally backed insurance policies are a fraction of the rates charged by private insurers.

The NFIP Community Rating System (CRS) is an incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions. Zone 13 allows for participation in the CRS program which has resulted in a 25 percent discount from standard NFIP insurance rates. There are currently close to 19,000 federally backed flood insurance policies in our community. As a result of Zone 13's funding of the participation in the NFIP, property owners in the unincorporated portions of Zone 13 holding flood insurance policies annually save approximately \$2,000,000.

Zone 13 also funds drainage studies to identify potential projects that will reduce flood risks and damage to properties within the Zone. Studies planned include:

- *Arcade Creek watershed* - Evaluations of potential reductions in flood flows along natural streams in the North County area and the City of Citrus Heights, such as the south branch of Arcade Creek. This study will determine the feasibility of increasing the capacity of proposed stormwater detention facilities and potential methods for protecting existing at-risk structures from flooding.
- *Cosumnes River* – Several study and planning efforts are underway looking for solutions to flooding problems along the Cosumnes and Mokelumne Rivers. Zone 13 participates in these efforts to find solutions that not only reduce flooding but also have the potential to provide a variety of benefits to the community as a whole.
- *Beach-Stone Lakes* – Evaluating the environmental impact of potential construction of the Board-approved flood control plan for the Beach-Stone Lakes area is planned in the coming year.

The City of Sacramento and the other incorporated cities except Citrus Heights, Elk Grove, and Rancho Cordova conduct their own planning, investigations, and other activities associated with regional flood control and water supply. Water Agency staff believes that the existing water districts, irrigation districts, and other water purveyors in the unincorporated area, Citrus Heights, Elk Grove and Rancho Cordova find the Zone 13 special benefit assessment to be the most economically practical means of funding comprehensive resource management investigations and water supply plans within their jurisdictions.

2. **The real property within Zone 13 is specifically benefited by these activities which are designed to diminish the danger of floods and increase the stability of the water supply.**

The activities shown in Table Ic are necessary to determine what steps need to be taken to protect property from the risk of damage to flooding, as well as to determine how to provide a stable water source for the properties in Zone 13 at an economical cost.

Without additional flood control and drainage facilities, individual properties may be required to protect themselves at greatly increased costs and with potential adverse consequences to other properties. Individual flood control methods may conflict with one another or property owners may drain their properties and flood adjoining or downstream properties, and thereby imperil other properties by increasing the risk of flooding and property damage to these properties. Property owners will benefit by the decreased cost of flood insurance, and in many cases the need for flood insurance will be eliminated.

Zone 13 funds studies and programs to provide a stable water supply to Zone 13. The beneficial use of properties in Zone 13 is significantly limited without a reliable water supply.

Declining groundwater levels throughout the Zone can cause a deterioration of groundwater quality, land subsidence; accelerated migration of groundwater contamination plumes and increases the cost of groundwater pumping. Poor water quality may result in the need for water treatment; land subsidence may require the replacement of critical conveyance facilities and repair of property damage; and migration of groundwater contamination plumes may require the provision of alternative water supplies and/or the need for specialized water treatment facilities, all at greatly increased cost to property owners. Zone 13 planning studies and programs seek methods to avoid these problems and to assure the reliability and

affordability of the local water supply.

3. **The amount of the Zone 13 special assessment is the amount estimated to be the actual cost of providing the activities to be funded by the special assessment.**

Zone 13 program costs were developed by reviewing prior years' actual costs associated with services that are ongoing, determining, based on engineering judgment, what studies and other efforts need to be undertaken, and estimating the costs of these studies based on similar past studies. Other financing sources were also considered in determining what amount will be funded by the annual special assessment of Zone 13.

4. **The land use-area method of levying the Zone 13 special assessment is a method that will levy the assessment in proportion to the benefits received.**

The proposed land use-area method of assessment meets the test that assessments must be proportional to benefits. The land use-area method of levying assessments has been used extensively throughout the state to equitably spread the cost of services and improvements to benefited properties. Historically the need for water and flood protection has been directly related to land use and parcel size. Agencies levying similar benefit assessments under the same land use-area method include the American River Flood Control District, State (Levee) Maintenance Areas 9, 10, and 11, and the Fresno Metropolitan Flood Control District. These assessments have proven acceptable to the landowners in their respective areas and have been sanctioned by the Legislature through enactment of legislation (*The Benefit Assessment Act of 1982*).

Benefit categories have been established to equitably apportion the benefits amongst the different land uses in Zone 13. These categories were established based on empirical evidence from across the nation and locally to reflect the level of benefit associated with flood protection and water supply management. For example, commercial land uses pay a higher assessment than residential properties. The fact that commercial land uses have approximately double the storm drainage runoff that residential properties have, due to the amount of impervious land areas in commercial sites, has been well documented. Studies such as the Nolte Study done for Sacramento County have also shown that storm runoff is nearly doubled for commercial areas as compared to residential areas. These facts support the higher assessment of commercial properties.

Studies have identified significant groundwater decline in both agricultural and urban areas of Zone 13. The problem in urban areas is more challenging than in agricultural areas because urban areas require higher quality potable water. For example, groundwater treatment for naturally occurring iron and manganese approximately doubles the cost of potable water production. Man-made groundwater contamination is very costly to treat or to provide alternative replacement water supplies.

Usage of water, like storm drainage runoff, is also proportional to parcel size. Studies to find solutions to these problems, which directly relate to real property, are funded by the Zone 13 special benefit assessment.

Considering these relative benefits, benefit factors are assigned to different land uses. Generally, all single family residential zoned properties are assigned a benefit factor of five and all commercial, industrial, and multi-family land uses are assigned a benefit factor of 10. In addition, all wastelands and unusable lands are assigned a benefit factor of zero because the properties receive no benefit from the Zone. Finally, agriculture is assigned a benefit factor of one because generally runoff from these properties is contained on the properties and potable quality water is not required.

The benefit factor for each parcel is multiplied by its net area to arrive at a benefit product, and then the amount of assessment on each parcel of land in Zone 13 is determined by multiplying the benefit product of the parcel by the estimated annual assessment revenue requirement of Zone 13, divided by the sum of the benefit products of all the parcels of land in Zone 13.

CONCLUSION

As illustrated by the findings presented, the properties subject to the Zone 13 special benefit assessment derive a special benefit from the programs and studies funded by Zone 13.

TABLE Ia
SACRAMENTO COUNTY WATER AGENCY ZONE 13
ESTIMATED 2006-2007 PROPOSED BUDGET
FINANCING USES

Memberships		\$ 25,600
Legal notices, printing, postage & other operating expenses		3,392
Accounting, assessment collection services, auditing and purchasing		115,000
Municipal Services Agency services:		
Water Supply	\$ 266,688	
Flood Control/ Drainage	303,178	
Other	<u>66,486</u>	
	\$636,352	636,352
Engineering services – see detail schedule TABLE Ic		300,000
Legal services – see detail schedule TABLE Ic		315,000
Environmental, public outreach and other professional services		115,500
Contributions to other agencies/funds – see detail schedule TABLE Ic		<u>1,168,333</u>
TOTAL OPERATING NEEDS		\$ 2,679,177
Provision for Reserves		<u>\$679,559</u>
TOTAL REQUIREMENTS		<u>\$3,358,736</u>

TABLE Ib
SACRAMENTO COUNTY WATER AGENCY ZONE 13
ESTIMATED 2006-2007 PROPOSED BUDGET
MEANS OF FINANCING

Estimated fund balance available, June 30, 2006		\$1,095,131
Fees for Minimum Floor Elevations		30,000
Interest Income and late penalties		<u>58,000</u>
	SUBTOTAL	1,183,131
2006-2007 Benefit Assessment		2,175,605
	TOTAL FINANCING	<u>\$ 3,358,736</u>

TABLE Ic
SACRAMENTO COUNTY WATER AGENCY ZONE 13
ESTIMATED 2006-2007 PROPOSED BUDGET
BUDGET DETAIL – ENGINEERING & LEGAL SERVICES
AND CONTRIBUTIONS TO OTHER AGENCIES/FUNDS

ENGINEERING SERVICES:

Groundwater Management Studies	\$ 100,000
Robla/Magpie/Cripple Creeks Hydrology Studies	100,000
Miscellaneous Engineering Studies	<u>100,000</u>

TOTAL ENGINEERING SERVICES \$ 300,000

LEGAL SERVICES

Freeport Diversion Regional Project	\$ 115,000
Water contracts & Water Rights	16,000
Water Forum Agreement Implementation	31,000
Protection of In-County Groundwater Supplies	<u>153,000</u>

TOTAL LEGAL SERVICES \$ 315,000

CONTRIBUTIONS TO OTHER AGENCIES/FUNDS:

Water Forum Agreement Implementation	\$ 500,000
Water Forum Habitat Mitigation Program	330,000
Cosumnes/Elk Grove Recycled Water Reimbursement	50,000
Central Sacramento County Groundwater Forum Mgmt Plan	150,000
MOU with So. Sacramento County Ag Water Authority	125,000
Planning Department allocation	<u>13,333</u>

TOTAL CONTRIBUTIONS TO OTHER AGENCIES/FUNDS \$1,168,333

TABLE II

SACRAMENTO COUNTY WATER AGENCY ZONE 13 PROPOSED METHOD OF ASSESSMENT

All parcels of land within the Zone except those described in Paragraphs (a) and (b) below are to be assessed upon the basis of their total area as shown on the Sacramento County Assessor's Records.

- (a) Any parcel of land less than one (1) acre is to be deemed to be one (1) acre.
- (b) The maximum assessment will be based on twenty (20) acres for all categories of land use.
- (c) All parcels in the same ownership under Williamson Act contracts will be treated as one parcel.
- (d) Contiguous agricultural zoned (Benefit Category II) parcels under a single ownership; larger than 5 acres; created for financing, property line adjustment, or other administrative reasons; shall be treated as one parcel provided that those contiguous parcels are entitled to only one single family home and this adjustment is requested from the Agency Engineer.

Each assessable parcel of land within the Zone is to be assigned to a Benefit Category that represents its current predominant land use capability as follows:

BENEFIT CATEGORY I. (Waste or Unusable Land): Benefit Factor - 0

- (a) All parcels of land having an assessed value as shown on the current Assessment Roll of the County of Sacramento equal to or less than \$500.00, except taxable cemeteries and taxable lands owned and used by any public or private utility company.
- (b) All land shown on the Sacramento County Assessor's Records as having any of the specific land uses as follows:

Walkway, Bridle Path, Hiking Trail, Drainage Ditch, Eroded or Waste Land, Flood Plain, Irrigation System, Levee, Park, Greenbelt, Private Road, Too Small to Use, Dredge Tailings, Utility Service lines, and Well Sites.
- (c) All land having a zoning classification of "Delta Waterways" DW, DW-T, DW-R, DW-S
- (d) Land having a zoning classification of "ZOO" or "SPA" that the Agency Engineer has determined is in BENEFIT CATEGORY I.

BENEFIT CATEGORY II. (Agriculture): Benefit Factor - 1

- (a) All taxable cemetery land.
- (b) All land having any of the zoning classifications as follows:

AG-160, (T)	A-80, (F),(S),(T)	AR-20
AG-80, (F),(S),(T)	A-20, (F),(T)	AR-10, (F), (T)
AG-40, (F),(T)	A-10, (F),(S),(T)	AR-5, (F),(T)
AG-20, (F),(T)	A-5, (F),(P),(T)	AR-00, (T)
AG-00, (F),(T)	A-00, (F),(T)	1R
O, (T),(F),(S),(X),(Z),(N)	RR, (F),(T)	0 (Zero)
IR, (S),(F),(T),(5)	UR, (T)	
- (c) Land having a zoning classification of "ZOO" or "SPA" that the Agency Engineer has determined is in BENEFIT CATEGORY II.

BENEFIT CATEGORY III. (Single Family Residential): Benefit Factor - 5

- (a)

AR-2, (F),(T),(N),(Z)	A-2, (F),(O),(P),(T)	R-1
AR-1, (F),(T),(X)	A-2B	R-1A, (P),(T)
RD-1, (F),(N),(T),(X),(Z)	A-1A, (P),(T)	R-1B, (P),(T)
RD-2, (F),(N),(O),(P),(T),(X),(Z)	A-1B	R-1C
RD-3, (N),(P),(T),(X),(Z),(F)	RE-3	R-00, (3)
RD-4, (N),(T),(X),(Z)	RE-2A	RM-2, (P),(T)
RD-5, (F),(N),(P) (T),(X),(Z)	RE-2, (N),(P)	RM-00, (T)
RD-7, (F),(M),(N),(T)	RE-1, (N),(P)	
RD-00, (3),(4),(T)		
- (b) All land having any of the zoning classifications "RD-10", "RD-15", "RD-20", "RD-25", "RD-30", "RD-40", "BP", "SC", or "LC" shown on the Sacramento County Assessor's Records as having a specific land use of "Condominium", "Residential Planned Unit Development", "Row House" or "One-half Plex."
- (c) Lands having a zoning classification of "RD-10", "RD-15", or "RD-20" and having a land use of "Single-family Residential" and lands having a zoning classification of "RM-1" and having a land use of a "Residential Mobile-home".
- (d) All land having a zoning classification of "ZOO" or "SPA" unless a determination has been made by the Agency Engineer that the land is in another BENEFIT CATEGORY.
- (e) All other land not described in the other Benefit Categories.
- (f) All land having the zoning classifications "R-2" or "R-3" and having a land use of "Single-family Residential".

BENEFIT CATEGORY IV: (Commercial, Industrial, and Other): Benefit Factor - 10

- (a) All taxable land owned or used by a public or private utility company except land shown on the Sacramento County Assessor's Records as having a specific land use of Utility Service Lines or Well Sites.
- (b) All land having any of the zoning classifications as follows:

RD-10, (F),(M),(N),(P),(T),(X),(Z)	BP, (F),(N),(P),(T),(X)
RD-15, (F),(M),(N),(P),(T),(X),(Z)	SC, (F),(N),(P),(T)
RD-20, (F),(N),(T),(X),(Z)	LC, (F),(N),(P),(S),(T),(X),(Z)
RD-25,	GC, (F),(N),(T),(Z)
RD-30, (F),(N),(P),(T),(X)	AC, (T)
RD-40	TC, (F),(T)
RM-1, (F),(T),(Z)	CO, (F),(N),(P),(T)
R-2A, (P),(T)	RT, (H)
MP, (F),(P),(T),(X)	SP, (T)
M-1, (F),(N),(P),(S),(T)	CC
M-2, (F),(N),(S),(T)	C-1
M-00, (S),(T)	C-2
- (c) All land having any of the zoning classifications, "RD-10", "RD-15", "RD-20", "RD-25", "RD-30", "RD-40", "BP", "SC" or "LC" except those shown on the Sacramento County Assessor's Records as having specific land use of "Condominium", "Residential Planned Unit Development", "Row House", or "one-half Plex", or "Single-family Residential".
- (d) All land having a zoning classification of "ZOO" or "SPA" that the Agency Engineer has determined is in BENEFIT CATEGORY IV.
- (e) All land having the zoning classifications "R-2" or "R-3" except those shown on the Sacramento County Assessor's Records as having specific land use of "Single-family Residential".

BENEFIT CATEGORY V. (Exempt): Benefit Factor - 0

- (a) All land which is exempt.

All tax-exempt cemetery land and all land owned or used by any federal or state governmental agency or another local agency is exempt from the special assessment.

TABLE III

**SACRAMENTO COUNTY WATER AGENCY ZONE 13
PROPOSED 2006-2007 ASSESSMENTS**

Parcel Size (Acres)	Zoning		
	Agricultural	Residential	Commercial
1 or Less	1.39	6.94	13.89
5	6.94	34.71	69.43
10	13.89	69.43	138.87
20	27.77	138.87	277.73
40	27.77	138.87	277.73
100	27.77	138.87	277.73

TOTAL ASSESSMENT - ZONE 13: \$2,175,605