

FINAL
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
IMPLEMENTATION PLAN FOR MITIGATION PROGRAM --
FISCAL YEARS 1997-2001

Prepared by MPWMD Staff, October 1996

I. INTRODUCTION

This "Implementation Plan for Mitigation Program -- Fiscal Years 1997-2001" (hereinafter referred to as the "Implementation Plan" or "Plan") functions as a blueprint for mitigation activities to be carried out by the Monterey Peninsula Water Management District (MPWMD) for the period July 1, 1996 through June 30, 2001, which encompasses fiscal years (FY) 1997-2001. The Plan was developed by MPWMD staff in response to MPWMD Board direction in May 1996 to provide a blueprint for major mitigation projects and costs over the next five years. The Plan describes ongoing mitigation activities as well as new projects planned for the FY 1997-2001 period.

The Plan is a companion document to a separate District report entitled, "Evaluation of Five-Year Mitigation Program for FY 1991-1996" (hereinafter referred to as the "Evaluation Report"). The Evaluation Report describes and assesses the success of the mitigation program adopted by the MPWMD Board in November 1990, when it certified the MPWMD Water Allocation Program Final Environmental Impact Report (EIR). The EIR addresses the effects of different levels of water production on the environment, particularly the Carmel River and associated flora and fauna. A Draft Evaluation Report was prepared for Board and public review in May 1996; the Final Evaluation Report was received by the Board in October 1996.

The comprehensive mitigation program adopted in November 1990 has been carried out by MPWMD since FY 1991 to reduce adverse impacts of water extraction on steelhead, riparian vegetation and wildlife, lagoon vegetation and wildlife, and aesthetic values associated with the Carmel River. Supporting these programs is a hydrologic monitoring program which provides information on surface and ground water resources needed to implement various mitigation projects. Funding for the mitigation program is primarily from a user fee on water bills of customers who derive their water supply from the Monterey Peninsula Water Resources System. California-American Water Company (Cal-Am) serves about 95 percent of water customers within the District. A separately funded conservation program contributes to environmental restoration by reducing the amount of water extracted from the water resources system. Please refer to Section I of the Evaluation Report for more detailed background information.

At its May 20, 1996 meeting, the District Board received the Draft Evaluation Report and held a public hearing to receive public comment on it. Staff was directed to prepare a final report incorporating Board and public comments. Additional cost information and a blueprint of future projects was requested by the Board. At the same meeting, after a separate public hearing, the Board determined that the MPWMD, rather than Cal-Am, should continue to fund the mitigation program for the next five-year period (FY 1997-2001). This issue was brought before the MPWMD Board because a condition of the State Water Resources Control Board Order No. WR 95-10 requires Cal-Am to carry out any component of the District's original Five-Year

Mitigation Program that the MPWMD does not continue after June 1996.

II. DEVELOPMENT OF IMPLEMENTATION PLAN

Each pertinent section of the Evaluation Report provides MPWMD staff recommendations for the fiscal year (FY) 1997-2001 period to optimize the respective resource programs and maximize effectiveness of MPWMD mitigation efforts. A compilation of these recommendations is provided as Appendix A. However, because of revenue, budget, staff, resource, time and institutional constraints, not every recommendation described in the Evaluation Report can be implemented in the FY 1997-2001 period. The MPWMD staff, comprised of professionals in the fields of fishery biology, hydrology, riparian ecosystem management, engineering and planning, prioritized the recommendations in light of the above-mentioned constraints to develop the continuing and new activities described in the Implementation Plan. This process was based on the following assumptions:

- (1) Revenue for the FY 1997-2001 period was estimated based on continuation of the existing MPWMD user fee on the Cal-Am water bill, the primary source of funding for the Mitigation Program, as well as projected Cal-Am sales described in its 1996 rate increase application before the Public Utilities Commission. Other sources of revenue include existing carry-over funds, federal grants, property taxes, interest on accounts, capital equipment reserves and others (see Section III-C for more information).
- (2) The existing 6.015 percent user fee on water bills slated to fund the Mitigation Program is assumed to remain over the five-year period, unless a severe drought or similar emergency compels the need for additional funding. User fee revenues alone are estimated to total \$6.65 million over the five-year period.
- (3) An estimated carry-over fund of about \$1.77 million is planned to be used up during the 1997-2001 period, except a total of \$500,000 would be reserved -- \$250,000 for flood emergency and \$250,000 for drought emergency. These reserve amounts would be increased over time to account for inflation.
- (4) Projected expenses do not exceed projected revenues (including the carry-over amounts) over the five-year period. Factors for inflation are included in all future cost estimates.
- (5) The FY 1997 mitigation program budget was set by the MPWMD Board when it approved the overall District budget in June 1996; the remaining four years are estimated in this Plan. The actual budget amount for each subsequent fiscal year will be determined by the Board through the annual MPWMD budget development and approval process.
- (6) No additional full-time staff members would be hired. Consultants, temporary contract positions, student interns and other part-time assistance would continue to contribute to staff efforts.
- (7) With each new, major capital project (e.g., erosion protection project), there are increased operation and maintenance costs as well as staffing needs that continue for every

subsequent year after the project construction. These are in addition to existing annual operation and maintenance activities, which would be continued.

III. PROJECTS AND ACTIVITIES FOR FY 1997-2001

With the above assumptions and constraints in mind, staff developed a time-table for major capital projects, as requested by the District Board at its May 1996 meeting. These are shown in **Table 1**, which summarizes capital projects estimated to cost at least \$50,000, including new projects as well as major repair projects. The table does not include costs associated with smaller new projects or existing projects and activities. Total costs for the FY 1997-2001 mitigation program as a whole are shown in **Table 2**. A detailed breakout of estimated costs is provided in **Appendix B**.

A. Major Capital Projects

As shown in **Table 1**, a total of nine major capital projects are scheduled in FY 1997-2001 -- five erosion protection projects, three steelhead resource projects, and development of a geographic information system (GIS). Two of the five erosion protection projects are new; the other three will repair damage caused by the March 1995 flood disaster. In order of projected implementation, the erosion protection projects include:

- C Manor and Pryor Project Complex (flood repair),
- C Schulte Project (flood repair) and Red Rock Project (new construction),
- C Valley Hills and Scarlett Project Complex (flood repair),
- C DeDampierre Project (flood repair),
- C All Saints Project (new construction).

These specific projects and order of implementation were based on the degree of damage incurred by the March 1995 flood disaster, progress on state and federal permits for each project, location along the river, and erosion potential. Though not designated in the table, the District has identified alternative projects if the necessary property owner permission, permits or other requirements cannot be obtained for the priority projects listed. These alternative projects would substitute for the primary projects identified in **Table 1**.

Table 1
SUMMARY OF MAJOR CAPITAL PROJECTS, FY 1997-2001
Projects over \$50,000 estimated capital cost

FY 1996-97	FY 1997-98	FY 1998-99	FY 1999-00	FY 2000-01
Manor and Pryor erosion protection projects (flood repair); \$259,000	Schulte (flood repair) and Red Rock erosion protection projects; \$211,000	Valley Hills and Scarlett erosion protection projects (flood repair); \$101,800	DeDampierre erosion protection project (flood repair); \$218,500	All Saints erosion protection project; \$281,400
Complete construction of Sleepy Hollow fishery facility; \$134,300 (includes pipeline to be built in FY 1997-98)		Mid-Valley fish holding facility; \$281,000		
Spawning habitat restoration project (flood repair); \$79,000		Geographic information system; \$150,000		

Cost estimates are rounded to the nearest \$100.
Fiscal years begin on July 1 and end on June 30.

The three major fishery projects include:

- C Sleepy Hollow Rearing Facility (completion of project underway),
- C Spawning Habitat Restoration Project (flood repair),
- C Mid-Valley Holding Facility (new construction).

With the development of a GIS system, the estimated total capital cost for these nine projects is roughly \$1.7 million, including about \$1.1 million for the five erosion protection projects, \$494,000 for the three steelhead projects, and \$150,000 for the GIS system. Each project also entails operations and maintenance (O&M) costs, which are discussed below. The costs shown in **Table 1** are for consultants and contractors needed to construct the projects, and do not include the many hours of staff time required to implement projects. Staff activities include planning, project design, environmental review, obtaining necessary permits (federal, state and local), developing bid packages, retaining and supervising contractors, contract administration, project maintenance, monitoring, evaluation, and technical reporting for each project. The District goal is to use in-house resources as much as possible to minimize costs.

B. Summary of Program Costs

Major Program Elements: The estimated total costs associated with the Mitigation Program for FY 1997 through FY 2001, broken out by five major program components that reflect hydrology, riparian, fishery, lagoon and other goals, are provided in **Table 2**. The cost estimates include the nine major projects described in Section III-A above (including O&M costs), as well as continuation and improvement of existing programs, which entail many smaller projects, equipment needs, specialized consulting services, and other resources that cost less than \$50,000. Examples of “smaller” costs include:

- C repair, replace and upgrade monitoring equipment,
- C cartographic services to update and develop area management maps,
- C tubing and other components to improve and repair vegetation irrigation system,
- C new irrigation well,
- C contract with California Conservation Corps for channel clearing,
- C plant stock for restoration planting,
- C information materials for river-front property owners,
- C fish rescue equipment and supplies,
- C equipment and supplies needed to maintain fishery facilities,
- C laboratory analysis of lagoon water samples.

A detailed listing of smaller projects and maintenance costs is provided in **Appendix B** (pages 1 and 2). The costs listed in the appendix for specific activities do not include the staff work necessary to carry out the activities. (Please refer to the “Personnel” subsection below for a discussion of staff costs.)

TABLE 2-- SUMMARY OF PROGRAM COSTS AND REVENUES

ESTIMATED COSTS FOR ALLOCATION MITIGATION PROGRAM. JULY 1996 - JUNE 2001						
ACTIVITY	1996-97	1997-98	1998-99	1999-00	2000-01	Total
EXPENDITURES						
Personnel Costs (see Note 1)	\$738,159	\$760,304	\$783,113	\$806,606	\$830,804	\$3,918,986
Services and Supplies (see Note 1)	\$209,169	\$215,444	\$221,907	\$228,565	\$235,422	\$1,110,507
Other Fixed Assets	\$42,300	\$11,200	\$30,000	\$21,000	\$51,808	\$156,308
Program Expenses by Element						
Hydrologic, Water Quality and Climatic Monitoring	\$25,794	\$18,260	\$19,163	\$20,348	\$21,388	\$104,953
Riparian Corridor Management Program						
Erosion Protection Projects	\$269,000	\$221,300	\$112,455	\$240,400	\$309,515	\$1,152,670
Channel Clearing	\$13,500	\$13,905	\$14,322	\$14,752	\$15,194	\$71,673
Erosion Protection Monitoring	\$500	\$0	\$0	\$0	\$0	\$500
Vegetation Irrigation Program	\$49,000	\$66,570	\$30,157	\$33,262	\$36,385	\$215,374
Other Riparian Corridor Management Program Activities	\$34,100	\$8,858	\$9,124	\$9,397	\$9,679	\$71,159
Vegetation, Soils, & Wildlife Monitoring	\$37,000	\$30,500	\$32,000	\$33,500	\$35,000	\$168,000
Fishery Program	\$260,518	\$117,410	\$315,808	\$38,322	\$42,128	\$774,187
Lagoon Vegetation and Wildlife Monitoring	\$3,850	\$876	\$902	\$929	\$957	\$7,513
Other Mitigation Fund Expenditures	\$256,592	\$31,500	\$182,500	\$83,627	\$86,182	\$640,401
PROGRAM EXPENSES SUBTOTAL	\$949,854	\$509,179	\$716,431	\$474,537	\$556,428	\$3,206,429
Capital Equipment Reserve						\$0
Election Expense	\$0	\$71,000	\$0	\$73,130	\$0	\$144,130
Contingency (see Note 2)	\$35,524	\$36,791	\$48,417	\$36,205	\$42,183	\$199,120
Total Expenditures, excluding emergency reserves	\$1,975,006	\$1,603,917	\$1,799,869	\$1,640,043	\$1,716,644	\$8,735,479
REVENUES						
Property Tax	\$229,837	\$50,000	\$50,000	\$50,000	\$50,000	\$429,837
Project Reimbursement	\$57,000	\$7,000	\$7,000	\$7,000	\$7,000	\$85,000
User Fee Revenue	\$1,236,820	\$1,256,674	\$1,268,171	\$1,302,988	\$1,587,347	\$6,652,000
Grants (Federal Emergency Management Agency)	\$263,939	\$70,000	\$38,000	\$69,000	\$0	\$440,939
Interest (5% of Carryover and Emergency Reserve)	\$0	\$50,842	\$46,982	\$37,625	\$33,687	\$169,135
Encumbered Construction Funds	\$136,000	\$0	\$0	\$0	\$0	\$136,000
From Capital Equipment Reserve						\$0
Total Revenue	\$1,923,596	\$1,434,516	\$1,410,153	\$1,466,613	\$1,678,034	\$7,912,911
Revenues-Expenses	(\$51,410)	(\$169,402)	(\$389,716)	(\$173,430)	(\$38,611)	(\$822,568)
Fund Adjustments						
Less Designated Reserves						
- 1996-97 Reserves	(\$180,390)					(\$180,390)
Less Reserve-Prepaid Expenses (Rent, Insurance)	(\$4,200)					(\$4,200)
Less Emergency Reserves						
- Establish Flood Emergency Reserve	(\$250,000)	(\$7,500)	(\$7,725)	(\$7,957)	(\$8,195)	(\$281,377)
- Establish Drought Emergency Reserve	(\$250,000)	(\$7,500)	(\$7,725)	(\$7,957)	(\$8,195)	(\$281,377)
Carryover Revenue (from previous year)	\$1,769,663	\$1,033,663	\$849,261	\$444,095	\$254,752	\$1,769,663
Fund Balance (Rev.-Exp.-Fund Adj.+Carryover)	\$1,033,663	\$849,261	\$444,095	\$254,752	\$199,750	\$199,750

Footnotes - Shaded boxes indicate proposed change to budget adopted on June 17, 1996.

- Costs inflated at 3% per year.
- For FY 1996-97, 3% of Service and Supplies, Fixed Assets, and Program Expenses. For FY 1997-2001, 5%.

The fifth program element, entitled “Other Mitigation Fund Expenditures,” estimates the contribution by the mitigation program fund toward District-wide programs such as development of a GIS system, public information program, retrofit-rebate program and ground water investigations. These expenditures are itemized in **Appendix B**.

The total program expenses for the five program elements are estimated to be \$3.21 million over the five-year period. As shown in **Figure 1**, the riparian program constitutes the bulk of the Mitigation Program costs (52 percent), with the steelhead fishery program accounting for 24 percent of costs. Significantly, the category for other indirect mitigation measures (such as the MPWMD toilet rebate program) that do not directly relate to the Carmel River comprises 20 percent of the total program expenses. **Figure 2** shows that roughly two-thirds of the project expenses will occur in the first three years of the program.

Personnel: The estimates in **Table 2** also include costs for District personnel, services and supplies, and fixed assets. The District personnel costs include staff members who carry out the Mitigation program as well as a proportion of the cost of all other staff who may indirectly contribute to the program (e.g., General Manager, administrative services). The proportions of each staff member’s total compensation (salary, benefits and other costs) which are funded by various District programs are itemized in the annual budget approved by the Board each year. The personnel costs reflect many activities carried out by District staff that do not entail capital or O&M expenses; a listing of these activities is provided in **Table 3**. A detailed discussion of staff activities is provided in the separate Evaluation Report. Personnel costs are estimated to total \$3.92 million over the five-year period.

Services and Supplies, Fixed Assets: The estimated total for services and supplies and fixed assets over the five-year period is \$1.11 million and nearly \$156,300, respectively. Services and supplies refer primarily to “overhead” items (rent, utilities etc) for the District to function as an agency; the Mitigation Program funds a portion of those costs. Fixed assets refer to major equipment such as vehicles, copiers and computer hardware and software, which must be replaced after several years of use.

Total Program Cost: The Mitigation Program as a whole, including all of the costs described above, in addition to a share of election expenses and a contingency amount is estimated to total \$8.74 million for the FY 1997-2001 period. This amount does not include the \$500,000 flood and drought emergency reserve described earlier, nor accounting adjustments for a capital equipment reserve. The emergency reserve is not expected to be used, but is budgeted in case it is needed. As shown in **Figure 3**, personnel costs and program expenses account for about 45 percent and 37 percent, respectively, of the total program cost; the relatively high percentage for personnel is due to the labor-intensive nature of the work involved as well as reliance on in-house expertise to carry out the programs.

FIGURE 1

Comparison of Program Expenses for Allocation Mitigation Program

July 1996 - June 2001

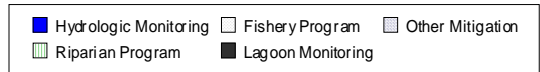
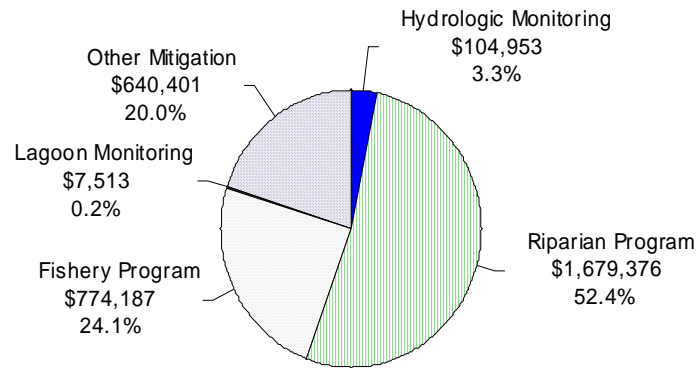


FIGURE 2

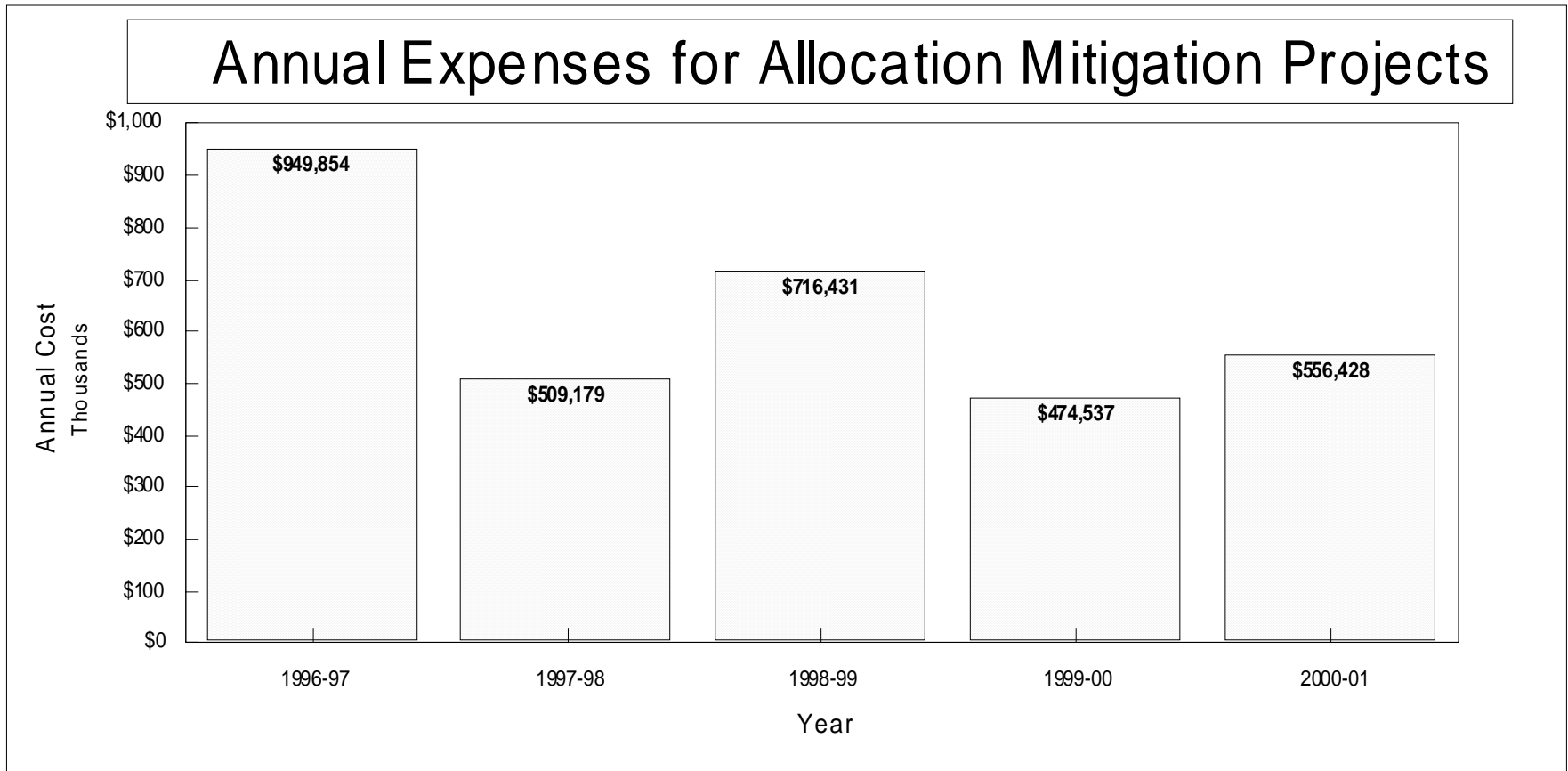


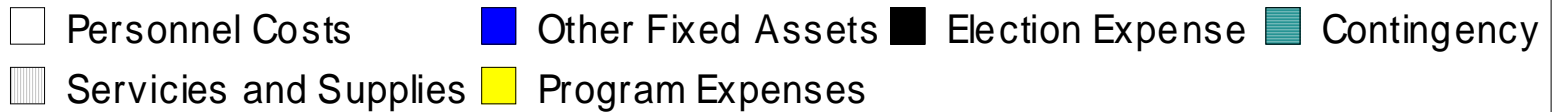
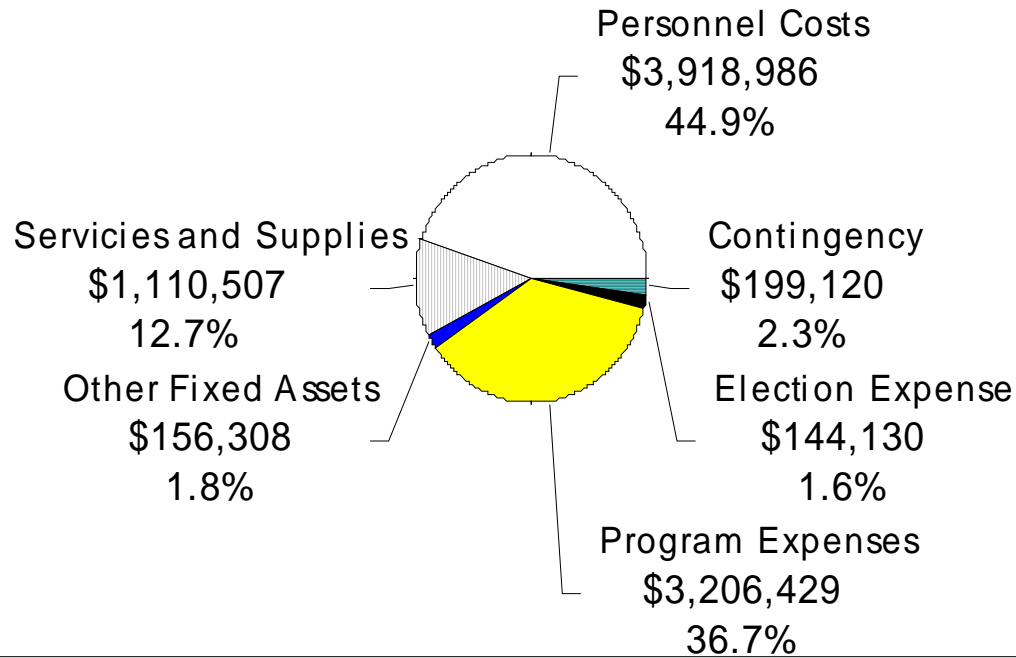
Table 3
MITIGATION ACTIVITIES CARRIED OUT BY MPWMD PERSONNEL

The following activities are reflected in the costs shown under the heading “personnel” in Table 2. These activities are not included in Tables 1, 2 or Appendix B.

PROGRAM	STAFF ACTIVITIES
GENERAL (applies to several programs)	Data collection and analysis (monitoring); Prepare technical reports and staff notes for Board action; Develop and prepare management plans; Process permits submitted by applicants; Obtain permits for District projects from other agencies; Environmental review for District and other projects; Comply with state and federal environmental laws; Retain consultants, contractors, and administer contracts; Obtain grant funding from state and federal agencies; Enforce District regulations; Provide information to agencies, groups, the media and individuals.
HYDROLOGY	Monitor streamflow, surface water quality, ground water quality and quantity, ALERT system, and weather stations; Maintain and upgrade monitoring equipment; Prepare technical reports and summaries.
STEELHEAD	Conduct numerous fish rescues throughout the year; Maintain rescue equipment; Design and supervise construction of rearing facilities; Operate and maintain rearing facilities; Conduct annual population surveys and habitat evaluations; Count returning adults passing over dams; Carry out spawning habitat restoration program; Identify and correct critical riffles that impede passage; Conduct passage experiments to assess impact of dams.
RIPARIAN (also includes Aesthetics)	Engineering design, supervise construction, monitor and maintain erosion protection projects; Obtain property owner access for riparian projects; Develop and update area management maps; Install, maintain, repair and replace vegetation irrigation system; Supervise construction of irrigation wells; Retain and supervise work crews for channel clearing; Design and implement restoration planting, maintain plant stock; Provide technical assistance to river-front property owners.
LAGOON	Monitor lagoon and wetland habitat, lagoon water quality; Develop stage/volume relationship and determine adequate volume.

FIGURE 3

Major Expenditures within Allocation Mitigation Program July 1996 - June 2001



It should be noted that in several instances the estimates for FY 1996-97 in **Table 2** do not exactly match the FY 1996-97 budget adopted by the District Board at its June 17, 1996 meeting. These differences occur because the timetable to develop the FY 1996-97 budget was a few months earlier than that for the Implementation Plan, and project refinements were made in the interim. These differences will be addressed by the Board at its January 1997 mid-year budget adjustment.

C. Summary of Program Revenues

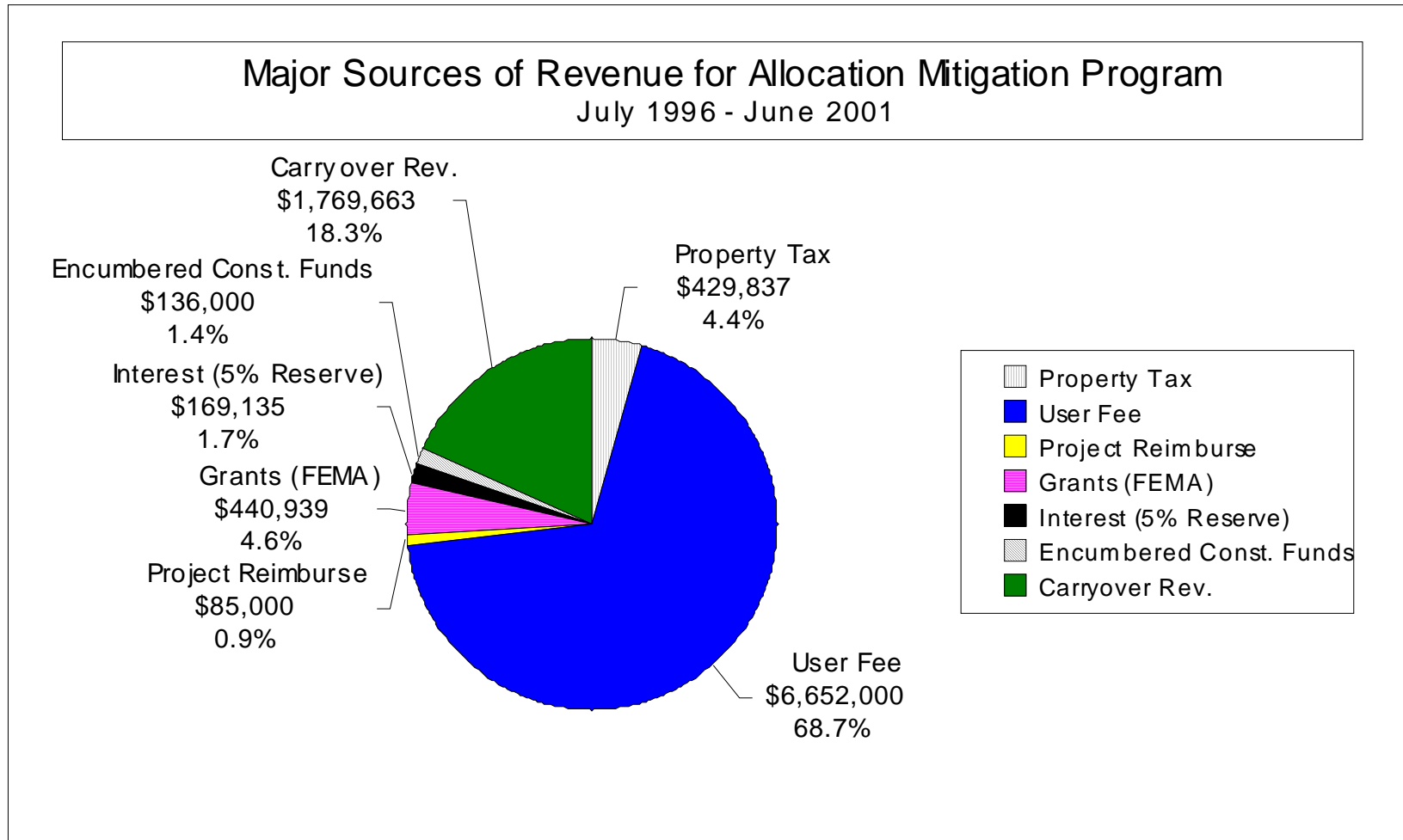
Revenue Projections: Revenues available for the Mitigation Program have been estimated for the current fiscal year and projected until June 30, 2001 (see **Table 2**). These estimates are the best numbers currently available to staff, and are based on historical revenue sources and amounts received by the District for the Mitigation Program since its inception. In reality, the District has little control over future revenues. For example, the State of California has unilaterally withdrawn approximately \$250,000 in property tax revenues from the agency since 1992. Similarly, user fees are dependent upon the quantity of water sold by Cal-Am which, in turn, is dependent upon customer demand. Water demand is subject to both the weather and the economic climate, or limitations, rationing and conservation measures imposed by local governments.

The estimated revenues for the FY 1997-2001 period (excluding the existing carry-over) total \$7.91 million. The primary source of revenue is the 6.015 percent user fee on the Cal-Am water bill, which is estimated to generate \$6.65 million. Other sources of revenue include property taxes, federal (FEMA) grants, project reimbursement, encumbered construction funds, and interest on accounts (accounting for capital equipment reserve is excluded). As noted previously, an additional source of funding is the nearly \$1.77 million carry-over that presently exists and is planned to be used up over the five-year period, with the exception of \$500,000 reserved for drought and flood emergencies. **Figure 4** summarizes the estimated revenue amounts from various sources described in this paragraph totaled over the five-year period.

FEMA Reimbursements: Many program expenses are related to the need to repair erosion protection projects damaged by floods in early 1995. The District has sought about \$1.7 million in reimbursements from the Federal Emergency Management Agency (FEMA) and Office of Emergency Services (OES). To date, \$663,736 (37 percent) of that request has been obligated (of which some was spent in FY 1995-96). The District has appealed the remaining \$1.1 million which has not been approved to date. Pending FEMA/OES action, this amount is excluded from the revenues projected in this five-year schedule. Thus, it is apparent that the projections of property taxes, user fees and federal grant reimbursements, made early in fiscal year 1996-1997, are subject to revision as more reliable data become available. Staff proposes to bring these revised revenue projections before the Board for consideration as part of the annual budget approval process.

The District staff believes that repair of the erosion protection projects described in Section III-A have priority, and must be funded even if FEMA/OES reimbursements are not approved. Some other program, such as the GIS system or co-funding of other indirect mitigation projects from the mitigation fund, would be reduced in order to enable the repair of the erosion protection projects to move forward.

FIGURE 4



IV. CONCLUSIONS

The District Board on May 20, 1996 voted to continue the Mitigation Program for the FY 1997-2001 period. Staff believes it has identified the most beneficial projects and activities, both new and continuing, which are achievable considering the time, budget and resource constraints involved.

The potential effect of the Endangered Species Act and recent federal protection of two Carmel River species has been factored into this five-year plan, but specific impacts to project costs and timing cannot be known at this time. Staff is presently coordinating with the appropriate resource agencies, and has budgeted additional time to garner permits for major projects.

This Implementation Plan functions as a blueprint for future action, but the funding for each year must be determined by the District Board through its annual budget-setting process. A significant variance from anticipated revenues could affect the timing or magnitude of projects. Alternatively, the Board could consider changing the user fee to address significant increases or decreases in revenue.

The overall intent of the Mitigation Program is to result in a self-sustaining river environment that does not require extensive human intervention to maintain health and vigor. This situation will not likely occur until adequate Carmel River flows to meet the needs of river-dependent fish, wildlife and vegetation are provided.

Appendix A

SUMMARY OF RECOMMENDED MITIGATION PROGRAM ACTIVITIES IN THE FY 1997-2001 PERIOD

Source: Draft Evaluation Report for FY 1991-1996 Mitigation Program

The following recommendations are excerpted from the “Conclusions and Recommendations” sections for the Hydrologic Monitoring, Steelhead Resource, Riparian Vegetation and Wildlife and Lagoon Vegetation and Wildlife chapters of the Draft Evaluation Report for the MPWMD Five-Year Mitigation Program (May 1996).

HYDROLOGIC MONITORING PROGRAM

- C Continue streamflow monitoring program, including 11 streamflow gaging stations;
- C Continue surface water quality monitoring program; add continuous recording equipment at Sleepy Hollow Rearing Facility and four continuous recording temperature meters along the river;
- C Continue ground water quantity monitoring program;
- C Continue ground water quality monitoring program; review data;
- C Continue ALERT system; upgrade weather stations and connect to modem;
- C Continue co-funding cooperative operation of USGS Near Carmel gage;
- C Continue co-funding cooperative operation of ALERT sensors.

STEELHEAD RESOURCE PROGRAM

- C Continue existing rescue activities, including rescues in Summer, Fall/Winter and Spring; complete construction of Sleepy Hollow Steelhead Rearing Facility (SHSRF);
- C Defer “permanent” Mid-Valley Holding Facility (MVHF) construction until 1998-99, pending action by SWRCB and Cal-Am regarding streamflow quantities; hold rescued fish at SHSRF or transport upstream to permanent habitat;
- C Continue to maintain and monitor the spawning habitat restoration project; consider program to extract gravel from the inundation zones of San Clemente and Los Padres Reservoirs;
- C Continue rescues of stranded steelhead kelts in the lower river; research current techniques, procedures, and equipment needed to ensure high survival during the acclimation phase;
- C Continue to evaluate need to modify Cal-Am facilities (dams) to ensure safe fish passage; assist CDFG and Cal-Am to improve fish passage by applying for grants;
- C Continue monitoring the steelhead juvenile and adult populations, especially in lower river; install and operate camera at San Clemente Dam fish ladder;
- C Develop alternative sites or concepts for lagoon acclimation facility.

RIPARIAN VEGETATION AND WILDLIFE PROGRAM

- C Continue river management activities;
- C Update baseline hydrologic surveys after major changes occur in the river; telemeter data from recording stations to the Carmel Valley field office;

- C Update District's erosion protection standards by incorporating new bio-technical erosion protection methods and by using a 50-year return interval flow design; continue the restoration of unstable river reaches;
- C Consider expanding the District's river management zone to include areas within the watershed (but may be outside District boundaries) that contribute sediment; explore techniques to reduce sediment input from tributaries, particularly along Tularcitos and Cachagua Creeks;
- C Rebuild District's emergency irrigation systems between Highway 1 and Robinson Canyon Road in next drought; maintain and operate Four-Well system to benefit surrounding environment;
- C Identify and mitigate impacts of channel clearing program in light of newly listed endangered species; consider Addendum to Carmel River Management Plan EIR; develop MOUs to replace annual permits; develop written channel clearing guidelines with responsible agencies;
- C Obtain long-term agreements with property owners for access to complete channel clearing activities; expand management zone to include Hitchcock, Garzas, Robinson Canyon and Potrero Creeks for channel clearing (primarily for debris removal);
- C Develop a comprehensive, expanded monitoring program for vegetation, soil, and wildlife monitoring; continue testing of soil monitoring equipment; develop statistically valid vegetation sampling protocol at permanent transects or quadrats; chose monitoring locations to integrate hydrologic and topographic data; complete baseline survey;
- C Develop a Geographic Information System (GIS); consider adding a permanent staff position or contractor for riparian corridor monitoring, data collection and analysis, and GIS database maintenance;
- C Establish success criteria for restoration planting projects before projects are carried out; develop sampling program to assess project performance and determine if remedial action is necessary; create permanent watering sites for wildlife in dry river reaches;
- C Identify opportunities for public education and for volunteers participation in restoration and monitoring projects; educate riverfront property owners about the value of proper streambank and channel maintenance; widely distribute information about prohibited actions;
- C Retain contractor to meet the demand for technical assistance after flood emergencies; consider forming an interagency committee to review applications for river work; secure river-wide permits from various agencies to allow routine maintenance;
- C Pursue riparian ordinance violations; consider adding enforcement staff or contracting with Monterey County;
- C Continue to obtain FEMA/OES Flood Disaster Grants;
- C Update Carmel River Management Plan and EIR to reflect current conditions and management techniques;
- C Ask that Monterey County and CDFG review and adopt the proposed Riparian Corridor Management Plan and a revised Carmel River Management Plan; goal is to avoid conflicts or overlapping jurisdictions.

LAGOON VEGETATION AND WILDLIFE PROGRAM

- C Continue monitoring lagoon habitats and their physical characteristics annually, using

- established methodologies;
- C Add an avifauna monitoring site in the wetlands area;
- C Develop stage-volume relationship to estimate the adequate volume of water for existing vegetation and wildlife;
- C Ensure that alternative sources of water development account for the need to maintain an adequate volume of water in the lagoon.

AESTHETICS PROGRAM

- C See Riparian Vegetation and Wildlife Program

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TABLE B-1							
ESTIMATED COSTS FOR ALLOCATION MITIGATION PROGRAM. JULY 1996 - JUNE 2001							
ACTIVITY	1996-97	1997-98	1998-99	1999-00	2000-01	Total	
Hydrologic, Water Quality and Climatic Monitoring							
- Complete well location map		\$500				\$500	
- District share of coop operation of USGS, near Carmel	1	3,325	\$3,591	\$3,878	\$4,189	\$4,524	19,506
- Coordinate USGS Near Carmel Sediment Sampling Program	2	5,250	5,670	6,124	6,613	7,143	30,800
- Maintain ALERT Network		1,500	1,545	1,591	1,639	1,688	7,964
- Operate and maintain two weather stations	3	50	156	53	164	58	481
- Ground Water Quantity Monitoring		5,500	500	515	530	546	7,592
- Ground Water Quality Monitoring		5,000	5,150	5,305	5,464	5,628	26,546
- Intern Program		600	618	637	656	675	3,185
FIXED ASSETS							
- Streamflow monitoring equipment and supplies		2,480	1,030	1,061	1,093	1,126	6,790
- Upgrade Weather Stations and O&M	3	1,589					1,589
SUBTOTAL		\$25,794	\$18,260	\$19,163	\$20,348	\$21,388	\$104,953
Riparian Corridor Management Program (RCMP)							
Erosion Protection Projects							
- Pryor, Manor Projects (Flood Repair)		259,000					259,000
- Schulte (Flood Repair)	4	0	5,000				5,000
- Red Rock Project (Construction)			206,000				206,000
- Valley Hills & Scarlett Projects (Flood Repair)				101,846			101,846
- DeDampierre Project, (Flood Repair)	5				218,545		218,545
- All Saints Project (Construction)	1					281,377	281,377
- Erosion Protection Project Maintenance	3	10,000	10,300	10,609	21,855	28,138	80,901
SUBTOTAL		\$269,000	\$221,300	\$112,455	\$240,400	\$309,515	\$1,152,670
Channel Clearing							
- Annual Program Costs		7,000	7,210	7,426	7,649	7,879	37,164
- California Conservation Corps		6,500	6,695	6,896	7,103	7,316	34,509
SUBTOTAL		\$13,500	\$13,905	\$14,322	\$14,752	\$15,194	\$71,673
Erosion Protection Monitoring							
- Baseline profile update, Lagoon to Stonepine Brdg.		250					250
- Cross sections, all bridges and project areas		250					250
SUBTOTAL		\$500	\$0	\$0	\$0	\$0	\$500
Vegetation Irrigation Program							
- Annual O & M Costs, 4-Well Systems		4,000	4,120	4,244	4,371	4,502	21,237
- Rebuild San Carlos System			10,000				10,000
- Rebuild Meadows System			10,000				10,000
- Annual O & M Costs, District Project Systems		5,000	7,000	10,000	12,500	15,000	49,500
- Purchase Irrigation Water		15,000	15,450	15,914	16,391	16,883	79,637
FIXED ASSETS							
- Pryor System Improvements		20,000					20,000
- Reimers Well Improvements		5,000					5,000
- Construct New Irrigation Well at Red Rock			20,000				20,000
SUBTOTAL		\$49,000	\$66,570	\$30,157	\$33,262	\$36,385	\$215,374

TABLE B-1						
ESTIMATED COSTS FOR ALLOCATION MITIGATION PROGRAM. JULY 1996 - JUNE 2001						
Other Riparian Corridor Management Program Activities						
- Complete Plan	500					500
- Area Management Maps	25,000					25,000
- Restoration Planning	7,600	7,828	8,063	8,305	8,554	40,349
- Public Information & Technical Assistance	1,000	1,030	1,061	1,093	1,126	5,309
SUBTOTAL	\$34,100	\$8,858	\$9,124	\$9,397	\$9,679	\$71,159
Vegetation, Soils, & Wildlife Monitoring						
- Continue Existing Programs	37,000	30,500	32,000	33,500	35,000	168,000
SUBTOTAL	\$37,000	\$30,500	\$32,000	\$33,500	\$35,000	\$168,000
RCMP SUBTOTAL	\$369,000	\$332,275	\$188,935	\$321,914	\$396,094	\$1,608,217
Fishery Program						
- Sleepy Hollow Rearing Facility (construction)	110,400	23,900				134,300
- Sleepy Hollow Rearing Facility (O & M)	46,558	31,780	27,700	21,170	22,690	149,898
- Conduct Juvenile Rescues (O & M)	1,000	1,100	1,200	1,300	1,400	6,000
- Spawning Habitat Restoration Project (1995 Storm Damage) 6	79,000					79,000
- Spawning Habitat Restoration Project (Maintenance & Monitor)	10,000	27,080	2,660	2,750	2,840	45,330
- Spawning Habitat Restoration Project (Gravel Source Recon)	5,000					5,000
- Mid-Valley Holding Facility (Construction)			281,000			281,000
- Mid-Valley Holding Facility (O & M)				9,705	11,650	21,355
- Fall/Winter Juvenile & Smolt Rescues (O & M)	2,500	1,000	1,030	1,061	1,093	6,684
- Tech Supplies and Equipment for Adult Counts SCDam	1,500	600	618	637	656	4,010
- Rescue of Steelhead Kelts	1,500	16,950	1,600	1,700	1,800	23,550
- Los Padres Weir		15,000				15,000
FISHERIES FIXED ASSETS						
- Floor Covering for Sleepy Hollow Office	2,400					2,400
- La Motte Turbidimeter	660					660
SUBTOTAL	\$260,518	\$117,410	\$315,808	\$38,322	\$42,128	\$774,187
Lagoon Vegetation and Wildlife Monitoring						
- Continue Monitoring Wetland Habitat	150	155	159	164	169	796
- Additional Avifauna Species Diversity Site	500	515	530	546	563	2,655
- Develop Stage/Volume Relationship for Lagoon	3,000					
- Laboratory Analysis of Soils	200	206	212	219	225	1,062
SUBTOTAL	\$3,850	\$876	\$902	\$929	\$957	\$4,513
Other Mitigation Fund Expenditures						
- Annual Reports	1,400	1,500	1,600	1,800	1,900	8,200
- Public Information Program	54,192	30,000	30,900	31,827	32,782	179,701
- Toilet Retrofit Rebate Program	190,000					190,000
- Develop and Maintain GIS (hardware and software)	1,000		150,000	50,000	51,500	252,500
- Phase III Laguna Seca Hydrogeologic Investigations	10,000					10,000
SUBTOTAL	\$256,592	\$31,500	\$182,500	\$83,627	\$86,182	\$640,401
Other Fixed Assets						
- Replace 1 ton Pickup	21,000					21,000
- Replace 1/2 ton Pickup 7	16,000		18,000	21,000	10,070	65,070
- Computer Hardware and Software Upgrades	5,300					5,300
- Upgrade MIS (computer network) 8					41,738	41,738
- Replace photocopier 8		11,200				11,200
- Replace Telephone System 8			12,000			12,000
SUBTOTAL	\$42,300	\$11,200	\$30,000	\$21,000	\$51,808	\$156,308

TABLE B-1						
ESTIMATED COSTS FOR ALLOCATION MITIGATION PROGRAM. JULY 1996 - JUNE 2001						
ACTIVITY	1996-97	1997-98	1998-99	1999-00	2000-01	Total
EXPENDITURES						
Personnel Costs (see Note 1)	\$738,159	\$760,304	\$783,113	\$806,606	\$830,804	\$3,918,986
Services and Supplies (see Note 1)	\$209,169	\$215,444	\$221,907	\$228,565	\$235,422	\$1,110,507
Other Fixed Assets	\$42,300	\$11,200	\$30,000	\$21,000	\$51,808	\$156,308
Program Expenses by Element						
Hydrologic, Water Quality and Climatic Monitoring	25,794	18,260	19,163	20,348	21,388	104,953
Riparian Corridor Management Program						
Erosion Protection Projects	269,000	221,300	112,455	240,400	309,515	1,152,670
Channel Clearing	13,500	13,905	14,322	14,752	15,194	71,673
Erosion Protection Monitoring	500	0	0	0	0	500
Vegetation Irrigation Program	49,000	66,570	30,157	33,262	36,385	215,374
Other Riparian Corridor Management Program Activities	34,100	8,858	9,124	9,397	9,679	71,159
Vegetation, Soils, & Wildlife Monitoring	37,000	30,500	32,000	33,500	35,000	168,000
Fishery Program	260,518	117,410	315,808	38,322	42,128	774,187
Lagoon Vegetation and Wildlife Monitoring	3,850	876	902	929	957	7,513
Other Mitigation Fund Expenditures	256,592	31,500	182,500	83,627	86,182	640,401
PROGRAM EXPENSES SUBTOTAL	\$949,854	\$509,179	\$716,431	\$474,537	\$556,428	\$3,206,429
Capital Equipment Reserve						\$0
Election Expense	\$0	\$71,000	\$0	\$73,130	\$0	\$144,130
Contingency (see Note 2)	\$35,524	\$36,791	\$48,417	\$36,205	\$42,183	\$199,120
Total Expenditures, excluding emergency reserves	\$1,975,006	\$1,603,917	\$1,799,869	\$1,640,043	\$1,716,644	\$8,735,479
REVENUES						
Property Tax	229,837	50,000	50,000	50,000	50,000	429,837
Project Reimbursement	57,000	7,000	7,000	7,000	7,000	85,000
User Fee Revenue	1,236,820	1,256,674	1,268,171	1,302,988	1,587,347	6,652,000
Grants (Federal Emergency Management Agency)	263,939	70,000	38,000	69,000	0	440,939
Interest (5% of Carryover and Emergency Reserve)	0	50,842	46,982	37,625	33,687	169,135
Encumbered Construction Funds	136,000	0	0	0	0	136,000
From Capital Equipment Reserve						0
Total Revenue	\$1,923,596	\$1,434,516	\$1,410,153	\$1,466,613	\$1,678,034	\$7,912,911
Revenues-Expenses	(\$51,410)	(\$169,402)	(\$389,716)	(\$173,430)	(\$38,611)	(\$822,568)
Fund Adjustments						
Less Designated Reserves						
- 1996-97 Reserves	(180,390)					(180,390)
Less Reserve-Prepaid Expenses (Rent, Insurance)	(4,200)					(4,200)
Less Emergency Reserves						
- Establish Flood Emergency Reserve	(250,000)	(7,500)	(7,725)	(7,957)	(8,195)	(281,377)
- Establish Drought Emergency Reserve	(250,000)	(7,500)	(7,725)	(7,957)	(8,195)	(281,377)
Carryover Revenue (from previous year)	#####	\$1,033,663	\$849,261	\$444,095	\$254,752	\$1,769,663
Fund Balance (Rev.-Exp.-Fund Adj.+Carryover)	#####	\$849,261	\$444,095	\$254,752	\$199,750	\$199,750

Footnotes - Shaded boxes indicate proposed change to budget adopted on June 17, 1996.

- 1996-97 budget shows 0\$ from the Mitigation Fund. Revision at mid-year to reflect 50% cost share with Br. 5. USGS inflation factor of 8% for 1997-2001.
- 50% cost share with Branch 5. USGS inflation factor = 8% for FY 1998-2002
- Proposed mid-year budget adjustment.
- Schulte project repairs postponed from FY 1996-97 to FY 1997-98.
- Approve FEMA reimbursement amount available is 63,199 (as of 9/6/96).
- \$79,000 budgeted on June 17, 1996, project costs of \$94,000 funded by borrowing \$15,000 from funds for maintenance and gravel reconnaissance study.
- Replacement of Units 1(1998-99), 4 (1996-97), 9 (1999-00), and 53% of Unit 5 (2000-01)
- 53% of estimated replacement cost
- Costs inflated at 3% per year.
- For FY 1996-97, 3% of Service and Supplies, Fixed Assets, and Program Expenses. For FY 1997-2001, 5%.