INLAND EMPIRE UTILITIES AGENCY
OPERATING AND CAPITAL PROGRAM BUDGET
FISCAL YEAR 2005/2006, VOLUME II
TEN-YEAR CAPITAL IMPROVEMENT PLAN

June 1, 2005

Inland Empire Utilities Agency

6075 Kimball Avenue

Chino, California 91710

TABLE OF CONTENTS

1.0 INTRODUCTION 1-1
BACKGROUND 1-1
IEUA'S MISSION 1-1
WASTEWATER FACILITIES MASTER PLANNING 1-2
RELATED PLANNING ACTIVITIES 1-2
CHINO BASIN WATERMASTER'S OPTIMUM BASIN MANAGEMENT PLAN (OBMP) 1-5
IEUA RECYCLED WATER FEASIBILITY STUDY 1-5
RECHARGE MASTER PLAN 1-6
SANTA ANA INTEGRATED WATERSHED PROGRAM 1-6
MAXIMUM BENEFIT BASIN PLAN 1-7
CHINO BASIN ORGANICS MANAGEMENT STRATEGY BUSINESS PLAN 1-7
IEUA ADOPTED SEVEN-POINT EMERGENCY ENERGY ACTION PLAN 1-8
SALINITY MANAGEMENT ACTION PLAN – REGIONALIZATION OF NRW SYSTEM TO MAXIMIZE SALT EXPORT 1-8
IEUA 2005 URBAN WATER MANAGEMENT PLAN 1-10
ENVIRONMENTAL DOCUMENTATION 1-10
PURPOSE OF THIS TEN-YEAR PLAN 1-10
MAJOR FACILITIES 1-11
WATER RECYCLING PLANTS 1-11
REGIONAL INTERCEPTOR SYSTEM 1-13

2.0 WASTEWATER FLOW PROJECTIONS 2-15
ANTICIPATED GROWTH 2-15
FIFTY-YEAR FLOW PROJECTION 2-16

3.0 REGIONAL WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM SUMMARY 3-18
OVERVIEW 3-18
RP-1 SERVICE AREA 3-19
RP-4 SERVICE AREA 3-21
CCWRF SERVICE AREA 3-22
RP-2/RP-5 SERVICE AREA 3-23

TABLE OF CONTENTS

4.0 RECYCLED WATER CAPITAL IMPROVEMENT PROGRAM 4-26
BACKGROUND 4-26
REGIONAL RECYCLED WATER PROGRAM 4-27
REGIONAL RECYCLED WATER FACILITIES 4-27
LOCAL RECYCLED WATER PRIORITIES 4-28
REGIONAL RECYCLED WATER PROGRAM SUMMARY 4-29
PROGRAM STATUS AND CURRENT ACTIVITIES 4-29
FUNDING 4-29
PERMITTING 4-30
CUSTOMER DEVELOPMENT 4-32
REGIONAL RECYCLED WATER PROGRAM SUMMARY 4-32
CURRENT TYCIP 4-33

5.0 RECHARGE WATER CAPITAL IMPROVEMENT PROGRAM 5-34
BACKGROUND 5-34
CHINO BASIN RECHARGE FACILITIES IMPROVEMENT PROJECT 5-35
RECYCLED WATER USE FOR RECHARGE 5-40
CURRENT TYCIP 5-41

6.0 NON-RECLAIMABLE WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM 6-43
BACKGROUND 6-43
SALINITY MANAGEMENT ACTION PLAN AND NRW ACTION PLAN 6-44
ECONOMIC BENEFITS OF THE NRW ACTION PLAN 6-46
CURRENT TYCIP 6-47

7.0 ORGANICS MANAGEMENT/CO-COMPOSTING CAPITAL IMPROVEMENT PROGRAMS 7-49
BACKGROUND 7-49
INLAND EMPIRE REGIONAL COMPOSTING FACILITY 7-49
CURRENT TYCIP 7-50

8.0 TEN-YEAR CIP COSTS AND FINANCING 8-52
INTRODUCTION 8-52
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL 8-53
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL PROGRAM COSTS 8-53
WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL PROGRAM FINANCING 8-54
OTHER IEUA CAPITAL IMPROVEMENT PROGRAMS 8-56
RECYCLED WATER CAPITAL PROGRAM 8-56
RECHARGE WATER CAPITAL PROGRAM 8-56
NON-RECLAIMABLE WASTEWATER SYSTEM CAPITAL PROGRAM 8-56
ORGANICS MANAGEMENT CAPITAL PROGRAMS 8-57
AB-1600 NEXUS TEST 8-58
CONCLUSIONS 8-60

9.0 EMERGING PLANNING ISSUES 9-61

TABLES

2-1 Regional System Flow and Capacity Utilization Summary 2-16
3-1 RP-1 Service Area – Major Capital Projects 3-21
3-2 RP-4 Service Area – Major Capital Projects 3-22
3-3 CCWRF Service Area – Major Capital Projects 3-23
3-4 RP-2/RP-5 Service Area – Major Capital Projects 3-24
4-1 Recycled Water Program Schedule and Cost 4-29
4-2 Recycled Water (WC) Capital Improvement Program – Major Projects 4-33
5-1 Chino Basin Facilities Improvement Project Bid Packages 5-37
5-2 Chino Basin Potential Source Water Recharge Capacities 5-38
5-3 Recharge Water (RW) Capital Improvement Program – Major Projects 5-41
6-1 NRW System Capital Improvement Program – Major Projects 6-48
7-1 Organics Management Capital Improvement Program – Major Projects 7-51
8-1 Wastewater Collection, Treatment, and Disposal Program Summary 8-55
8-2 Major Capital Projects – Other Programs 8-57

TABLE OF CONTENTS

FIGURES

1-1	Contracting Agencies	1-3
1-2	WFMP Consolidation of Relevant IEUA Planning Documents	1-4
1-3	Regional Plant Service Area Boundaries	1-12
1-4	Existing Regional Trunk Wastewater System and Tributary Areas	1-14
2-1	Regional System 50-Year Flow Projections	2-17
4-1	IEUA Regional Recycled Water Program Priorities	4-28
5-1	Storage & Recovery In Chino Basin	5-34
5-2	Chino Basin Recharge Site Locations	5-35
5-3	IEUA Water Recycling and Recharge Facilities	5-39
5-4	Imported, Storm, and Recycled Water Recharge Schedule	5-40
6-1	Relative Costs of Salt Removal From Chino Basin	6-45
8-1	Recommended Ten-Year Capital Project Expenditures	8-52
8-2	Recommended Wastewater Collection, Treatment, and Disposal Program Capital Expenditures	8-53
8-3	Wastewater Collection Treatment, and Disposal Program Cumulative Revenues and Expenditures	8-60

EXHIBITS

I	Unadjusted Service Area Flow Forecasts	64
II	Combined RP-1/RP-4 Service Area Unadjusted Flow Forecast	65
III	Combined CCWRF/RP-5 Service Area Unadjusted Flow Forecast	66
IV	RP-1 Flow Forecast	67
V	RP-4 Flow Forecast	68
VI	CCWRF Flow Forecast	69
VII	RP-5/RP-2 Flow Forecast	70
VIII	Regional Domestic Waste System Capital Improvement (RC) Fund – Sources and Uses of Funds	71
IX	Recycled Water Capital Improvement (WC) Fund – Sources and Uses of Funds	72
X	Recharge Water Program (RW) Fund – Sources and Uses of Funds	73
XI	Non-Reclaimable Wastewater System Capital Improvement (NC) Fund – Sources and Uses of Funds	74
XII	Consolidated Organics Management (OM) Fund – Sources and Uses of Funds	75

TABLE OF CONTENTS

APPENDICES

A	Incremental EDU Growth Data	A-1
B	Proposed Capital Projects Summary	B-1
C	Phase I Recycled Water Groundwater Recharge Project Summary	C-1

EXECUTIVE SUMMARY	TYCIP
IEUA	

TEN-YEAR CAPITAL IMPROVEMENT PLAN

Introduction

The Inland Empire Utilities Agency (IEUA) is a wholesale distributor of water and recycled water and is also responsible for providing regional wastewater treatment services for a 242-square mile area of western San Bernardino County. IEUA accomplishes industrial and municipal wastewater collection through regional wastewater sewer interceptors and two non-reclaimable wastewater sewer pipeline systems; treatment at five regional treatment plants; biosolids management; and other related utility services. IEUA closely coordinates its water resources management program in the Chino Groundwater Basin with the Chino Basin Watermaster, the San Bernardino County Flood Control District, the Chino Basin Water Conservation District, and local water and sewer retail agencies.

In coordination with its seven wastewater Contracting Agencies, IEUA has developed this Ten-Year Capital Improvement Program (TYCIP) to determine the capital spending requirements needed to meet future wastewater service needs, and coordinate and set priorities for future water supply, recycling, and wastewater capital projects through fiscal year 2014/2015.

Wastewater Facilities Master Plan

In August of 2002, the Regional Sewage Technical and Policy Committees recommended and the IEUA Board of Directors (Board) adopted a Wastewater Facilities Master Plan (WFMP) for ultimate growth (2050) in the service area. IEUA's goal for the Master Plan was to produce a single, comprehensive document that would coordinate, in an integrated water resources planning framework, the planning of all current and future wastewater facilities to meet the overall water resources needs of the service area in the most cost-effective means possible. The WFMP is the primary policy guiding the development of the Agency's TYCIP.

The WFMP, along with the Recycled Water Feasibility Study and Implementation Strategy and Organics Management Strategy Business Plan, constituted a "Program Master Plan." It integrated all of the related planning activities in order to address the environmental concerns of the overall effects of the WFMP projects contemplated by IEUA. This TYCIP is consistent with the Program Master Plan and accompanying Programmatic Environmental Impact Report (certified on June 28, 2002).

Recharge Master Plan

In January of 2002, the IEUA Board of Directors approved the Recharge Master Plan Implementation Memorandum of Agreement, between the Chino Basin Watermaster, Chino Basin Water Conservation District, San Bernardino County Flood Control District, and IEUA. Members of these four agencies have formed a Groundwater Recharge Coordinating Committee to implement a $40-million program entitled the Chino Basin Facilities Improvement Program (CBFIP) resulting in construction projects to improve basin recharge facilities. The IEUA is serving as the lead Agency for implementation (design, construction, operation and maintenance) of this cooperative program.

The CBFIP is a Groundwater Recharge Program that includes proposed improvements at 18 recharge basin sites, construction of two new sites, with approximately 38 recharge basins. The improvements will maximize the recharge capacity of those facilities, protecting and increasing the yield of the groundwater basin, increasing the amount of recycled water that can be recharged, and improving groundwater quality. Full implementation of the Recharge Master Plan will create 90,000 to 115,000 AFY of improved, plus new recharge capacity in Chino Basin. Recently, IEUA completed California Department of Health Service's requirements for using recycled water to recharge the Chino Groundwater Basin (Phase I Basins) and was granted a recharge permit by the California Regional Water Quality Control Board (Santa Ana Region) in April of 2005.

The CBFIP also includes a project to construct lysimeters and groundwater monitoring wells to evaluate the impacts of the recharge program on the groundwater basin. Additional projects are needed to enhance the Groundwater Recharge Program. A State of California Department of Water Resources (DWR) grant of $5 million will provide partial financing of the following project components to expand and enhance existing basins: They include:

1. New pipelines for delivery of imported water and a concrete lined V-ditch at RP-3 to convey the three sources of water to the Declez Basin via the RP-3 trap channel,
2. Improvements to the new SCADA system which include, adding in remote basins that are scheduled to be improved for groundwater recharge,
3. Internal berm spillways to retain greater quantities of storm water within the various flow-through basins,
4. A new Metropolitan Water District of Southern California (MWD) turnout on the Rialto Pipeline will be constructed to deliver imported water to two series of basins on the West Cucamonga Channel,
5. Nine new sets of lysimeters will be constructed to immediately monitor the recycled water quality with regards to the soil/water treatment in the basins; and nine new groundwater monitoring wells to track the movement of recycled water down gradient from the respective basins,
6. A total of five new recycled water turnouts will be added to the IEUA Regional Recycled Water Distribution System, and
7. Singular projects such as:
    a. Backflow prevention devices on inflow pipelines,
    b. A new sluice gate at San Sevaine Basin No. 5.

Reuse of recycled water for groundwater recharge is a critical component of the OBMP and water

supply plans for the region. It will increase the reliability of water supplies during dry years and reduce reliability on imported water. The use of high-quality recycled water along with other high-quality sources will also improve groundwater quality through dilution. Improvements in groundwater quality through recharge also lower the cost of the Chino Basin Desalter groundwater treatment processes.

Maximum Benefit Basin Plan

Regulations and standards governing the use of recycled water have been adopted by two state agencies: the Department of Health Services and the Regional Water Quality Control Board, Santa Ana Region, (Regional Board). Recently, the Regional Board adopted amendments to the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) incorporating a "maximum benefit" proposal recommended by IEUA and the Chino Basin Watermaster. The Maximum Benefit Basin Plan establishes new, scientifically-based Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) groundwater quality objectives and wasteload allocations that allow the use of recycled water for groundwater recharge while providing reasonable protection of the groundwater quality in the region.

As part of the Maximum Benefit Basin Plan, IEUA and the Chino Basin Watermaster have committed to a specific set of projects and requirements in order to demonstrate that the water quality of the groundwater basin is protected and that the plan provides the maximum benefit to the users of the groundwater basin. These commitments include:

- Surface water and groundwater monitoring programs,
- Chino desalters (consistent with OBMP requirements of 40 mgd by 2020),
- Recharge facilities/conjunctive use program,
- Recycled water quality management (through industrial waste source control and optimum utilization of the IEUA's non-reclaimable waste (NRW) system), and
- Hydraulic control to protect the Santa Ana River quality (consistent with the Orange County Water District and IEUA Memorandum of Understanding).

In order to recharge recycled water in the Chino Groundwater Basin IEUA and Watermaster prepared a Maximum Benefit Concept Proposal to the Regional Board for the basin plan amendment. The proposal was approved by the Regional Board and incorporated into the basin plan amendment in February 2004. The State Water Resources Control Board approved the basin plan amendment in September 2004. The incorporation of "Maximum Benefit" into a basin plan is unprecedented in the state.

Through timely and appropriate implementation of these commitments, the Basin Plan's "maximum benefit" water quality objectives will be achieved; and unnecessarily restrictive historical "antidegradation" objectives will be avoided. This will result in significant savings to the Agency for outside water imports and wastewater treatment costs.

Recycled Water Program

IEUA recognizes that water recycling is a critical component of an effective water resources management strategy. IEUA prepared a Recycled Water System Feasibility Study (Feasibility Study), adopted by the Board of Directors in August 2002, which delineated the Agency's recycled water program through the year 2020. In 2004, IEUA initiated development of the Regional Recycled Water Program Implementation Plan which updated information from the 2002 report. The Implementation Plan identifies additional future recycled water demand, primarily in the developing areas of Chino and Ontario increasing the total deliveries to approximately 93,000 acre-feet per year. The plan identifies a phased implementation over the next ten years with provision for additional expansion beyond the ten year planning horizon. The estimated cost of the facilities planned for the next ten years is $197 million to be funded by a combination of state and federal grants, state low-interest loans, MWD LRP rebates, and Regional Program funds.

Over the years, recycled water will become a larger portion of the overall water resources supply mix for the Chino Basin. Water recycling will help "drought- proof" the Basin, help achieve the objectives of the OBMP, reduce reliance on imported water supply, and provide a lower cost water supply to all the residents of the IEUA service area. IEUA's goal is to use as much recycled water for local beneficial uses as is economically practical. Recycled water will also be utilized to replenish the Chino Groundwater Basin (blended with stormwater and imported water) to meet the replenishment needs of the Chino and Cucamonga Basins. This will provide significant drought and emergency storage benefits to the residents of IEUA's service area.

The 2002 Feasibility Study and 2004 Implementation Plan included an assessment of the potential recycled water customers within the IEUA service area. Staff worked with the regional agencies to identify over 1,900 potential customers. This information was used to plan the regional and local recycled water distribution pipelines. Pipeline locations were selected to provide recycled water to the largest customers or groups of customers resulting in cost effective facilities. Ultimately, this distribution system layout will serve over 1,200 of the largest customers and supply over 93,000 AFY, which includes 33,800 AFY for recharge.

In September 2000, the IEUA Board and Regional Technical and Policy Committees adopted a recycled water policy document which defines the roles and responsibilities of IEUA and the Regional Contracting Agencies for the construction and ownership of the regional and local facilities. Regional facilities are defined as facilities, pipelines, pump stations, and reservoirs which serve recycled water to a recharge site or to more than one Contracting Agency. Regional facilities will be constructed and owned by IEUA. Local facilities will deliver recycled water from the regional facilities to customers within a Contracting Agencies service area and will be the responsibility of the respective agency. Local facilities will primarily be pipelines (local laterals) and may also include some pump stations and reservoirs. In 2005 this policy will be updated to include provisions for: regional funding of local storage facilities which reduce regional storage needs; provision for reimbursement of regional facilities constructed by others (local agency or developer); and financing of local facilities and customer on-site retrofits.

The Regional Recycled Water Facilities consist of a looped pipeline system which connects all four Regional Water Recycling Plants. Future satellite plants, identified in the Wastewater Master Plan, will also be connected to the regional facilities. Regional facilities have been described in over 50 separate projects of pipelines, pump stations, and reservoirs. These projects have been grouped into five implementation phases scheduled every two years. The priority of each phase was determined

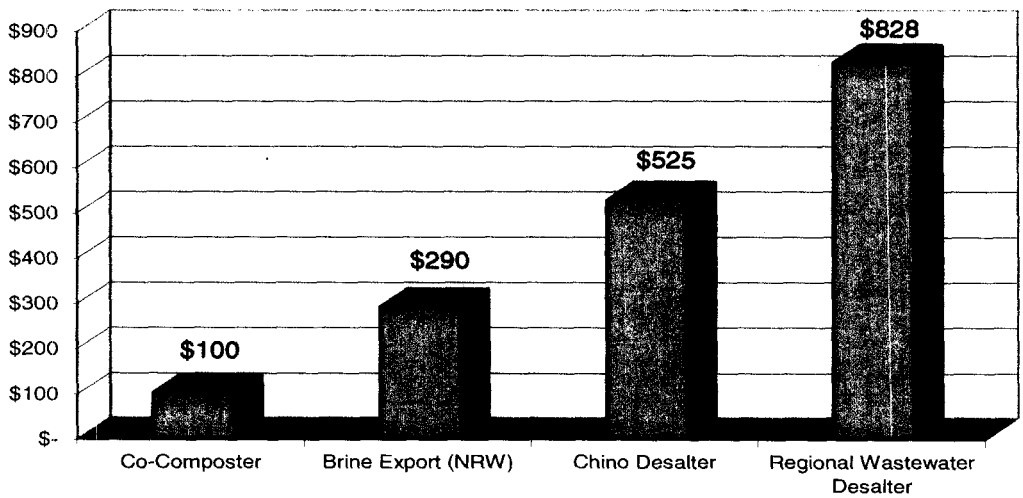
based on the amount of recycled water each phase could serve and the proximity of each phase to one of the plants or existing recycled water supply. Phase I and II of the program will deliver recycled water to most of the recharge sites since the recharge sites represent a significant recycled water use.

Non-Reclaimable Wastewater (NRW) System

The IEUA owns and operates a non-reclaimable wastewater (NRW) system that provides for export of high-salinity and industrial wastewater generated within the Agency's boundaries to the Pacific Ocean. The wastewater discharged to the NRW system consists mainly of industrial and groundwater treatment brines, but also includes some solids processing side streams from the IEUA's water recycling treatment facilities and some domestic waste from un-sewered areas. The NRW system is physically separated from the Regional Domestic Sewage System and provides a means for segregating poor quality, saline wastewater and exporting it from the service area. This improves the quality of the recycled water for local use and helps ensure that IEUA can comply with the TDS and total nitrogen limits in the Regional Board permits. The NRW system currently exports approximately 35,550 tons per year of salt to the ocean.

A study by Parsons Engineering Science (2000) evaluated the long-term issues and future funding needs for operating and maintaining the NRW system in the most cost-effective manner. Parsons suggested that the most cost-effective strategies for maximizing the use of the NRW system were: (1) diverting more high-salinity wastewater flow from the Regional system to the NRW system, thereby reducing the need for expansion of the Regional system; and (2) melding the NRW user rates and charges with the Regional system, "Regionalization". The study confirmed that utilization of the NRW system minimizes the Agency's treatment costs for salt, as illustrated in the following figure.

Relative Costs of Salt Removal From Chino Basin
(Dollars per Ton of Salt Removed)



With the acceptance of the Parsons report in June 2000, the Board began a policy of phased implementation of budgets and rates to encourage industries to discharge brine wastes to the NRW system instead of the sewer system. Reducing saline contributions to the regional plants will help IEUA to avoid exceeding its discharge permit limit of 550 mg/l TDS. Since removing TDS by treatment requires very expensive technology such as reverse osmosis, it is much more cost-effective to use the NRW system to keep the salt out of the domestic sewage system.

On March 19, 2003, the Board held a workshop to review existing policies for utilization of the NRW system and to begin developing an NRW Action Plan. The purpose of the Action Plan was to implement strategies to reduce TDS at the IEUA regional water recycling plants and to encourage salt export through optimum utilization of the NRW system consistent with the OBMP and the Maximum Benefit Basin Plan. A second workshop was held on November 19, 2003 to review and refine the action plan. The proposed action plan was developed through extensive coordination and discussion with the IEUA's Regional Technical and Policy Committees, the Chino Basin Watermaster, and the Regional Board.

The current NRW Action Plan includes several measures designed to more fully utilize the capacity of the NRW system to benefit the IEUA service area:

- Water Softener Strategy—Developed a comprehensive program of incentives, public education materials and model ordinances for new and existing residential and commercial water softeners for fiscal year 2004/05. The budget for the program is $250,000 per year using the Wastewater Collection, Treatment, and Disposal (RC) Fund. This project has already been initiated and it is progressing well. (Status: In progress),

- Buyback Agreement with CSDLAC—IEUA relinquished 3 MGD of owned capacity in the NRW to LACSD in April 2004. This action will lower annual payments to CSDLAC by approximately 23% or $350,000 annually. The savings will be passed on to NRW customers through more favorable rates and charges. This transaction will also encourage the use of the NRW system by new and existing industries to discharge their saline effluent and increase the salt export. (Status: Completed),

- Implementation of the Maximum Benefit Basin Plan—Ensure compliance with the Maximum Benefit requirements and with the Memorandum of Understanding with the Orange County Water District and Regional Board. Critical near-term action items are: (1) develop monitoring work plan with Watermaster; (2) evaluate regional wastewater pretreatment ordinance technical TDS increment; and (3) annual reports on salt balance (Watermaster responsibility). (Status: In progress),

- MWD Dry Year Yield Conjunctive Use Ion Exchange Projects—Construct connections to the NRW system (IEUA implementation responsibility) in conjunction with Upland, CVWD, Monte Vista Water District, Chino, Ontario, and Chino Hills for several proposed ion exchange projects. These projects will improve the water quality in the groundwater basin and improve its yield, especially during dry years, through participation in a conjunctive use program with MWD. (Status: In progress),

- NRW "Pass Through" Rates- IEUA staff developed pass through rates and budget impact analysis for existing industrial customers. The goal was to "pass through" charges from LACSD and SAWPA to industrial customers for using their non-reclaimable waste systems,

with addition of only minimal charges to cover the IEUA administrative expenses. This action will encourage exporting more salts from the Chino Basin by connecting more industries to discharge their brine wastes to the system. The contract with Niagara Bottling Company was completed as a "case study" of this effort. The "Pass Through" rates will provide economic incentives for existing regional industries to divert their discharge to the NRW system, if their effluent TDS concentration is above 500 mg/L. This action is a key to the Chino Basin OBMP strategy. (Status: Completed),

- Chino Desalter "SARI" Capacity Alternatives—In April 2004, IEUA made an agreement with Chino Desalter Authority (CDA) to sell IEUA owned SARI capacity to the CDA to handle the brine waste from the Chino I Desalter Expansion and the future Chino II Desalter. The revenue from this sale transaction was $14.25 million. Approximately $4.73 million from the sale is expected to be deposited into IEUA's Regional Capital Improvement Fund (RC Fund) and $9.51 million is expected to be deposited into the NRW Capital Improvement Fund (NC Fund). (Status: Completed), and

- Leasing of Temporary SARI Capacity to Lewis Operating Company-IEUA had made an agreement with Lewis Operating Company (LOC) to lease a portion of the SARI capacity for their Chino Preserve Expansion. IEUA has made this lease available to LOC until City of Chino has completed the design and construction of the Pine Ave. interceptor sewer. Once the construction of the Pine Ave. interceptor is completed the California Institute for Women (CIW) stops discharging to the SARI and starts discharging to the Pine Ave. interceptor, which will discharge to the IEUA's Regional Plant No. 5. (Status: Completed).

Organics Management

The Agency's long-range plans for treating and utilizing biosolids as well as dealing with the problems of dealing with manure and green waste generated within its service area were addressed in the Chino Basin Organics Management Business Plan, dated May 31, 2001 and related Organics Management Strategy Technical Memoranda. The Business Plan was developed to be consistent with the IEUA's mission to protect public health, the groundwater basin, and the environment (e.g., reduce air pollution and improve water quality). The Board certified the Programmatic EIR for the Business Plan in June 2002 and adopted the Business Plan together with the WFMP and the Recycled Water Feasibility Study in August 2002.

To the extent it is economically feasible, the IEUA's organics management strategy seeks to protect the Chino Groundwater Basin from infiltration of salts and nitrogen compounds generated on dairies in order to avoid the future cost of removing such contaminants from the groundwater. As a result, the Business Plan is an integral tool to implement the Chino Basin Watermaster's Optimum Basin Management Plan. The Business Plan included the implementation of two key initiatives. The first is a comprehensive renewable energy reliability program, which has resulted in the construction of two dairy manure digestion facilities to generate methane gas and divert salts from the groundwater basin. The second is a local organics recycling program that includes the local communities as partners to divert organic solids from landfill disposal and to be consumers of recycled organic products generated from within the community. Along with the IEUA Co-Composting Facility which opened in 1996 to compost dairy manure with municipal biosolids, the two manure digestion facilities have diverted a

significant amount of pollutants: 118,000 tons of total dissolved solids (salt), 239 tons of nitrate-nitrogen, and 4,980 tons of ammonia.

In partnership with the County Sanitation Districts of Los Angeles County (CSDLAC), IEUA formalized an agreement implementing the joint goal of development of a sustainable biosolids management project. This Joint Powers Agreement (JPA) outlines the design, construction and operation of a biosolids composting facility, called the Inland Empire Regional Composting Facility (IERCF), to be located adjacent to the IEUA Regional Water Recycling Facility No. 4, located in Rancho Cucamonga, CA. This new composting facility will replace IEUA's Co-Composting Facility located in Chino, CA. The transition to the IERCF and decommissioning of the existing Co-Composting Facility is scheduled for late 2005/early 2006. While it is anticipated that the majority of biosolids generated at the IEUA's water recycling facilities will be made into compost at the Inland Empire Regional Composting Facility, IEUA will continue evaluating several options that will provide a diverse, yet cost-effective, long-term sustainable biosolids recycling portfolio.

Ten Year CIP Costs and Financing

The Agency's budget and Ten-Year Capital Improvement Program are divided into several different program areas:

- Wastewater Collection, Treatment, and Disposal (RC Fund)
- Recycled Water Program (WC Fund)
- Recharge Water Program (RW Fund)
- Non-reclaimable Waste System Program (NC Fund)
- Organics Management Program (OM Fund)

By far the largest fund/program area, in terms of costs, is the RC Program, as illustrated in the figure below. This year's TYCIP recommends $356 million in capital project expenditures for the RC Program over the next ten years.

operated with the City of Ontario and will provide IEUA with at least 9 mgd of capacity that can be used to bypass flow from the RP-1 Service Area to the RP-5 Service Area.

RP-5 began discharging treated wastewater through its outfall to Chino Creek in March of 2004. Liquids treatment operations at RP-2 were discontinued shortly thereafter. Current growth projections indicate that an expansion of RP-5 may be needed in the second half of the Ten Year Planning Period.

The recommended financing for this TYCIP is from several different sources. No additional debt service issues (revenue bonds) are planned or needed to finance the TYCIP. Within the RC Program, grants are expected to total $9.5 million for wetlands and energy efficiency projects. The key sources of revenue for the TYCIP are property taxes ($186 million) and supplemental capital contributions ($287 million). Supplemental capital contributions come from calls to Contracting Agencies for Capital Capacity Reimbursement Payments (CCRP), which are derived from connection fees. The expected revenue from Reimbursement Payments depends on the number of new EDUs added to the Regional sewerage system each year. The expected number of EDUs is forecasted based on growth projections. A conservative EDU growth rate of 8,500 per year for the first two years, followed by 5,000 per year for the last two years was assumed for the revenue projections. (Actual growth projections are even higher, as discussed in Chapter 2).

In the past, it has been assumed that the CCRP will be increased at the rate of inflation in construction costs, estimated at an average of 3% per year. Starting in FY 2005/2006, the annual increase in the CCRP is calculated as the ten year average Engineering News Record (ENR) construction cost index for Los Angeles County (ENRLA). The current (FY 2005/2006) Capital Capacity Reimbursement Payment amount is $4,000 per EDU. It was raised from $3,905 per EDU by the Board in March of 2005.

The recommended financing for the Regional Program is adequate to fund the Ten-Year Capital Improvement Plan. The figure below shows how gross revenues and costs vary throughout the ten years, affecting the combined working capital and Member Agency reserves. Starting with a projected combined reserve balance of $77 million at the beginning of FY 2005/2006 with initial costs set to zero, cumulative revenues are projected to exceed costs during the next ten years, leaving an ending combined reserve balance of $59 million.

programs IEUA is involved in, and also the interrelationship of the facilities that serve these programs. The continued success of the IEUA service area is heavily dependent on a high- quality, dependable water supply which in turn is dependent on sound conservation and waste management practices. A major tenet of the Chino Basin Resource Planning Agencies (IEUA, Chino Basin Watermaster, Chino Basin Water Conservation District, Chino Basin Desalter Authority, SAWPA, MWD) is to emphasize water recycling and to minimize the importation of MWD water supplies to the maximum extent possible. This philosophy resulted in a 2002 WFMP that incorporated a water recycling element for direct delivery and conservation of recycled water through groundwater recharge. It included an Organics Management Strategy for recycling the solids by-products of wastewater treatment and an Energy Management Strategy that emphasized self generation with recycled waste management by-products.

The primary objective of the Master Plan Implementation Strategy will be to improve utilization of existing facilities while expanding these facilities to meet the rapid growth in the IEUA service area. The implementation plan will focus on the development of program areas such as RP-1 to coordinate and optimize the capital improvements in that general area. Other program areas include the remaining treatment facilities, recycled water facilities, energy facilities, etc.

The resources necessary to continue the development and integration of new programs and facilities will continue to be from responsible fiscal management. To this end, on-going evaluations as well as evaluations in the Master Plan Implementation Strategy will prioritize and make the best use of future capital dollars by evaluating projects such as:

- **NRW System** -- How can the NRWS be fully utilized to improve water quality and defer expansions at RP-4 and RP-5?,
- **RP-4 Solids** -- When should organic solids be processed at RP-4 to minimize cost and increase energy production?,
- **Food Waste** – Do the existing anaerobic digester waste treatment systems have sufficient capacity to accept new waste streams (food waste) to enhance renewable energy production?,
- **CMOM** – How will implementation of the program for Collection System Maintenance Operation and Management (CMOM) and asset management affect future facility design and planning?,
- **System Automation** – How can the facilities in the system be automated to reduce staffing needs?,
- **Recycle Stream Treatment** -- Is side stream treatment economical and is it needed now based on excess system capacity?,
- **RP-5** – How should RP-2, RP-5, and the Carbon Canyon Water Recycling Facility be integrated and how should the RP-5 site be developed to optimize available land?,
- **RP-1 Aeration System** – How should secondary treatment "Train D" be designed to improve treatment efficiency, hydraulic capacity and redundancy in "Trains A through C?",

and

- **Technology** -- Use of technology to further reduce operating costs and land requirements at the IEUA water recycling plants.

Key goals will be to reduce operating costs at IEUA water recycling plants through cost-effective capital improvements and to ensure environmental compliance. In addition, improvements to the plants to expand existing capacity to process wastewater to meet the rapid growth is a critical emerging issue.

1.0 INTRODUCTION

1.1 BACKGROUND

The Inland Empire Utilities Agency (IEUA) is a wholesale distributor of water and recycled water plus provides regional wastewater treatment services. It provides industrial and municipal wastewater collection through regional wastewater interceptors, two non-reclaimable waste pipeline systems, treatment at four regional treatment plants, biosolids management and other related utility services for a 242-square-mile area of western San Bernardino County. The IEUA closely coordinates its water resources management program in the Chino Groundwater Basin with the Chino Basin Watermaster, the San Bernardino County Flood Control District, the Chino Basin Water Conservation District, and local water and wastewater retail agencies.

1.2 IEUA's MISSION

In coordination with its Contracting Agencies, the IEUA has developed this Ten-Year Capital Improvement Program (TYCIP) to determine the capital spending requirements needed to meet future wastewater service needs, and coordinate and set priorities for future water supply, recycling, and wastewater capital projects. The IEUA provides regional wastewater-related service to seven Contracting Agencies:

City of Chino
City of Chino Hills
Cucamonga Valley Water District (CVWD)
City of Fontana
City of Montclair
City of Ontario
City of Upland

"The mission of the Agency is to supply imported and recycled water; collect, treat, and dispose of wastewater; and provide other utility-related services to the agencies it serves. The Agency strives to provide these services in a regionally planned, managed, and cost-effective manner which protects the public health and environment, and maintains a high level of public awareness."

The residents of the Chino Basin area voted to form the IEUA (originally incorporated as the Chino Basin Municipal Water District) in June 1950. The IEUA is governed by a five-member Board of Directors (Board), elected to represent individual areas or Divisions. The IEUA is a member of the Metropolitan Water District of Southern California (MWD) and the Santa Ana Watershed Project Authority (SAWPA) and has representatives on the MWD's Board of Directors and SAWPA's Commission. The IEUA, its Board, and staff, strive to ensure that reliable, cost-effective water utility services, which protect and enhance the environment while fostering economic development, are available when needed.

Figure 1-1 depicts the IEUA service area, each Contracting Agency's sphere of influence, and IEUA's Regional Treatment Plants.

1.3 WASTEWATER FACILITIES MASTER PLANNING

In August of 2002, the Regional Technical and Policy Committees recommended and the IEUA Board of Directors adopted a Wastewater Facilities Master Plan (WFMP). The IEUA's goal for the Master Plan was to coordinate, in an integrated water resources planning framework, the planning of all current and future wastewater facilities into a single comprehensive document for ultimate growth (2050) in its service area. The WFMP is the primary policy guiding the development of the Agency's TYCIP.

Some of the objectives of the WFMP were to: (1) identify facilities that need to be replaced or expanded in the near- and long-term to meet projected growth and wastewater flow needs; (2) develop a cost-effective, phased implementation plan; (3) determine space and location needs for additional or expanded treatment facilities; (4) develop strategies for flow diversion between service areas to optimize existing treatment capacity utilization; and (5) maximize water recycling, energy efficiency, and organics recycling. The IEUA's water recycling, organics management, and energy management programs are interrelated and dependent on the future of the IEUA's wastewater facilities expansions.

1.4 RELATED PLANNING ACTIVITIES

This TYCIP is consistent with the WFMP and Programmatic EIR (certified on June 28, 2002). The WFMP, along with the Recycled Water Feasibility Study and implementation strategy as well as the Organics Management Strategy Business Plan, constitute a "Program Master Plan." It integrated all related planning activities into one comprehensive document in order to address the environmental concerns of the overall effects of the WFMP projects contemplated by the IEUA. This comprehensive planning process is illustrated in Figure 1-2. The various related planning documents are described briefly below.

1.4.1 Chino Basin Watermaster's Optimum Basin Management Plan (OBMP)

The OBMP for the Chino Basin was prepared by the Court-appointed Watermaster to address groundwater quality problems and identify groundwater management opportunities to be pursued for the benefit of the basin resources. The purpose of the OBMP was to develop a water quality and quantity based management plan for the Chino Groundwater Basin. The OBMP was intended to allow continued reliance on groundwater for beneficial uses within the basin - while minimizing demand for imported water - and encourage the beneficial use of the large available storage space in the aquifer system.

The OBMP addressed the need to develop additional water sources within the Chino Basin to meet future demands through water quality treatment, groundwater recharge, and water recycling programs. This Ten-Year Program is consistent with Watermaster's OBMP. A looped pipeline, along with storage reservoirs, and pump stations has been constructed that expand and interconnect the IEUA recycled water distribution system with local recycled water customers as well as groundwater recharge basins. Construction and improvement of 18 groundwater recharge basins have been completed, allowing for conservation of stormwater, recycled water, and imported water in the underground Chino Basin. The MWD Dry Year Yield Program funds six new groundwater treatment facilities that allow optimal use of the Chino Basin groundwater resource in accordance with the goals of the OBMP.

1.4.2 IEUA Recycled Water Feasibility Study

The IEUA prepared a Recycled Water Feasibility Study, adopted by the Board of Directors in August 2002, which delineated the Agency's recycled water program through the year 2020. In 2004, IEUA initiated development of the Regional Recycled Water Program Implementation Plan, which updated information from the 2002 study. In 2005, the IEUA Recycled Water Program Implementation Plan identified additional future recycled water demand, primarily in the developing areas of the cities of Chino and Ontario. IEUA recognizes that water recycling is a critical component of an effective water resources management strategy; over the years, recycled water will become a larger portion of the overall water resources supply mix for the Chino Basin. Water recycling will help "drought proof" the Basin, help achieve the objectives of the OBMP, and provide a lower cost water supply to all the residents within IEUA's service area.

IEUA's adopted Recycled Water Feasibility Study (August 2002), indicated that by the year 2020 the projected use of recycled water would exceed 70,000 acre-feet per year (AFY), with over 1,700 customers projected to be connected to the regional recycled water distribution system. Subsequent implementation of the 2004 Recycled Water Program Implementation Plan in 2005 showed that a total of 95,000 AFY of recycled water could be delivered to over 1,900 potential customers. IEUA will recharge up to 33,800 AFY of recycled water (blended with stormwater and imported water to meet the overproduction replenishment needs) into the Chino Groundwater Basin and facilitate direct deliveries of over 61,000 AFY of recycled water to local customers. IEUA's goal is to use as much recycled water for local beneficial uses as is economically practical and replenish the Chino Groundwater Basin. (IEUA received a permit for recycled water recharge on April 15, 2005).

The 2002 Feasibility Study recommended and the 2004 Recycled Water Program Implementation Plan confirmed that interconnection all four of IEUA's regional treatment plants in a looped distribution system would maximize beneficial use of recycled water, increase system reliability and flexibility, and provide other operational and cost reducing benefits. The looped system will also allow more customers to be served and provide the flexibility to release surplus recycled water to spreading basins throughout the Basin for recharge.

Over 50 projects with multiple priorities consisting of pipelines, pump stations, and reservoirs have been identified to be implemented over the next ten years (in two year intervals). IEUA is seeking outside funding, grants and low interest loans totaling $200 million, for the program from the State of California (Department of Water Resources (DWR)) and State Water Resources Control Board (SWRCB) and the U.S. Bureau of Reclamation (USBR). In 2003, IEUA amended its original (1996) local projects program agreement with MWD to include all four wastewater treatment plants. The original 1996 agreement with MWD only allowed recycled water deliveries from the Carbon Canyon Water Reclamation Facility. The program will provide IEUA with over $2 million annually from the $154/AF rebate (up to 13,500 AFY).

1.4.3 Recharge Master Plan

The Groundwater Recharge Program is a comprehensive plan to increase artificial groundwater recharge within the Chino Basin using stormwater, recycled water, and imported water. A component of the Chino Basin Watermaster's OBMP, the recharge program is described in the Recharge Master Plan, Phase II Report (August, 2001). In January of 2002, the IEUA Board of Directors approved the Recharge Master Plan Implementation Memorandum of Agreement, between Chino Basin Watermaster, Chino Basin Water Conservation District, San Bernardino County Flood Control District (SBCFCD), and IEUA. Members of these four agencies have formed a Groundwater Recharge Coordinating Committee to implement the $40-million program entitled the Chino Basin Facilities Improvement Program (CBFIP) resulting in construction projects to improve basin recharge facilities. The CBFIP will maximize recharge capacity, protect and increase the yield of the Chino Basin, increase the amount of recycled water that can be recharged, and improve groundwater quality. Construction and improvements have been made to 18 recharge basins with a total potential recharge capacity of 114,000 AF. Construction and improvement of two additional recharge basins will increase total potential recharge capacity to 134,000 AF.

Additional projects are needed to enhance the Groundwater Recharge Program. A $5 million grant from DWR will provide partial financing of the following project components:

- New pipelines for delivery of stormwater, recycled water, and imported water;
- Improvements to the new SCADA system (addition of remote basins);
- Construction of Internal berm spillways;
- Construction of a new MWD turnout on the Rialto Pipeline;
- Construction of nine new sets of lysimeters and nine new groundwater monitoring wells;
- Addition of five new recycled water turnouts to the IEUA Regional Recycled Water Distribution System.

1.4.4 Santa Ana Integrated Watershed Program

The Santa Ana Integrated Watershed Program (SAIWP) consists of six major elements:

- Water storage to drought-proof the watershed by storing up to 1.3 million acre-ft (MAF) of new water underground throughout the Santa Ana River Basin,
- Water quality improvement to mitigate negative impacts from past agricultural, industrial and residential point and non-point source pollutants,
- Implementation of water recycling as a means of reducing the area's overall need for imported water,
- Development of flood protection along the main stem of the Santa Ana River,
- Enhancement of wetlands environment and habitat to restore the Pacific Flyway, and

- Recreation and conservation to bring additional recreational opportunities and increase public awareness of the Santa Ana River's environmental needs and purposes.

SAWPA is pursuing these elements simultaneously based on the availability of state grant funding and the aggregated needs of SAWPA member agencies, including the IEUA, water districts, cities, counties, and several environmental groups.

1.4.5 Maximum Benefit Basin Plan

The Regional Water Quality Control Board, Santa Ana Region, (Regional Board) adopted amendments to the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) on January 22, 2004 incorporating a "maximum benefit" proposal recommended by IEUA and Chino Basin Watermaster. Maximum Benefit Basin Plan establishes new groundwater Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) water quality objectives and wasteload allocations that allow the use of recycled water for groundwater recharge while providing reasonable protection of the groundwater quality in the region. The Maximum Benefit Basin Plan was an outgrowth of the "TIN/TDS Task Force" in which IEUA participated since 1995/96. The Task Force included the Regional Board and 22 water supply and wastewater agencies throughout the region. Coordinated by SAWPA, the Task Force completed multimillion dollar studies to review groundwater TDS and nitrogen objectives, groundwater subbasin boundaries, the TIN and TDS wasteload allocations and other components of the Regional Board's nitrogen and TDS management plans. The purpose of this study was to develop more scientifically defensible water quality objectives and avoid any unnecessary constraints on water recycling opportunities.

Reuse of recycled water for groundwater recharge is a critical component of the OBMP and water supply plans for the region. As part of the Maximum Benefit Basin Plan, IEUA and Chino Basin Watermaster have committed to a specific set of projects and requirements in order to demonstrate that the water quality of the groundwater basin is protected and that the plan provides the maximum benefit to the users of the groundwater basin. These commitments include:

- Surface water and groundwater monitoring programs,
- Chino Desalters (consistent with OBMP requirements of 40 mgd by 2020),
- Recharge facilities/conjunctive use program,
- Recycled water quality management (through industrial waste source control and optimum utilization of the IEUA's non-reclaimable waste (NRW) system), and
- Hydraulic control to protect the Santa Ana River quality (consistent with the Orange County Water District and IEUA Memorandum of Understanding).

If IEUA and Chino Basin Watermaster achieve timely and appropriate implementation of these commitments, then the Basin Plan's "maximum benefit" water quality objectives will be applied instead of more restrictive historical "antidegradation" objectives. This will result in significant savings to the Agency for outside water imports and wastewater treatment costs.

1.4.6 Chino Basin Organics Management Strategy Business Plan

The Chino Basin Organics Management Business Plan developed a strategy to manage the organics in the Chino Basin, including biosolids, dairy animal manure, and composting of local community green waste material. The Business Plan was published in May 2001, along with a Project Report containing ten Technical Memoranda, which provided the background and basis for the recommendations in the Business

Plan. The IEUA Board of Directors certified the Programmatic EIR for the Business Plan in June 2002 and adopted the Business Plan together with the Wastewater Facilities Master Plan and Recycled Water Feasibility Study in August 2002. The Business Plan presented specific short-term and long-term recommendations as well as outlining of the steps and considerations that must be addressed in implementing projects consistent with the IEUA's goals and mission.

Construction of the Inland Empire Regional Composting Facility (IERCF) is scheduled to be completed in late 2005. The facility will convert the majority of biosolids generated at the IEUA's water recycling facilities into compost. IEUA will continue evaluating several options that will provide a diverse, yet cost-effective, long-term sustainable biosolids-recycling portfolio. The Complete-Mix Anaerobic Manure Digester project will produce energy from methane gas that will be used by the Agency's regional water recycling facilities and local groundwater desalination facilities. The Complete-Mix Anaerobic Manure Digester is planned to be completed in FY 2005/2006. The existing RP-5 Renewable Energy Digester Facility will be expanded and modified to generate additional digester gas which will be used to power Agency facilities. This Ten-Year Plan is consistent with the Business Plan recommendations.

1.4.7 IEUA Adopted Seven-Point Emergency Energy Action Plan

In response to the uncertainty in energy pricing and supply experienced in the winter of 2000, IEUA developed a Seven-Point Emergency Energy Action Plan. Some of the goals of this plan were to:

1. Maximize the efficiency and self-sufficiency of existing office and plant operations,
2. Generate new local sources of energy and minimize external energy/fuel costs,
3. Maximize operational flexibility of plants to "roll off" the electric grid and natural gas sources, particularly during peak usage periods, and
4. Promote regional energy and water conservation programs.

Through this plan, the IEUA intends to build self-sufficiency and local control over long-term energy supplies and assist the region and California in meeting their energy needs.

1.4.8 Salinity Management Action Plan—Regionalization of NRW System to Maximize Salt Export

The IEUA and its contracting agencies are implementing a regional recycled water distribution system to serve recycled water for non-potable reuse and groundwater recharge. Salinity is a critical element of recycled water quality for recharge and many other uses. Reduced salinity will enhance the marketability of recycled water and help IEUA meet the goals of the OBMP and the Maximum Benefit Basin Plan objectives. Reduced wastewater salinity will also help IEUA to comply with effluent limitations for TDS in its wastewater discharge permits. IEUA developed a Salinity Management Action Plan in 2002. Some of the strategies that were identified included:

- optimizing the use of the IEUA's non-reclaimable waste (NRW) system by connecting more industries,
- reducing the use of water softeners in the area to decrease saline flows into the regional water recycling plants, and
- reducing the salt contributions from IEUA treatment plant operations.

The current NRW action plan, was developed through extensive coordination and discussion with the IEUA's Regional Technical and Policy Committees, the Chino Basin Watermaster, and the Regional Board. IEUA also expects to achieve substantial avoided costs and valuable benefits for the region as a result of implementation of the current NRW Action Plan. The Action Plan consists of the following:

- Water Softener Strategy—Developed a comprehensive program of incentives, public education materials, and model ordinances for new and existing residential and commercial water softeners for FY 2004/2005. Buyback Agreement with CSDLAC—IEUA relinquished 3 MGD of owned capacity in the NRW to LACSD in April 2004, which has lowered annual payments to CSDLAC by approximately 23% or $350,000 annually. The savings will be passed on to NRW customers through more favorable rates and charges. Also encourages the use of the NRW system by new and existing industries to discharge their saline effluent and increase the salt export,

- Implementation of the Maximum Benefit Basin Plan—Ensure compliance with the Maximum Benefit requirements and with the Memorandum of Understanding with the Orange County Water District and Regional Board. Critical near-term action items: (1) develop monitoring work plan with Watermaster; (2) evaluate regional wastewater pretreatment ordinance technical TDS increment; and (3) annual reports on salt balance (Watermaster responsibility),

- MWD Dry Year Yield Conjunctive Use Ion Exchange Projects—Construct connections to the NRW system (IEUA implementation responsibility) in conjunction with Upland, CVWD, Monte Vista Water District, Chino, Ontario, and Chino Hills for several proposed ion exchange projects. Projects will improve groundwater basin water quality and yield especially during dry years,

- NRW "Pass Through" Rates- IEUA staff developed a pass through rates and budget impact analysis for existing industrial customers. This action will encourage export of salts from the Chino Basin by connecting more industries to discharge their brine wastes to the system. "Pass Through" rates provide economic incentives for existing regional industries with effluent TDS concentrations above 500 mg/L to divert their discharge to the NRWS. Key component of the Chino Basin OBMP strategy,

- Chino Desalter "SARI" Capacity Alternatives—In April 2004, IEUA made an agreement with Chino Desalter Authority (CDA) to sell IEUA owned SARI capacity to the CDA to handle the brine waste from the Chino I Desalter Expansion and the future Chino II Desalter. The revenue from this sale transaction was $14.25 million. Approximately $4.73 million from the sale is expected to be deposited into IEUA's Regional Capital Improvement Fund (RC Fund) and $9.51 million is expected to be deposited into the NRW Capital Improvement Fund (NC Fund) (Status: Completed),

- Leasing of Temporary SARI Capacity to Lewis Operating Company-IEUA had made an agreement with Lewis Operating Company (LOC) to lease portion of the SARI capacity for their Chino Preserve Expansion. IEUA has made this lease available to LOC until City of Chino has completed the design and construction of the Pine Ave. interceptor sewer. Once the construction of the Pine Ave. interceptor is completed the California Institute for Women (CIW) stops discharging to the SARI and starts discharging to the Pine Ave. interceptor, which will be discharged to the IEUA's Regional Plant No. 5,

- The IEUA will avoid the cost of treating non-reclaimable industrial wastewater at IEUA's water recycling plants, which would require additional secondary and tertiary treatment capacity to handle the flow plus desalination facilities to remove TDS,

- A resulting economic benefit to IEUA is the ability to use 20,000 to 25,000 acre-feet per year of recycled water for groundwater recharge instead of more expensive imported water,
- The avoided costs achievable by maximum utilization of the NRW System are about $430 million over the next ten years, and
- There will also be additional revenues from the sale of unused capacity, either: (1) as part of the CSDLAC buyback agreement; (2) for the Chino Desalters; (3) for local ion exchange groundwater treatment projects; or (4) for local development in unsewered areas.

The NRW Action Plan continues the IEUA Board's policy of phased implementation of budgets and rates in order to provide economic incentives for the export of brine wastes through the NRW system. The Agency's FY 2005/2006 Budget and this Ten-Year CIP incorporate specific budget options that were developed in coordination with the IEUA's Regional Technical and Policy Committees. Further details are provided in Chapter 6.

1.4.9 IEUA 2005 URBAN WATER MANAGEMENT PLAN

IEUA is updating the 2000 Urban Water Management Plan (UWMP) in accordance with the State of California Law. The 2005 UWMP describes all water supplies and demands within the IEUA service area.

1.5 ENVIRONMENTAL DOCUMENTATION

To comply with the California Environmental Quality Act (CEQA), IEUA certified a Programmatic Environmental Impact Report (EIR) on June 28, 2002. It included IEUA's Wastewater Master Plan, Organics Management Business Plan and the Regional Recycled Water Program. Supplements to the Programmatic EIR are prepared, when necessary, as specific project elements are better defined during each project design.

1.6 PURPOSE OF THIS TEN-YEAR PLAN

Pursuant to the terms of the Regional Sewage Service Contract, a TYCIP is prepared each year to identify capital spending requirements needed to meet the growth forecasts of IEUA's Contracting Agencies. The forecasted capacity demands of the Contracting Agencies are compared to the expected dates of completion of capital improvement projects necessary to meet those demands. Secondly, the expected costs are compared against the forecasted revenues based on the IEUA's budget and financial analyses. This allows projects to be prioritized and the Capital Capacity Reimbursement Payment (connection fee) to be adjusted to meet the identified needs of the system.

This Ten-Year Program includes ten-year and fifty-year wastewater flow forecasts, a description of the most significant capital improvement projects planned to meet those forecasts, a summary of the costs associated with the program, and a brief description of the financing package planned to implement the program. The financing program is consistent with the Agency's proposed Budget for FY 2005/2006 and the five-year business plan contained in that budget.

Besides keeping pace with forecasted capacity demands, this Ten-Year Program continues with implementation of the long-term programs established in the Wastewater Facilities Master Plan and related

planning documents described above. It implements proactive solutions to challenges facing the Agency. The program increases self-generation of energy and improves energy efficiency--developing biogas and dairy waste digester gas as renewable energy sources and avoiding high energy costs and possible future shortages. It improves local water supplies, reducing the need for expensive imported water; and provides a long-term, sustainable solution to the problem of organics management, recycling 100 percent of the Agency's biosolids. Within the foreseeable future, the Agency expects to realize substantial avoided costs as a result of these initiatives.

1.7 MAJOR FACILITIES

1.7.1 Water Recycling Plants

Figure 1-3 illustrates the service area boundaries for IEUA's four wastewater treatment and water recycling plants. The four Regional facilities are: Regional Plant No. 1 (RP-1), Regional Plant No. 4 (RP-4), Regional Plant No. 5 (RP-5), and Carbon Canyon Wastewater Reclamation Facility (CCWRF). IEUA uses regional interceptors to bypass flow from one treatment plant to another. Currently, the regional interceptors can bypass flow from RP-4 to RP-1 and from CCWRF to RP-5. Additional regional interceptors are under construction, which will allow bypass of flow from RP-1 to RP-5. The following section describes the regional interceptors in more detail. IEUA recently acquired a small satellite water recycling facility, which produces recycled water used on the Upland Hills Golf Course. IEUA has also been evaluating sites for possible future additional satellite water recycling facilities.

RP-5 began treating and discharging wastewater in March 2004. At the same time, discharge was ceased from Regional Plant No. 2 (RP-2). Since portions of RP-2 are located in the 100-year flood plain, liquid wastewater processing at RP-2 has been discontinued and the plant is being used only for processing solids from RP-5 and CCWRF. Solids processing at RP-2 will continue until the plant reaches the end of its useful life or until the RP-2 land can no longer be leased from the U.S. Army Corps of Engineers. Some land at RP-5 has been reserved for future solids processing facilities.

1.7.2 Regional Interceptor System

Diverting or bypassing flow from one service area to another is possible using regional trunk sewers (interceptors). Figure 1-4 illustrates the existing regional trunk wastewater system and tributary areas. Domestic wastewater flows can be bypassed from RP-4 to RP-1 and also to CCWRF and RP-5 and/or the Non-Reclaimable Waste (NRW) System, while domestic wastewater flows may be diverted from CCWRF to RP-5 and to the Santa Ana Regional Interceptor (SARI). The main routes for bypassing/diverting flow are:

- Operators can bypass up to 6 million gallons per day (mgd) from RP-4 to RP-1 through the Etiwanda Interceptor,
- Operators can bypass several mgd from CCWRF to RP-5 through the Chino Interceptor,
- A portion of the flow (approximately 2.5 mgd) from the Cities of Upland and Montclair can be diverted either to RP-1, through the Montclair Interceptor, or to CCWRF through the Westside Interceptor. About 90 percent of the time, the flow goes to CCWRF, but it can be pumped to RP-1 by the Montclair Pump Station, and
- A portion of the flow from the City of Ontario, which is currently pumped to RP-1 for treatment, is anticipated to become tributary to RP-5 upon completion of the Eastern Trunk Sewer, also referred to as the RP-1/RP-5 Bypass.

As shown on Figure 1-4, IEUA has three wastewater lift stations:

- The Montclair Lift Station pumps wastewater from portions of Montclair, Upland, and Chino to RP-1,
- The Prado Park Lift Station pumps wastewater from the Prado Regional Park in the City of Chino to RP-5, and
- A new lift station was constructed at RP-2 in FY 2003/2004 to pump the flow from the southeastern portions of the cities of Chino and Chino Hills to RP-5.

2.0 WASTEWATER FLOW PROJECTIONS

Exhibit I at the end of this report shows wastewater flow projections for each regional plant's current service area. The "unadjusted" forecasts do not reflect any of the current or planned diversions or bypasses that were discussed in Chapter 1. Exhibit II shows the unadjusted flow projections for the combined RP-1/RP-4 service area compared to planned total combined RP-1/RP-4 service area treatment capacity. Exhibit III shows the same information for the combined CCWRF/RP-5 service area based primarily on equivalent dwelling unit (EDU) growth projections that were provided by IEUA's wastewater Contracting Agencies. Appendix A contains the incremental EDU growth information provided by the Contracting Agencies tabulated by service area. Growth in the number of EDUs was added to the current committed capacity to project future flows.

2.1 ANTICIPATED GROWTH

As indicated in Appendix A, the average rate of EDU growth over the next ten years was projected by the Contracting Agencies at 8,497 EDUs per year. Wastewater flow rates have been projected from these data using a factor of 270 gallons per day per EDU, as specified in the Regional Sewage Service Contract—Exhibit J. The anticipated flow increases within the system are summarized in Table 2-1 ("Regional System Flow and Capacity Utilization Summary").

An almost 37-percent increase in total system flow is expected over the course of the next ten years. Last year's growth forecast projected only a 30-percent increase. The higher forecast is due to increased development activity within the RP-4 and RP-5 service areas. Flows are expected to approximately double in those areas. Higher growth in the northern parts of the cities of Fontana and Rancho Cucamonga within the RP-4 service area has been spurred by the construction of the 210 Freeway. Annexation of the agricultural preserve in southeastern Chino and southern Ontario and approval of development plans in those areas will create more wastewater in the RP-5 service area.

For each service area, Table 2-1 compares the anticipated regional plant flows on both an "unadjusted" basis and an "adjusted" basis. The unadjusted flow is the flow from the current service area of the regional plant, assuming no diversions or bypasses between Regional Plants. The adjusted flow takes into account the planned diversions and bypasses.

With the planned regional plant expansions, diversions, and bypasses, the overall treatment plant capacity

utilization is expected to remain at about 79 to 80 percent. The planned expansions include:

- Expansion of RP-4 from 7 mgd to 14 mgd occurring in FY 2006/2007 and from 14 mgd to 21 mgd in FY 2011/2012 (see Exhibit V), and
- Expansion of RP-5 from 15 mgd to 27 mgd occurring in FY 2010/2011 (see Exhibit VII).

The expansions at RP-4 and RP-5 will provide sufficient capacity (103.4 mgd) to treat the forecasted total system flow of 83.1 mgd in 2014/2015.

This Ten-Year Program results in the capacity utilization at RP-1 and CCWRF being higher than at the other plants. This is partly due to the need for system equalization. The Ten-Year Program allows the Agency to achieve the twin goals of: (1) increasing reuse potential in the Combined RP-1/RP-4 Service Area by keeping more flow at RP-4; and (2) optimizing capacity utilization at the other three regional plants by balancing flows between the Combined RP-1/RP-4 Service Area and the Combined CCWRF/RP5 Service Area.

Table 2-1: Regional System Flow and Capacity Utilization Summary

Forecasted Average Flow for Fiscal Year (MGD)								
	FY 2004/2005 Forecast				FY 2014/2015 Forecast			
Treatment Plant	Estimated Service Area Flow	Adjusted Influent Flow	Capacity	Percent Capacity Utilization	Estimated Service Area Flow	Adjusted Influent Flow	Capacity	Percent Capacity Utilization
	(Unadjusted)			(Adjusted)	(Unadjusted)			(Adjusted)
RP-1	39.2	39.2	44.0	89%	49.3	40.9	44.0	93%
RP-4	6.2	6.2	7.0	89%	12.4	15.0	21.0	71%
CCWRF[1]	10.0	8.8	11.4	77%	10.8	10.8	11.4	95%
RP-2/RP-5	5.4	6.6	15.0	44%	10.6	16.4	27.0	61%
Total	60.8	60.8	77.4	79%	83.1	83.1	103.4	80%

[1]Unadjusted CCWRF service area includes all flow from Montclair Diversion.

3.0 REGIONAL WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM SUMMARY

3.1 OVERVIEW

The capital improvements planned for the Regional Wastewater System are implemented according to the recommendations in the Agency's adopted Wastewater Facilities Master Plan (WFMP). A basic requirement of the capital improvement program is to keep pace with the needs for wastewater treatment and solids handling capacity based on future growth projections provided by the Contracting Agencies. The adequacy of the capital improvement program is demonstrated by the projected flow and capacity comparisons for individual regional plants presented in Exhibits IV through VII at the end of this report. Adjustments to the forecasted flow curves take into account the Agency's ability to make planned diversions within the system to optimize the use of existing capacity. Capacity-related capital improvements are also indicated on the adjusted flow curves.

Because of forecasted growth, expansion of existing wastewater facilities will be required to treat expected domestic wastewater flows. The increases in regional plant treatment capacity planned for the next ten years to keep pace with the forecasted growth include the following:

- Complete expansion of RP-4 liquids treatment capacity from 7 to 14 mgd in FY 2006/2007,
- Complete expansion of RP-4 liquids & solids treatment capacity from 14 to 21 mgd in FY 2011/2012, and
- Expand RP-5 liquids treatment capacity from 15 to 27 mgd—in FY 2010/2011 based upon current growth trends.

Following the recommendations of the WFMP, the Agency plans to expand RP-4 first to facilitate recycled water use at higher elevations and to expand RP-1 at a later date. This will allow better quality water (lower in salts) to be treated higher in the watershed where it can be utilized for industrial applications, irrigation, and groundwater replenishment. Opportunities for water recycling will be maximized by diversion of wastewater to RP-4 from some portions of CVWD and the City of Fontana now tributary to RP-1. Construction of the San Bernardino Avenue Pump Station and Force Main are part of the WFMP and Ten-Year CIP.

Completion of the eastern RP-1/RP-5 bypass pipeline by May 2006 will help to optimize existing system capacity and defer the need for construction of more RP-1 treatment capacity until beyond the TYCIP window. It will also have odor control benefits at RP-1 by eliminating the need for storing primary-treated

wastewater in equalization ponds. The pipeline will be jointly constructed and operated with the City of Ontario and will provide IEUA with at least 9 mgd of capacity that can be used to bypass flow from the RP-1 Service Area to the RP-5 Service Area.

Current growth projections indicate that an expansion of RP-5 may be needed by FY 2010/2011. The 2005 Master Plan Update will analyze the needs for capacity at RP-5 to handle service area flows, as well as bypass flows from other service areas, and solids recycle streams from other facilities.

In addition to providing needed liquids and solids treatment capacity, the TYCIP includes projects to improve energy efficiency and modernize facilities. Many of the projects have multiple benefits, including reduction of the weight of solids, reducing odors and lowering the nitrogen concentration in recycled water. The California Regional Water Quality Control Board, Santa Ana Region is imposing a lower nitrogen limit in new and renewed discharge permits. The TYCIP includes projects to reduce nitrogen at older facilities. When new or expanded facilities are constructed, the basis of design includes the anticipated lower nitrogen limits.

3.1.1 RP-1 SERVICE AREA

As indicated in Exhibit IV ("RP-1 Flow Forecast"), the gross service area flow tributary to RP-1 is expected to increase at an average rate of about 0.9 mgd per year over the next ten years. The WFMP projected that approximately 20 mgd of average daily wastewater flow may ultimately need to be bypassed from RP-1 to RP-5 because more wastewater is generated in the RP-1 Service Area than can be accommodated in the planned treatment facilities. The Agency intends to utilize the City of Ontario's master planned trunk sewers for the New Model Colony (i.e., the Eastern Trunk Sewer and the Western Trunk Sewer) to serve this purpose. Completion of the bypass will allow the City of Ontario to phase out the use of their lift stations which now pump wastewater to RP-1 from areas of the City that cannot gravity flow to RP-1. The Eastern Trunk Sewer portion of the RP1/RP-5 Bypass is expected to be completed by May 2006. The City of Ontario and IEUA entered into a joint use agreement by which they share the costs of design and construction and IEUA is guaranteed at least 9 mgd of average daily flow capacity in the trunk sewer.

The Bypass will also be utilized to facilitate odor control at RP-1. Through bypassing a portion of RP-1's peak dry weather flow, it will be possible to reduce or eliminate the need for storage of primary effluent in the large, on-site primary effluent equalization basins at RP-1, except during wet weather. The storage of primary effluent generates odors, and the Agency plans to reduce the need for primary effluent storage by bypassing the peak daily flows to RP-5 during dry weather.

The adjusted RP-1 flow projection in Exhibit IV includes bypassing 2 mgd from RP-1 to RP-5 for odor control. Also included is bypassing another 3.6 mgd as the City of Ontario phases out the use of lift stations that now pump wastewater to RP-1. It is expected that wastewater pumped by at least three of the City's lift stations will begin to flow by gravity to RP-5 through the Eastern Trunk Sewer and Kimball Interceptor in FY 2007/2008. By the end of the ten-year period, two more lift stations could be eliminated. In addition, in FY 2008/2009, with the completion of the first expansion of RP-4 and the San Bernardino Avenue Pump Station and Force Main, it is forecasted that at least 4 mgd will be diverted from RP-1 to RP-4.

The WFMP recommended process upgrades at RP-1 to cost-effectively maintain or increase treatment process performance and capacity as lower nitrogen limits take effect. A major project which was outlined in the WFMP, "RP-1 Secondary Treatment System Modifications/Install Blower #4," is scheduled to be designed and constructed between FY 2005/2006 and FY 2009/2010. The project will increase nitrogen removal while maintaining or increasing plant capacity. The TYCIP also includes a smaller aeration capacity and side stream

treatment project, including: "RP-1 Filtrate Treatment Expansion," which is scheduled to be completed in FY 2014/2015. The filtrate treatment expansion project will enable the solids dewatering filtrate to be recycled in-plant without adversely affecting the plant's ability to meet nitrogen limits. Currently, the filtrate is discharged to the non-reclaimable wastewater system with minimal treatment, but the Agency must pay for the pounds of pollutants (BOD and TSS) discharged. Recycling in the plant will save those costs and take advantage of excess secondary treatment capacity.

The Ten-Year Program includes several odor reduction projects at RP-1 that will provide comprehensive odor control in phases. The Phase 1A project (construction began in FY 2004/2005) includes most of the solids handling areas of the plant. Phase 1B (construction to begin in FY 2005/2006) includes the plant headworks, grit and screenings area, and rectangular primary clarifiers. The equalization project will not begin until FY 2014/2015, since the odors from the equalization basins can be controlled on an interim basis by discharging peak flows to the RP-1/RP-5 Bypass line. This approach was developed in the WFMP.

There are also several solids handling projects planned for RP-1. These projects will automate the dewatering building, replace the belt filter presses with centrifuges, increase dewatered solids storage hopper capacity, and improve the dewatered solids conveyance and truck loading system. These improvements will reduce labor, energy, and hauling costs associated with the dewatering operations. Improvements to the 3-phase digesters and digester gas storage system commenced in FY2004/2005.

The RP-1 capital projects are summarized in Table 3-1 below:

This Ten-Year Program is similar to last year's program for the RP-1 Service Area, with a few exceptions. Some of the major differences this year are the Dewatering Facilities Expansion, The Tertiary Filter Expansion, and The Filtrate Treatment Expansion.

Table 3-1: RP-1 Service Area —Major Capital Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
RP-1 Secondary Treatment System Modifications/Install Blower #4	Fiscal Year 2009/2010	$28.7
Upland Interceptor Relief Sewer—Phase II	Fiscal Year 2007/2008	$14.3
RP-1 Dewatering Facilities Expansion	Fiscal Year 2007/2008	$10.0
RP-1 Solids, Digester, and Gas System Improvements	Fiscal Year 2014/2015	$9.9
RP-1 Modernization	Fiscal Year 2010/2011	$4.4
RP-1 Tertiary Filter Expansion	Fiscal Year 2014/2015	$3.8
RP-1 Filtrate Treatment Expansion	Fiscal Year 2014/2015	$3.8
RP-1 Odor Control—Phase I	Fiscal Year 2005/2006	$3.3
RP-1 Cogeneration Fac Expansion	Fiscal Year 2006/2007	$1.5
RP-1 Secondary Flow Equalization System	Fiscal Year 2014/2015	$1.0
RP-3/Declez Park	Fiscal Year 2007/2008	$2.0
Total—Major RP-1 Projects		***$82.7***
Total—All RP-1 Projects		***$96.1***

3.1.2 RP-4 SERVICE AREA

As indicated in Exhibit V ("RP-4 Flow Forecast"), the RP-4 service area wastewater flow is expected to increase at an average rate of about 0.5 mgd per year over the next ten years. RP-4 will need to be expanded from 7.0 to 14.0 mgd by FY 2007/2008 and then from 14.0 to 21.0 mgd by FY 2011/2012 to keep up with projected growth. While construction is occurring at RP-4, some flow will be diverted to RP-1 through the Etiwanda Interceptor.

This Ten-Year Plan includes design and construction of the San Bernardino Avenue Interceptor, Pump Station and Force Main facilities coinciding with completion of the RP-4 expansion to 14 mgd. The City of Fontana will construct a new gravity sewer and divert a portion of the wastewater originating north of San Bernardino Avenue away from the Fontana Interceptor toward the intersection of San Bernardino Avenue and the San Sevaine Wash. (Currently, this wastewater flows by gravity through the Fontana Interceptor to RP-1). A pump station and force main will then be constructed by IEUA from the San Sevaine Wash to RP-4, where the wastewater will be treated and recycled.

The adjusted RP-4 flow forecast in Exhibit V indicates that RP-4 may be approaching full capacity at the end of FY 2011/2012. Bypassing of up to 6 mgd to RP-1 is possible using the Etiwanda Interceptor. To

avoid bypassing wastewater flow, a second expansion of RP-4 is needed in FY 2011/2012. This expansion is consistent with the WFMP, which projected that a second expansion of RP-4 would be needed before the year 2020.

The RP-4 capital projects are summarized in Table 3-2 below:

Table 3-2: RP-4 Service Area —Major Capital Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
RP-4 Liquids and Solids Expansion to 21 MGD	Fiscal Year 2011/2012	$60.0
RP-4 Liquids Expansion to 14 MGD	Fiscal Year 2007/2008	$30.5
San Bernardino Ave Pump Station/Force Main	Fiscal Year 2008/2009	$6.1
RP-4 Land Acquisition	Fiscal Year 2011/2012	$4.2
Total—Major RP-4 Projects		***$100.8***
Total—All RP-4 Projects		***$104.8***

For the RP-4 service area, this Ten-Year Program is similar to last year's program with one exception. The projected expenditures increased because the RP-4 liquids expansion project from 14 to 21 mgd now falls within the ten-year window.

3.1.3 CCWRF SERVICE AREA

Exhibit VI depicts the CCWRF historical flow rates and flow forecast. For the past few years, essentially all of the flow from the Montclair Diversion has been directed to CCWRF rather than RP-1 to avoid pumping costs. In mid-FY 2003/2004, just before the completion of RP-5, CCWRF was close to 100 percent of capacity and a small amount of Montclair Diversion flow was pumped to RP-1 or bypassed to RP-2. With RP-5 in operation, it is possible to balance flows operationally between CCWRF and RP-5 using the Chino Interceptor as a bypass line. It is expected that about 1.1 mgd will be bypassed from CCWRF to RP-5 until FY 2007/2008, when the CCWRF Tertiary Filter and Contact Tank Expansion/Upgrade project is completed.

Over the next ten years, the unadjusted service area flow tributary to CCWRF is expected to increase at an average rate of under 0.1 mgd per year. At this rate, it will not be necessary to expand CCWRF during the next ten years. This forecast is consistent with the WFMP, which projected the need to expand CCWRF to between 15 and 20 mgd between the years 2020 and 2030.

An additional 1.2 mgd of capacity became available at CCWRF in March 2004 when the Agency began sending the solids handling recycle streams generated at RP-2 to RP-5 instead of to CCWRF. The discharge permit for CCWRF allows 11.4 mgd to be treated at the facility. With the recycle flow eliminated from CCWRF, the available capacity for treating service area flow at CCWRF is 11.4 mgd.

The CCWRF capital projects are summarized in Table 3-3 below. The Ten-Year Plan includes a project to expand the tertiary filters and chlorine contact tanks to maintain the current 11.4 mgd of capacity while satisfying the current Title 22 design standards for water recycling plants. In addition, the Ten-Year Plan includes modification of the aeration system at CCWRF to increase energy efficiency and improve recycled water quality. The other major project is an expansion of the recycled water storage reservoir at CCWRF to better match recycled water availability to diurnal demand fluctuations. This year's Ten-Year Plan for CCWRF is similar to last year's plan, with the major difference being the inclusion of the project to expand the tertiary filters and chlorine contact tanks ($7 million budget).

Table 3-3: CCWRF Service Area —Major Capital Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
CCWRF Tertiary Filters and Contact Tank Expansion	Fiscal Year 2007/2008	$7.0
CCWRF Aeration System Modification	Fiscal Year 2006/2007	$3.1
CCWRF Chlorination Facilities	Fiscal Year 2005/2006	$1.3
Total—Major CCWRF Projects		***$11.4***
Total—All CCWRF Projects		***$13.1***

3.1.4 RP-2/RP-5 SERVICE AREA

Exhibit VII depicts the RP-2/RP-5 historical flow rates and flow forecast. Historically, much of the tributary area to RP-2 was unsewered agricultural and open space. The flow from the service area is expected to increase sharply in the next few years due to annexation, development, and sewering of those areas. Completion of the RP-1/RP-5 Bypass will bring more flow into the Regional System. The RP-5 unadjusted service area flow is projected to increase at an average rate of about 0.5 mgd per year. At the end of the ten-year period, the gross service area flow to RP-5 will be about 10.6 mgd. An additional 5.8 mgd will be bypassed to RP-5 from areas now tributary to RP-1. This includes 3.8 mgd from City of Ontario lift stations that will be retired when the RP-1/RP-5 Bypass is completed; and 2.0 mgd of diurnal peak flows from the RP-1 Equalization Basins.

The total adjusted influent flow rate to RP-5 may be as high as 16.4 mgd by the end of the ten years. The current total plant capacity is 15.0 mgd and current flow projections indicate that an expansion of RP-5 would be needed in the second half of the ten-year planning period. This is consistent with the WFMP, which projected the need for an expansion at RP-5 by the year 2010. This Ten-Year Plan includes an expansion from 15 to 27 mgd. The project is scheduled to begin in FY 2005/2006 and be completed in FY 2013/2014. This schedule may be adjusted depending on actual growth over the next few years.

The RP-2 and RP-5 capital projects are summarized in Table 3-4 below. This Ten-Year Plan includes a project for decommissioning the liquids treatment systems at RP-2. Equipment will be salvaged, reused elsewhere, or stored as appropriate. The RP-2 solids treatment systems will continue to handle the solids from RP-5 and CCWRF. Some solids handling improvements at RP-2 are provided in this Ten-Year Plan. Eventually, when the solids handling capacity at RP-2 is exceeded or the RP-2 facilities reach the end of

their useful life, the Agency intends to construct new solids handling facilities at RP-5. However, this is not planned for ten to twenty years. RP-2 has enough solids handling capacity for 30 mgd of wastewater flow, whereas the combined flows at RP-5 and CCWRF will only be about 26 mgd at the end of the ten-year period. In addition the grant funded RP-5 Renewable Energy Digesters (Dairy Digesters) will be used for municipal solids handling in the future.

Table 3-4: RP-2/RP-5 Service Area —Major Capital Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
RP-5 Expansion to 27 MGD	Fiscal Year 2013/2014	$66.0
RP-1/RP-5 Bypass (East)	Fiscal Year 2005/2006	$22.5
RP-5 Renewable Energy Generation Efficiency Project	Fiscal Year 2006/2007	$9.0
RP-5 System Facility Upgrade & Improvement	Fiscal Year 2007/2008	$7.7
RP-5 Secondary Flow Equalization System	Fiscal Year 2014/2015	$6.5
RP-5 Warehouse/Maintenance Facility	Fiscal Year 2009/2010	$6.0
Chino Creek Master Plan/Wetlands Project	Fiscal Year 2006/2007	$3.9
Chino Creek Park	Fiscal Year 2006/2007	$3.6
RP-2 Dewatered Cake Storage System	Fiscal Year 2008/2009	$3.3
Complete Mix Digestion Technology	Fiscal Year 2006/2007	$2.6
RP-2 Decommissioning	Fiscal Year 2010/2011	$1.8
Renewable Energy Project Digester Expansion/Modification	Fiscal Year 2005/2006	$1.6
RP-5/CCW Chlorine Tank Covers	Fiscal Year 2010/2011	$1.3
Total—Major RP-2/RP-5 Projects		***$135.8***
Total—All RP-2/RP-5 Projects		***$142.0***

The RP-5 Renewable Energy Generation Efficiency Project will be designed and constructed at the RP-5 Renewable Energy Facility to reduce the Agency' purchase of electrical power and advance the development of renewable energy through the use of both conventional and innovative power generation equipment. The design process will incorporate the use of biogas derived from manure digesters and wastewater plant digesters, as well as natural gas, and will investigate waste heat recovery and thermal ice storage.

The Complete-Mix Anaerobic Manure Digester project will demonstrate the application of complete-mix digestion technology for the processing of manure generated by dairies in the Agency's service area. It will provide an alternative to the plug-flow digestion technology that has been demonstrated by the Agency's RP-5 Renewable Energy Digester Facility. This project will produce energy from methane gas that will be used

by the Agency's regional water recycling facilities and local groundwater desalination facilities. The Complete-Mix Anaerobic Manure Digester is planned to be designed and constructed in FY 2004/2005 through FY 2005/2006.

The TYCIP also includes a project to expand and modify the existing RP-5 Renewable Energy Digester Facility. Improvements within the facility are expected to expand the digester's capacity from 225 wet tons per day to 315 wet tons per day and to generate additional digester gas which will be used to power Agency facilities. The Agency successfully tested digestion of food wastes at the RP-5 Renewable Energy Digester Facility. The expansion and modification projects for the RP-5 Renewable Energy Digester Facility include facilities to introduce food wastes in the digesters to enhance biogas production and improve the overall economics of the project.

This Ten-Year Plan also provides for completion of the site improvements around the new RP5/Headquarters complex. The Agency plans to complete the Chino Creek Park environmental restoration project which will provide stormwater management for the complex and utilize recycled water for ecosystem restoration as well as providing recreational benefits to the community. The major projects planned for the RP-5 treatment plant site are a warehouse/maintenance facility; perimeter walls, street improvements and access ways; and general land restoration and property development for the vacant and leased land around the site. The Agency also plans to prepare a Master Plan for Chino Creek, which receives effluent from two water recycling plants – RP-5 and CCWRF. The Chino Creek Master Plan will address how the stream can be modified, restored, and enhanced, emphasizing natural features and wetlands to improve water quality while meeting multiple objectives, such as flood control, habitat development, and recreation. Related to the Chino Creek Master Plan, there is a study to determine future uses of the RP-2 site including, possibly, urban runoff treatment or dairy waste/runoff treatment.

4.0 RECYCLED WATER CAPITAL IMPROVEMENT PROGRAM

The Recycled Water Program has been developed to be consistent with the recommendations of the IEUA Recycled Water System Feasibility Study, completed in 2002, and the 2005 Regional Recycled Water Program Implementation Plan. The Agency plans to construct a fully-integrated regional distribution system that will deliver recycled water to major industrial and municipal users and to groundwater recharge basins.

4.1 BACKGROUND

IEUA has been serving recycled water since the beginning of the Regional Contract in 1972. Initially recycled water was delivered to Whispering Lakes Golf Course and Westwind Park in Ontario and Prado Park and Golf Course. In the early 1990's IEUA planned and build the first phase of the Carbon Canyon Recycled Water Project which now serves several customers in Chino and Chino Hills.

IEUA also initiated planning of a regional recycled water delivery system. This planning effort culminated with the completion of the IEUA Regional Recycled Water Program Feasibility Study in January 2002. The Feasibility Study identifies facilities to deliver over 70,000 acre-feet of recycled water per year (AFY) to customers and recharge sites throughout the service area. In 2004, IEUA initiated development of the Regional Recycled Water Program Implementation Plan which updated information from the 2002 report. The Implementation Plan identifies additional future recycled water demand, primarily in the developing areas of Chino and Ontario increasing the total deliveries to approximately 93,000 acre-feet per year. The plan identifies a phased implementation over the next ten years with provision for additional expansion beyond the ten year planning horizon. The estimated cost of the facilities planned for the next ten years is $197 million to be funded by a combination of state and federal grants, state low-interest loans, MWD LRP rebates and Regional Program funds. The actual schedule of implementation will depend on the availability of grant funding. The following are significant events leading up to the 2004 Implementation Plan:

- 1972 Regional Contract , IEUA begins delivery of recycled water
- 1993 Recycled Water Master Plan
- 1995 Carbon Canyon Recycled Water System Plan
- 1998 Carbon Canyon Recycled Water System Initial Deliveries
- 2001 Recycled Water Facilities Planning Study
- 2002 Regional Recycled Water Program Feasibility Study
- 2002 Programmatic EIR

- 2003 SWRCB Grant ($5 million) Loan ($22 million) Approved
- 2003 Initiate Construction of Phase I Facilities
- 2004 Regional Recycled Water Program Implementation Plan
- 2004 Initiate Design of Phase II Facilities.

4.2 REGIONAL RECYCLED WATER PROGRAM:

The 2002 Feasibility Study and 2004 Implementation Plan included an assessment of the potential recycled water customers within the IEUA service area. Staff worked with the regional agencies to identify over 1,900 potential customers. This information was used to plan the regional and local recycled water distribution pipelines. Pipeline locations were selected to provide recycled water to the largest customers or groups of customers resulting in cost effective facilities. Ultimately, this distribution system layout will serve over 1,200 of the largest customers and supply over 93,000 AFY, which includes 33,800 AFY for recharge.

4.2.1 REGIONAL RECYCLED WATER PRIORITIES – In September 2000, the IEUA Board and Regional Technical and Policy Committees adopted a recycled water policy document which defines the roles and responsibilities of IEUA and the Regional Contracting Agencies for the construction and ownership of the regional and local facilities. Regional facilities are defined as facilities, pipelines, pump stations, and reservoirs which serve recycled water to a recharge site or to more than one Contracting Agency. Regional facilities will be constructed and owned by IEUA. Local facilities will deliver recycled water from the regional facilities to customers within a Contracting Agencies service area and will be the responsibility of the respective agency. Local facilities will primarily be pipelines (local laterals) and may also include some pump stations and reservoirs. In 2005, this policy will be updated to include provisions for: regional funding of local storage facilities which reduce regional storage needs; provision for reimbursement of regional facilities constructed by others (local agency or developer); and financing of local facilities and customer on-site retrofits.

The Regional Recycled Water Priorities consist of a looped pipeline system which connects all four Regional Water Recycling Plants. Future satellite plants, identified in the Wastewater Master Plan, will also be connected to the regional facilities. The regional facilities have been described in over 50 separate projects of pipelines, pump stations and reservoirs. These projects have been grouped into priorities. The priority of each phase was determined based on the amount of recycled water each phase could serve and the proximity of each phase to one of the plants or existing recycled water supply. Phase I and II of the program will deliver recycled water to most of the recharge sites since the recharge sites represent a significant recycled water use. The Regional Recycled Water Program Priorities are shown in Figure 4-1.

4.2.3 REGIONAL RECYCLED WATER PROGRAM SUMMARY – Table 4-1 summarizes the Regional Recycled Water Program schedule. This schedule is dependent on availability of state and federal grants and state low interest loans. Only project with current grant or loan agreements or active funding applications are included in the TYCIP.

Table 4-1: Recycled Water Program Schedule and Cost

Schedule	Number of Customers	Rec. Water Demand (AFY)	Capital Cost (millions)
Existing Facilities	100*	7,420*	-
2003/05 (Phase I)	110	13,100	$27
2004 - 2006	190	16,200	$43
2004 - 2008	220	13,200	$37
2008 - 2010	440	10,000	$30
2010 - 2012	210	13,900	$35
2012 - 2014	280	14,580	$25
Beyond 2014	350	4,600	TBD
	1,900	93,000	197

* Includes potential customers near existing facilities. Current demand 5,000 AFY.

4.3 PROGRAM STATUS AND CURRENT ACTIVITIES

In 2003, construction of the Phase I facilities was initiated. To date five of the Phase I projects have been completed and one remains under construction. All of the Phase I facilities will be completed by 2005. Major demands served by the Phase I facilities include: Reliant Energy; Inland Paper; and the Banana, Hickory, RP-3, Declez and Turner Recharge Basins.

Staff have begun the design phase for the Phase II facilities including an implementation plan and preliminary design report for the entire regional recycled water distribution system. The preliminary design will refine pipeline sizes and alignments, identify sites for reservoirs and pump stations and coordinate with each city on traffic, utilities and street paving schedules. A portion of the design of Phase II will be complete in FY 2005/2006 with construction complete in FY 2006/2007. With the availability of additional funding from DWR as described below staff has also initiated design on the first projects of the Phase III facilities.

4.3.1 FUNDING:

Implementation of the Regional Recycled Water Program has been planned and scheduled with the use of state and federal funds to minimize use of regional capital funds. The following funding goals have been identified:

Capital

- Regional Capital Funds 15 – 25%
- State Grants (SWRCB, DWR) 25%
- Federal Grants (USBR) 25%
- SWRCB Loans 25 – 35%

Operations/Loan Repayment

- MWD LPP $2,000,000
- Future MWD LRP $1,800,000

Funding Status –

SWRCB: To date IEUA has received funding contracts from the SWRCB for $5 million in grant funds (SWRCB caps grants at $5 million) and up to $22 million in SRF loans for Phase I. The amount of SRF loan funds will depend on SWRCB staff review of eligibility. Based on their review of the first four Phase I projects IEUA anticipates receiving $15.1 million in SRF loan funds and the full $5 million in grant funds.

In September 2003 IEUA submitted a Financial Assistance Application to SWRCB for Phase II. IEUA has requested $5 million in grant funds and up to $33 million in SRF loans for the Phase II projects. SWRCB review of the application will occur concurrent with the design of the projects.

Federal Funding (USBR): IEUA is also working with our congressional representatives to obtain federal grant funds through the U.S. Bureau of Reclamation. The grant funds will likely be limited to 25 % of the project costs, but can be matched with state and local funding. These federal grant funds will be available at the beginning of the next federal budget in October 2005.

DWR: In 2003 IEUA and Chino Basin Watermaster submitted an application to the Department of Water Resources for Proposition 50 grant funds for: conjunctive use, recharge improvements and recycled water facilities. A total of $15 million are anticipated for these programs, $9million for recycled water facilities. These funds will be used for the Edison Avenue Pipeline and the extension of the Wineville Avenue Pipeline, the first of the Phase III projects. The Edison Avenue Pipeline will interconnect RP-1 with the Carbon Canyon Recycled Water System and serve a significant agricultural demand in the near term and landscape irrigation demand as the area develops. The extension of the Wineville Avenue Pipeline will provide recycled water to industrial users in Ontario and Fontana including several commercial laundries.

MWD: IEUA has an existing Local Projects Program (LPP) agreement with MWD for a $154/AF rebate for recycled water delivered up to 13,500 AFY (excluding recharge deliveries). The original agreement, executed in 1996, was limited to deliveries from the Carbon Canyon Recycled Water System. In 2003 the agreement was amended to include the Regional Recycled Water Program. This agreement will provide over $2 million in annual revenue to the program. MWD has indicated that there will be future opportunities to participate in the Local Resources Program for additional recycled water facilities. These funds will enable IEUA to maintain an attractive rate for recycled water deliveries and help fund the debt service for the SRF loans thereby reducing the regional capital contribution for debt service.

4.3.2 PERMITTING

Several regulatory and environmental permits and approvals are required to implement the Regional Recycled Water Program and deliver recycled water. IEUA has made significant progress and has

completed many of the regulatory requirements. The following are the regulatory requirements and the current status:

- CEQA – IEUA certified a Programmatic EIR in June 2002 which included IEUA's Wastewater Master Plan, Organics Management Business Plan and the Regional Recycled Water Program. Supplements to the Programmatic EIR are prepared, when necessary, as specific project elements are better defined during each project design,

- Chino Basin Watermaster Article X approval for groundwater recharge is required under Watermasters rules and regulations. IEUA obtained Watemasters approval for the recharge of up to 33,000 AFY in 2002,

- Basin Plan Amendment – In order to recharge recycled water in the Chino Groundwater Basin IEUA and Watermaster prepared a Maximum Benefit Concept Proposal to the Santa Ana Regional Water Quality Control Board for the basin plan amendment. The proposal was approved by the RWQCB and incorporated into the basin plan amendment in February 2004. The State Water Resources Control Board approved the basin plan amendment in September 2004. The incorporation of "Maximum Benefit" into a basin plan is unprecedented in the state,

- RWQCB Waste Discharge Requirements and NPDES permit for direct reuse – All of IEUA's Water Recycling Plants have existing permits from the RWQCB for recycled water deliveries for direct reuse customers, i.e. irrigation, industrial, recreational impoundments. On a quarterly basis IEUA reports new customers connected to the recycled water system and recycled water use for each customer,

- DHS Title 22 Engineering Report – In order to assure that recycled water is not "cross-connected" to any potable water system the California Department of Health Services requires an engineering report which identifies the potable and non-potable plumbing systems for each recycled water customer,

- DHS Title 22 Engineering Report for Groundwater Recharge - Prior to recharge of recycled water an engineering report is required. The report is reviewed by DHS and a public hearing is required to solicit comments. IEUA prepared and submitted the Title 22 Engineering report for the seven recharge basins served by the Phase I facilities. A public hearing was held in December 2003 and several supportive letters and comments were provided. DHS with IEUA's assistance has prepared their findings which are submitted to the RWQCB for incorporation into a permit for recycled water recharge, and

- RWQCB Permit for Recycled Water Recharge - The Santa Ana Regional Water Quality Control Board approved the permit for recycled water recharge in April 2005.

- **Summary of Permitting Status**

• CEQA	Certified 2002
• CBWB Article X	Approved 2002
• SARWQCB Basin Plan Amendment	Approved 2004
• SARWQCB Discharge Permit	Issued for all plants

- DHS customer retrofits — Approved for connected customers
- DHS/RWQCB recharge approval
  - Ely Basin 2,300 AFY — Approved 1998
  - Phase I Recharge 7,700 AFY — April 2005
  - Phase II Recharge 17,300 AFY — December 2005

4.3.3 CUSTOMER DEVELOPMENT

As described above there are over 1,000 potential recycled water customers which can be served by the regional and local recycled water facilities. IEUA is working with the staffs of the local agencies to connect new customers to recycled water. Priority is given to the larger customers, typically over 25 AFY, which can be served immediately or in the near future. Currently there are 12 significant customers in Chino, Chino Hills, Ontario and CVWD which agency and IEUA staff are working with. In some cases a significant effort is required in order to get a customer connected to recycled water, particularly industrial customers and golf courses. These customers initially have concerns related to water quality and impacts on their systems, retrofit costs and the cost of the recycled water.

In order to effectively communicate with recycled water customers and provide a consistent message staff is preparing an updated recycled water marketing packet with the following information:

- Background on recycled water use Nationally and in California
- Overview of IEUA and Regional Recycled Water Program
- Summary of recycled water quality
- Comparison of potable and recycled water rates (specific to each agency)
- Technical assistance available (DHS approval, water quality concerns)
- Financing of on-site retrofit (up to ten years with interest)
- Benefits of using recycled water
  - Drought proof the region (improves reliability of potable supply)
  - Recycled water is not subject to mandatory rationing during drought
  - Recycled water provides regional environmental benefits
  - Cost savings
- Contacts with regional agency and IEUA

In addition to addressing the customers concerns about recycled water use IEUA with the regional agency is preparing the Title 22 engineering reports for each site and coordinates the approval with DHS. Most of these reports have been prepared by staff, however, with the number of new customers and the more complicated industrial sites staff resources will be exceeded. Staff is preparing a request for proposals for consultant services to prepare the Title 22 engineering reports and to assist marketing recycled water to the potential customers. Staff anticipates that up to three firms will be selected, based on qualifications, in order to meet the need for customer development.

4.3.4 REGIONAL RECYCLED WATER PROGRAM SUMMARY

Recent Completed Activities:

- Program Planning — Feasibility Study 2002
- Environmental Documentation — PEIR 2002
- Phase I Funding — SWRCB 2003

- MWD LPP Rebate Agreement — Amended 2003
- New Customer Connections — 12 in 2004
- DHS Recharge Permit — Public Hearing 2003
- RWQCB Basin Plan Amendment — Approved February 2004
- Customer Technical Assistance Contracts — July 2004
- Phase II Design Contract — June 2004
- DWR $9 million Grant — September 2004
- Phase I Design Complete — September 2004

Current/ Near Term Status as of June 2004:

- Phase I Construction — 70% Complete
- Phase II Funding
  - SWRCB Grant & Loan — SWRCB Review
  - USBR Grant — Congressional Process
- Customer Marketing Package — April 2005
- DHS and RWQCB Recharge Permit (Phase I) — January 2005
- DHS and RWQCB Recharge Permit (Phase II) — December 2005
- New Customer Connections (5 totaling 2900 AFY) — June 2005

4.4 CURRENT TYCIP

The Recycled Water Capital Improvement (WC) Fund tracks the revenues and expenses associated with the development of the Agency's Recycled Water Program. Exhibit IX indicates that the total remaining ten-year budget for Recycled Water Capital Improvement Program projects ("Work in Progress") is $107 million for work planned in FY 2005/2006 through FY 2014/2015. As summarized in Table 4-3, the current Ten-Year Program includes 12 recycled water pipeline projects (5 more have been completed). The budget also includes $5.5 million for land for recycled water projects and $1.7 million for other costs, such as Program Administration/Planning and Technical Assistance for Marketing. The construction program is phased so that the most cost-effective projects can be brought on-line first.

Table 4-2: Recycled Water (WC) Capital Improvement Program-Major Projects

Project	*Ten-Year Cost (in Million Dollars)*
Recycled Water Pipeline Projects	$96.8
Land for Phase II Recycled Water Projects	$5.5
Total—Major WC Projects	***$102.3***
Total—All WC Projects	***$108.0***

Jurupa Basin will be used as a storage facility; the stored water will be pumped to the RP-3 site and to the Declez Basin via RP-3.

Facilities improvements installed in the initial project consist mainly of rubber dams, new or modified basin inlet and outlet structures, earthwork to improve percolation, pump stations and conveyance facilities, and turnouts from either IEUA's Regional Recycled Water Distribution System or MWD's Foothill Feeder. Implementation of the Recharge Master Plan is being coordinated with implementation of the IEUA Regional Recycled Water Feasibility Study described in Chapter 4. The phased construction of recycled water pumping and conveyance systems will coincide with the improvements to recharge basins necessary to recharge recycled water along with stormwater and imported water.

The CBFIP work has been performed as seven separate construction/bid packages. Table 5-1 shows a description of each bid package, construction cost estimate, and the status/amount of budget spent through January 2005. Work on first three bid packages is complete and all remaining bid packages should be completed by July 1, 2005.

Additional recharge facilities may be developed in the future and land will be acquired as opportunities arise for recharge basins. The most likely addition in the next ten years is the phased development of the Etiwanda Creek/Etiwanda Conservation Basins Project in the unincorporated area of San Bernardino County on the east side of Etiwanda Avenue near San Bernardino Road. Also important to groundwater replenishment will be the aggressive implementation of stormwater Best Management Practices (BMPs) in new land developments.

Table 5-1: Chino Basin Facilities Improvement Project Bid Packages

Bid Package No.	*Description*	*Construction Cost Estimate*	*Status*
1	Recharge basin improvements at six sites--Banana Basin, College Heights Basin, Lower Day Basin, RP-3 Basins, Turner No. 1 Basin, and Turner Basins No. 2, 3, & 4	$8,250,000	Completed
2	Recharge basin improvements at three sites-- Declez Basin, Ely Basins No. 1, 2, & 3, and 8th Street Basins; four rubber dams—College Heights, Lower Day Basin, RP-3 Basins, and Turner Basin No. 1; and three drop inlet structures—Brooks Basin, Turner Basins No. 2, 3, & 4, and Victoria Basin; plus a fourth drop inlet has been added at Victoria Basin.	$7,300,000	Completed
3	Construction of 11,000-foot pipeline in Jurupa Avenue to convey water from the Jurupa Basin to the RP-3 Basins.	$3,200,000	Completed
4	Construction of Jurupa Basin Pump Station and short sections of pipeline and canal necessary to convey water to pump station. SBCFCD has committed to construct a section of the San Sevaine concrete channel with a drop inlet and pipeline to deliver water to the pump station, including storm water, imported water, and recycled water that will be pumped to the RP-3 Basins and the Declez Basin.	$2,300,000	Near Completion
5	Installation of SCADA Control and Monitoring System with radio controls to remotely monitor and govern water levels in all the basins and control the drop inlets and rubber dams. Create four remote monitoring sites.	$3,900,000	$3,483,750 spent through January 2005
6	Redevelopment of two existing MWD Turnouts on the Foothill Feeder line and a new connection on the Etiwanda Intertie.	$1,820,000	Near Completion
7	Construction of the RP-3 Mitigation site; Hickory Basin manifold, pump station, and berms; Upland Basin & pipeline; completion of Victoria Basin.	$3,800,000	$1,688,850 spent through January 2005

Table 5-2 shows that Phase I programs will have a total potential recharge capacity of almost 36,000 AF. Additional program basins that have been constructed have a recharge potential of almost 80,000 AF. Future basin recharge potential (20,000 AF) will ultimately result in a total combined potential recharge capacity of about 134,000 AF. Phase I in this case refers to Phase I of the recycled water recharge facilities.

Table 5-2 Chino Basin Potential Source Water Recharge Capacities

All Values in Acre-Feet

Phase 1 Program Basins					
Banana Basin	800	3,400	1,000	5,200	100
Declez Basin	300	1,600	500	2,400	100
Hickory Basin	900	4,200	1,300	6,400	80
Jurupa Basin (Note 1)	0	0	0	0	90
RP-3 Basins	1,700	7,900	2,400	12,000	100
Turner Basin No. 1	900	1,300	500	2,700	100
Turner Basins Nos. 2, 3 & 4	1,800	3,800	1,400	7,000	100
Subtotal Phase 1 Basins:	6,400	22,200	7,100	35,700	N/A
Additional Program Basins					
7th & 8th Street Basins	1,600	2,600	1,100	5,300	100
Brooks Street Basin	1,900	0	5,000	6,900	100
College Heights Basins	100	7,900	0	8,000	98
Ely Basins	1,000	0	2,300	3,300	100
Lower Day Basin	500	3,700	1,000	5,200	100
Montclair Basins Nos. 1-4	2,100	9,900	0	12,000	----
San Sevine Nos. 1 through 3	1,700	7,700	2,300	11,700	----
San Sevine No. 4 & No. 5	500	6,800	1,800	9,100	----
Upland Basin	1,000	8,700	0	9,700	50
Victoria Basin	1,000	4,700	1,400	7,100	70
Subtotal Additional Program Basins:	11,400	52,000	14,900	78,300	N/A
Subtotal Constructed Basins:	17,800	74,200	22,000	114,000	
Future Basins (Note 2)					
Etiwanda Conservation Ponds (Note 2)	1,100	5,300	1,600	8,000	----
Etiwanda Spreading Basins (Note 2)	*1,700*	*7,900*	*2,400*	*12,000*	----
Subtotal Future Basins:	*2,800*	*13,200*	*4,000*	*20,000*	----
Total All Program Basins:	20,600	87,400	26,000	134,000	N/A

Source: IEUA Facilities Management Plans Program EIR, Table 3-12. The recharge basin recharge capacities presented in the table represent the maximum values presented in Table 3-12.

Note 1: The Jurupa Basin, through geotechnical testing, is believed to have minimal percolation benefits. As such, the Jurupa Basin will be used as a holding basin for water sources to be pumped to the RP-3 Basins for groundwater recharge.

Note 2: Etiwanda Conservation Ponds and Etiwanda Spreading Basins were not developed because of Right of Way Issues. Values shown are estimates of recharge and are included in "Total All Program Basins" at the end of the table.

IEUA has identified eight existing recharge basins (seven for recharge and one for storage) which comprise Phase I of the program. Appendix C at the end of this report contains a Fact Sheet, which explains Phase I in detail. Recently, IEUA completed California Department of Health Service's requirements for using recycled water to recharge the Chino Groundwater Basin (Phase I Basins) and was granted a recharge permit by the California Regional Water Quality Control Board (Santa Ana Region) in April of 2005.

5.4 CURRENT TYCIP

As shown in Table 5-3 below, the main project in the Recharge Water (RW) Capital Improvement Program is the Chino Basin Recharge Facilities Improvement Project described above. It is composed of several sub-projects—one for each recharge site. The ten-year RW Program also includes a project to construct lysimeters and groundwater monitoring wells to evaluate the impacts of the recharge program on the groundwater basin. In addition, there is a permitting requirement to complete the Title 22 Engineering Reports required by the Department of Health Services for the remaining recharge basins that will be receiving phase II recycled water.

Table 5-3: Recharge Water (RW) Capital Improvement Program—Major Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
Groundwater Monitoring Wells	Fiscal Year 2004/2005	$3.4
MWD Turnout to 8th St. Basin	Fiscal Year 2007/2008	$4.0
SCADA System Expansion	Fiscal Year 2006/2007	$2.2
Chino Basin Recharge Facilities Improvements	Fiscal Year 2007/2008	$1.5
Total—Major RW Projects		***$11.1***
Total—All RW Projects		***$12.0***

Additional projects are needed to enhance the Groundwater Recharge Program. Funding has been sought and obtained from DWR. A total grant of $5 million will provide partial financing of the following project components to expand and enhance existing basins: They include:

8. New pipelines for delivery of imported water and a concrete lined V-ditch at RP-3 to convey the three sources of water to the Declez Basin via the RP-3 trap channel,
9. Improvements to the new SCADA system which include, adding in remote basins that are scheduled to be improved for groundwater recharge,
10. Internal berm spillways to retain greater quantities of storm water within the various flow-through basins,
11. A new MWD turnout on the Rialto Pipeline will be constructed to deliver imported water to two series of basins on the West Cucamonga Channel,
12. Nine new sets of lysimeters will be constructed to immediately monitor the recycled water quality with regards to the soil/water treatment in the basins; and nine new groundwater monitoring wells to track the movement of recycled water down gradient from the respective basins,

13. A total of five new recycled water turnouts will be added to the IEUA Regional Recycled Water Distribution System,
14. Singular projects such as:
    a. Backflow prevention devices on inflow pipelines,
    b. A new sluice gate at San Sevaine Basin No. 5.

6.0 NON-RECLAIMABLE WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM

6.1 BACKGROUND

The IEUA owns and operates a non-reclaimable wastewater (NRW) system that provides for export of high-salinity and industrial wastewater generated within the Agency's boundaries to the Pacific Ocean. The wastewater discharged to the NRW system consists mainly of industrial and groundwater treatment brines, but also includes some solids processing side streams from the IEUA's water recycling treatment facilities and some domestic waste from un-sewered areas. The NRW system is physically separated from the Regional Domestic Wastewater System and provides a means for segregating poor quality, saline wastewater and exporting it from the service area. This improves the quality of the recycled water for local use and helps ensure that IEUA can comply with the TDS and total nitrogen limits in the Regional Board permits.

The NRW system exports approximately 35,550 tons per year of salt to the ocean, as summarized below:

FY 2004/2005	*MGD*	*mg/L*	*Tons/Year*
North NRW System	3.85	2,755	16,150
South NRW System	0.7	5,970	6,360
Desalter I	1.85	4,630	13,040
Total Salt Export	***6.4***	***3,650***	***35,550***

The NRW collection system is comprised of a north and a south system. The north system, which serves approximately 40 industries, conveys wastewater to adjacent interceptor sewer lines owned and operated by the County Sanitation Districts of Los Angeles County (CSDLAC). From there, it is conveyed to CSDLAC's treatment facility in Carson, where it is treated and discharged to the ocean. The south NRW system, which serves approximately 10 industries, conveys wastewater to the Santa Ana Regional Interceptor (SARI) pipeline, owned by the Santa Ana Watershed Project Authority (SAWPA), and from

there it is carried to the Orange County Sanitation Districts (OCSD) facility in Fountain Valley for treatment and ocean discharge.

Export of saline and industrial wastewater from the local area in this manner protects the quality of the Agency's recycled water and is a key element of the Chino Basin Watermaster's Optimum Basin Management Plan (OBMP) strategy. Diverting saline wastes to the NRW system instead of collecting them in the regional domestic wastewater system has reduced the total dissolved solids (TDS) levels in the Agency's recycled water by approximately 390 mg/l. It is estimated that diverting most of the existing industrial users with TDS concentrations above 500 mg/l to the NRW system could lower the TDS level of the recycled water by another 8 to 11 mg/l. Future high-TDS industrial users and brine from groundwater desalters should also be diverted to the NRW System in order to avoid raising the TDS level of the Agency's recycled water.

6.2 SALINITY MANAGEMENT ACTION PLAN AND NRW ACTION PLAN

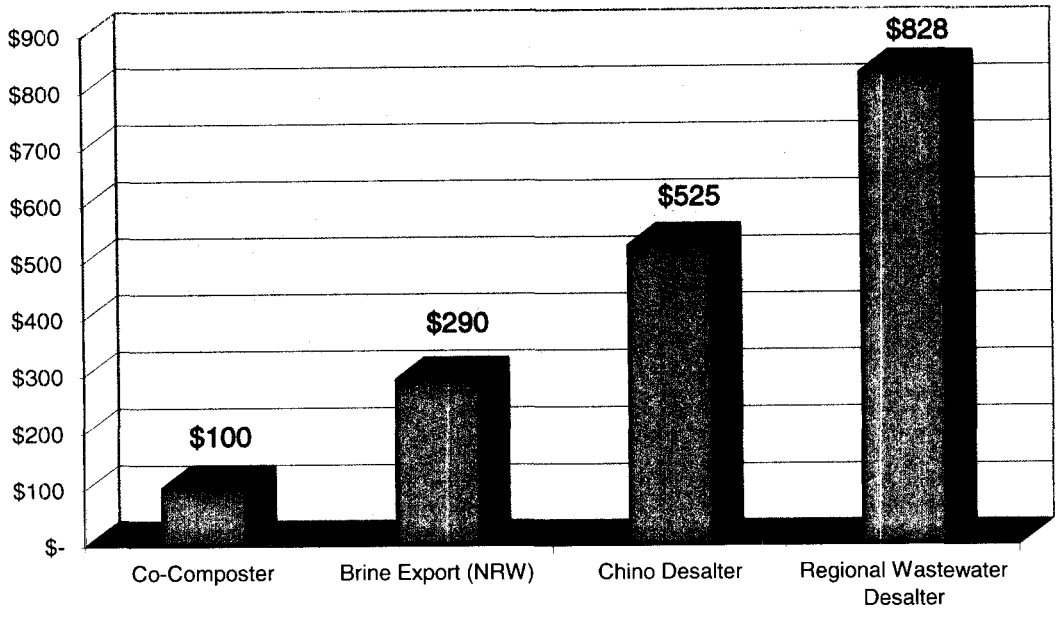
The IEUA developed a Salinity Management Action Plan in 2002 in cooperation with the Regional Technical and Policy Committees. Some of the strategies that were identified to reduce the salinity of IEUA's recycled water supplies included:

- Maximizing the use of the IEUA's Non-Reclaimable Wastewater (NRW) System,
- Developing a program to reduce the salt impacts of water softeners, and
- Reducing salinity contributions from IEUA treatment plant operations.

A study by Parsons Engineering Science (2000) evaluated the long-term issues and future funding needs for operating and maintaining the NRW system in the most cost-effective manner. Parsons suggested that the most cost-effective strategies for maximizing the use of the NRW system were: (1) diverting more high-salinity wastewater flow from the Regional system to the NRW system, thereby reducing the need for expansion of the Regional system; and (2) melding the NRW user rates and charges with the Regional system, "Regionalization". The study confirmed that utilization of the NRW system minimizes the Agency's treatment costs for salt, as illustrated in Figure 6-1.

On March 19, 2003, the IEUA Board of Directors held a workshop to review existing policies for utilization of the NRW system and to begin developing an NRW Action Plan. The purpose of the Action Plan was to implement strategies to reduce TDS at the IEUA regional water recycling plants and to encourage salt export through optimum utilization of the NRW system consistent with the OBMP and the Maximum Benefit Basin Plan. A second workshop was held on November 19, 2003 to review and refine the action plan. The proposed action plan was developed through extensive coordination and discussion with the IEUA's Regional Technical and Policy Committees, the Chino Basin Watermaster, and the Regional Board.

FIGURE 6-1
Relative Costs of Salt Removal From Chino Basin
(Dollars per Ton of Salt Removed)



The current NRW Action Plan includes several measures designed to more fully utilize the capacity of the NRW system to benefit the IEUA service area:

- Water Softener Strategy—Developed a comprehensive program of incentives, public education materials and model ordinances for new and existing residential and commercial water softeners for FY 2004/2005. The budget for the program is $250,000 per year using the Wastewater Collection, Treatment, and Disposal (RC) Fund. This project has already been initiated and it is progressing well. (Status: In progress),

- Buyback Agreement with CSDLAC—IEUA relinquished 3 MGD of owned capacity in the NRW to LACSD in April 2004. This action will lower annual payments to CSDLAC by approximately 23% or $350,000 annually. The savings will be passed on to NRW customers through more favorable rates and charges. This transaction will also encourage the use of the NRW system by new and existing industries to discharge their saline effluent and increase the salt export. (Status: Completed),

- Implementation of the Maximum Benefit Basin Plan—Ensure compliance with the Maximum Benefit requirements and with the Memorandum of Understanding with the Orange County Water District and Regional Board. Critical near-term action items are: (1) develop monitoring work plan with Watermaster; (2) evaluate regional wastewater pretreatment ordinance technical TDS

increment; and (3) annual reports on salt balance (Watermaster responsibility). (Status: In progress),

- MWD Dry Year Yield Conjunctive Use Ion Exchange Projects—Construct connections to the NRW system (IEUA implementation responsibility) in conjunction with Upland, CVWD, Monte Vista Water District, Chino, Ontario, and Chino Hills for several proposed ion exchange projects. These projects will improve the water quality in the groundwater basin and improve its yield, especially during dry years, through participation in a conjunctive use program with MWD. (Status: In progress),

- NRW "Pass Through" Rates- IEUA staff developed pass through rates and budget impact analysis for existing industrial customers. The goal was to "pass through" charges from LACSD and SAWPA to industrial customers for using their non-reclaimable waste systems, with addition of only minimal charges to cover the IEUA administrative expenses. This action will encourage exporting more salts from the Chino Basin by connecting more industries to discharge their brine wastes to the system. The contract with Niagara Bottling Company was completed as a "case study" of this effort. The "Pass Through" rates will provide economic incentives for existing regional industries to divert their discharge to the NRW system, if their effluent TDS concentration is above 500 mg/L. This action is a key to the Chino Basin OBMP strategy. (Status: Completed),

- Chino Desalter "SARI" Capacity Alternatives—In April 2004, IEUA made an agreement with Chino Desalter Authority (CDA) to sell IEUA owned SARI capacity to the CDA to handle the brine waste from the Chino I Desalter Expansion and the future Chino II Desalter. The revenue from this sale transaction was $14.25 million. Approximately $4.73 million from the sale is expected to be deposited into IEUA's Regional Capital Improvement Fund (RC Fund) and $9.51 million is expected to be deposited into the NRW Capital Improvement Fund (NC Fund). (Status: Completed), and

- Leasing of Temporary SARI Capacity to Lewis Operating Company-IEUA had made an agreement with Lewis Operating Company (LOC) to lease a portion of the SARI capacity for their Chino Preserve Expansion. IEUA has made this lease available to LOC until City of Chino has completed the design and construction of the Pine Ave. interceptor sewer. Once the construction of the Pine Ave. interceptor is completed the California Institute for Women (CIW) stops discharging to the SARI and starts discharging to the Pine Ave. interceptor, which will discharge to the IEUA's Regional Plant No. 5. (Status: Completed).

6.3 *ECONOMIC BENEFITS OF THE NRW ACTION PLAN*

IEUA expects to achieve substantial avoided costs as well as benefits for the service area by implementation of the NRW Action Plan. The IEUA will avoid the cost of treating non-reclaimable industrial wastewater at IEUA's water recycling plants, which would require additional secondary and tertiary treatment capacity to handle the flow plus desalination facilities to remove TDS. A resulting economic benefit to IEUA is the ability to use 20,000 to 25,000 acre-feet per year of recycled water for groundwater recharge instead of more expensive imported water. The avoided costs achievable by maximum utilization of the NRW system are summarized as follows:

Action Avoided	*Estimated Future Cost Avoided*
Construction & Operation of Desalination Facilities at Regional Plants	$250 million
Construction of Secondary and Tertiary Treatment Facilities at Regional Plants for 15 mgd ($8 per gpd including solids handling)	$120 million
Purchase Imported Water for Recharge to Replace 20,000 AFY Recycled Water	$6 million/year
Total Net Economic Benefits Over Ten Years	***$430 million***

There will also be additional revenues from the sale of unused capacity, either: (1) as part of the CSDLAC buyback agreement; (2) for the Chino Desalters; (3) for local ion exchange groundwater treatment projects; or (4) for local development in unsewered areas. The cost savings, when deposited into the Regional Wastewater Fund account, will offset the cost of "regionalizing" the NRW system and, therefore, avoid any monthly sewer rate impacts.

6.4 CURRENT TYCIP

The major projects in the NRW system Capital Improvement (NC) Program are listed in the Table 6-1. IEUA is obligated to make annual payments to CSDLAC to cover its proportional share of the capital repair, relocation, reconstruction and rehabilitation (4R) costs of CSDLAC's NRW system The ten-year budget includes a total of $18.8 million for 4R capital replacement costs. The projected 4R charges for the next ten years have been reduced by $5.6 million, or 23 percent because of relinquishing of 3 MGD of unused NRW system capacity back to CSDLAC.

IEUA has initiated a new project to video tape the entire 67 miles of the NRW system to evaluate the condition of the pipeline. Multiple year capital improvement project has been established to rehabilitate the pipelines.

In addition, the TYCIP includes a capital project to reduce struvite scale buildup in the 6-inch NRW pipeline between RP-1 and Philadelphia Avenue. The struvite mitigation program will prevent pipeline clogging and avoid maintenance costs for manually chipping and vacuuming the pipelines scaling problems. The struvite mitigation program is scheduled to be developed and implemented between FY 2004/2005 and FY 2007/2008.

Table 6-1: NRW System Capital Improvement Program—Major Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
CSDLAC Capital Replacement Costs	Each Year	$18.8*
NRW System Capital Replacement and Refurbishment	Fiscal Year 2006/2016	2.0
Total—Major NRW System Projects		***20.8***
Total—All NRW System Projects		***23.0***

* Includes $5.6 million savings from relinquishing of 3 MGD unused capacity back to CSDLAC.

A new project was added to the TYCIP 04/05 fiscal year to construct pipeline connections from wellhead ion exchange facilities in the cities of Chino Hills, Montclair, Rancho Cucamonga, Upland, and Ontario to the NRW system. This project also includes a lateral connection for Niagara Bottling to the NRW system. The ion exchange facility connection project is an element of the IEUA's NRW Action Plan. It will facilitate the Chino Basin Dry Year Yield (DYY) Program, which is part of the Chino Basin Watermaster's Optimum Basin Management Plan (OBMP). The OBMP is being implemented to provide additional water supplies for the region and improve groundwater quality. The DYY Program is the first in a series of aquifer storage and recovery programs that will be implemented to use the estimated 500,000 acre-feet of Basin safe storage capacity. The DYY Program will develop up to 100,000 acre-feet of storage. The facilities required to implement the DYY Program include several ion exchange facilities that will be financed by the Metropolitan Water District of Southern California (MWD). The connection project will allow the salt from the ion exchange plants to be exported from Chino Basin.

7.0 ORGANICS MANAGEMENT/ CO-COMPOSTING CAPITAL IMPROVEMENT PROGRAMS

7.1 BACKGROUND

The IEUA commenced an Organics Management Study in August 2000 to address long-range plans for treating and utilizing biosolids as well as dealing with the problems of dealing with manure and greenwaste generated within its service area. This resulted in the release of a Chino Basin Organics Management Business Plan dated May 31, 2001 and related Organics Management Strategy Technical Memoranda. The Business Plan was developed consistent with the IEUA's mission to protect public health, the groundwater basin, and the environment (e.g., reduce air pollution and improve water quality). The IEUA Board of Directors certified the Programmatic EIR for the Business Plan in June 2002 and adopted the Business Plan together with the Wastewater Facilities Master Plan and Recycled Water Feasibility Study in August 2002.

To the extent it is economically feasible, the IEUA's organics management strategy seeks to protect the Chino Groundwater Basin from infiltration of salts and nitrogen compounds generated on dairies in order to avoid the future cost of removing such contaminants from the groundwater. As a result, the Business Plan is an integral tool to implement the Chino Basin Watermaster's Optimum Basin Management Plan. The Business Plan included the implementation of two key initiatives. The first is a comprehensive renewable energy reliability program, which has resulted in the construction of two dairy manure digestion facilities to generate methane gas and divert salts from the groundwater basin. The second is a local organics recycling program that includes the local communities as partners to divert organic solids from landfill disposal and to be consumers of recycled organic products generated from within the community. Along with the IEUA Co-Composting Facility which opened in 1996 to compost dairy manure with municipal biosolids, the two manure digestion facilities have diverted a significant amount of pollutants: 118,000 tons of total dissolved solids (salt), 239 tons of nitrate-nitrogen, and 4,980 tons of ammonia.

7.2 INLAND EMPIRE REGIONAL COMPOSTING FACILITY

In February 2002, the IEUA, in partnership with the County Sanitation Districts of Los Angeles County (CSDLAC), formalized an agreement implementing the joint goal of development of a sustainable biosolids management project. This Joint Powers Agreement (JPA) outlines the design, construction and operation of a biosolids composting facility, called the Inland Empire Regional Composting Facility (IERCF), to be

located adjacent to the IEUA Regional Water Recycling Facility No. 4, located in Rancho Cucamonga, CA. This new composting facility will replace IEUA's Co-Composting Facility located in Chino, CA. The transition to the IERCF and decommissioning of the existing Co-Composting Facility is scheduled for late 2005/early 2006. While it is anticipated that the majority of biosolids generated at the IEUA's water recycling facilities will be made into compost at the Inland Empire Regional Composting Facility, IEUA will continue evaluating several options that will provide a diverse, yet cost-effective, long-term sustainable biosolids recycling portfolio.

The major project milestones accomplished towards opening the Inland Empire Regional Composting Facility (IERCF) can be summarized as follows:

Chronological Summary of the IERCF Project Milestones

Sept 2002	Preliminary Design was completed. Estimated construction cost up to $35 million Capital and O&M costs estimated $42 per wet ton of biosolids IERCA Board authorized design
June 2003	Estimated construction cost $40 million, not including rolling stock and construction management related costs
July 2003	Obtained Conditional Use Permit from City of Rancho Cucamonga
September 2003	IERCA Board Approved $49,950,000 to Construct the IERCF
February 2004	Completed Design of the IERCF and solicited bids for construction
June 2004	Awarded Construction Contract to Tilden-Coil Construction . Approved amended Construction Budget of $66,569,000
December 2005	Will complete construction and begin start-up.

7.3 CURRENT TYCIP

As indicated in Table 7-1, the major TYCIP project in the Organics Management Program is the IERCF. Half of the design and construction costs for IERCF will be paid by CSDLAC through the Inland Empire Regional Composting Authority. The TYCIP also includes pilot projects associated with the close-out and replacement of the existing Co-composting Facility. Financing for the Organics Management and Co-Composting Programs is discussed in Chapter 8.

Table 7-1: Organics Management Capital Improvement Program—Major Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
Inland Empire Regional Composting Facility	Fiscal Year 2005/2006	$15.7[1]
Total—Major OC/CC Projects		***$15.7***
Total—All OC/CC Projects		***$18.0***

[1]Out of a project budget of $31.3 million. This does not include the other half of project costs which will be funded by the County Sanitation Districts of Los Angeles County, through the Inland Empire Regional Composting Authority.

which is visible is a relatively high level of expenditures in the first two years—over $60 million per year--tapering down to about half that level in the remaining years. In the first three years, significant projects are recommended at most locations—at RP-1, RP-4, RP-5, and in the conveyance system. Notably, the Agency will be working on the RP-1/RP-5 Bypass, several other major interceptor and lift station projects; completing odor control and digester improvement projects at RP-1; beginning work on the RP-4 expansion to 14 mgd; and continuing with the RP-5 Renewable Energy Efficiency Project. In the ensuing two years, the focus of work will be at RP-1, on secondary treatment system improvements. The following two years, the focus will be the RP-5 expansion from 15 to 27 mgd and the expansion of RP-4 from 14 mgd to 21 mgd, including solids handling.

8.2.2 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL PROGRAM FINANCING

To plan, design, and construct the RC program capital projects summarized previously in Chapter 3, it is expected to cost approximately $358 million in the coming ten-year period. In addition to paying for new capital projects, the RC fund has long-term liabilities for bonds payable and interest expenses, as well as administrative and other expenses. In addition, transfers are made to other funds for capital and administrative support and debt service. Financing for the RC program is provided by revenue from several sources including, but not limited to: property taxes, capital capacity reimbursement payments (connection fees), bond issues, grants, proceeds from the sale of property, and interest earned.

The details of the Agency's Ten Year Budget for the RC program are presented in Exhibit VIII at the end of this report. It gives a complete revenue and cost summary, including construction and replacement projects ("work in progress") and transfers between the RC fund and other funds. The major transfers are to the Recycled Water, Recharge Water, Organics Management and Internal Services funds.

On the revenue side, no additional debt service issues (revenue bonds) are planned or needed to finance the TYCIP. Within the RC Program, grants are expected to total $9.5 million for wetlands and energy efficiency projects. The key sources of revenue for the TYCIP are property taxes ($186 million) and supplemental capital contributions ($287 million). Supplemental capital contributions come from calls to Contracting Agencies for Capital Capacity Reimbursement Payments (CCRP), which are derived from connection fees. The expected revenue from Reimbursement Payments depends on the number of new EDUs added to the Regional wastewater system each year. The expected number of EDUs is forecasted based on growth projections. A conservative EDU growth rate of 8,500 per year for the first two years, followed by 5,000 per year for the last two years was assumed for the revenue projections. (Actual growth projections are even higher, as discussed in Chapter 2).

In the past, it has been assumed that the CCRP will be increased at the rate of inflation in construction costs, estimated at an average of 3% per year. Starting in FY 2005/2006, the annual increase in the CCRP is calculated as the ten year average Engineering News Record (ENR) construction cost index for Los Angeles County (ENRLA). The current (FY 2005/2006) Capital Capacity Reimbursement Payment amount is $4,000 per EDU. It was raised from $3,905 per EDU by the IEUA Board of Directors in March of 2005.

Table 8-1: Wastewater Collection, Treatment, and Disposal Program Summary

SERVICE AREA	TEN-YEAR COST ($ IN MILLIONS)
RP-1	
• Secondary Treatment System Modifications/Install Blower #4	28.7
• Upland Interceptor Relief Sewer- Phase II	14.3
•RP-1 Dewatering Facilities Expansion	10.0
• RP-1 Solids, Digester and Gas System Improvements /Cogeneration Facility Expansion	11.4
• RP-1 Modernization/Sec Flow Equalization System	5.4
•RP-1 Tertiary Filter Expansion	3.8
• RP-1 Filtrate Treatment Expansion	3.8
•RP-1 Odor Control-Phase I	3.3
•RP-3/Declez Park	2.0
Total—Major RP-1 Projects	***$82.7***
Total—All RP-1 Projects	***$96.1***
RP-4	
• RP-4 Liquids Expansion to 14 MGD	30.5
• RP-4 Liquid & Solids Expansion to 21 MGD	60.0
• RP-4 Land Acquisition	4.2
• San Bernardino Ave. Pump Station/Force Main	6.1
Total—Major RP-4 Projects	***$100.8***
Total—All RP-4 Projects	***$105.8***
CCWRF	
• Filters and Contact Tank Expansion	7.0
• Aeration System Modification	3.1
• CCWRF Chlorination Facilities	1.3
Total—Major CCWRF Projects	***$11.4***
Total—All CCWRF Projects	***$14.1***
RP-2/RP-5	
• RP-5 Expansion to 27 MGD	66.0
•RP-5 System Facilities Upgrade & Improvement	7.7
• RP-1/RP-5 Bypass (East)	22.5
•RP-5 Sec Flow Equalization System	6.5
• RP-5 Renewable Energy Generation Efficiency	9.0
• RP-5 Warehouse/Maintenance Facility	6.0
•RP - 5/CCW Chlorine Tank Covers	1.3
Complete Mix Digestion Technology	2.6
RP-5 Renewable Energy Project Digester Expansion/Modification	1.6
• Chino Creek Master Plan and Wetland Projects (Grant-Dependent)	3.9
• Chino Creek Park	3.6
•RP-2 Dewater Cake Storage	3.3
• RP-2 Decommissioning	1.8
Total—Major RP-2/RP-5 Projects	***$135.8***
Total—All RP-2/RP-5 Projects	***$142.0***
Total--Major Wastewater Collection, Treatment, and Disposal Projects	***$330.7***
Total--All Wastewater Collection, Treatment, and Disposal Projects	***$356.0***

8.3 OTHER IEUA CAPITAL IMPROVEMENT PROGRAMS

Other IEUA capital improvement programs include the Recycled Water Program (WC Fund), the Recharge Water Program (RW Fund), the Non-Reclaimable Wastewater System Program (NC Fund), and the Organics Management Program (OM Fund). Exhibits VIII through XII present revenue and cost summaries for each capital improvement program, based on the Agency's budget. Table 8-2 lists the major projects for each program in terms of dollars budgeted for the next ten years. In addition, Appendix B presents the complete list of projects with schedules and budgetary cost estimates for the next ten years.

8.3.1 Recycled Water Capital Program

As discussed in Chapter 4, this year's TYCIP recommends $108 million in capital project expenditures for the WC Program over the next ten years. Exhibit IX summarizes the Agency's ten-year budget for the WC Fund. To finance the Recycled Water Program, Phases I–V, approximately 16% of the funding is expected to come from State Water Resources Control Board (SWRCB) grants, 34% from SWRCB loans, 4% from DWR grants, 20% from U.S. Bureau of Reclamation (USBR) grants, and the remaining 25% will be funded by excess revenues from recycled water sales. Recycled water sales are expected to generate approximately $1.5 to $2 million annually for the WC Fund. Any funding shortfalls will be made up by interfund transfers from the RC Fund.

8.3.2 Recharge Water Capital Program

As discussed in Chapter 5, this year's TYCIP recommends $12 million in capital project expenditures for the RW Program over the next ten years. The Recharge Water Capital Improvement Fund (RW Fund) was created in FY 2002/2003 to track the expenses associated with implementation of the Recharge Program. The establishment of this new fund in July of 2002 coincided with the Agency's readiness to begin final design of facilities improvements for the Recharge Program. Exhibit X summarizes the ten-year budget for the RW Fund. The initial project is nearing completion (June 2005), and will be completed slightly under budget.

To finance the RW Program, the Chino Basin Regional Financing Authority issued $20 million of variable rate debt obligations in July of 2002. The Chino Basin Watermaster, through the Recharge Facilities Agreement, is obligated to pay one-half of the debt service. The State of California's Proposition 13 Grant Program is providing $20 million of grant funding for the recharge program. Interfund transfers from the RC Fund cover the recharge program's debt service and provide a minimum operating reserve. Cooperating agencies are providing in-kind services. An additional $10 million is proposed to be expended prior to 2007 to construct a new MWD turnout, SCADA system improvements and monitoring wells. These additions will be partially funded by a $5 million DWR Prop 50 Grant.

8.3.3 Non-Reclaimable Wastewater System Capital Program

The NC Fund records financial transactions associated with facilities necessary to operate the northern and southern NRW systems. Exhibit XI summarizes the Agency's ten-year budget for the NC Fund. This year's TYCIP recommends $23 million in capital project expenditures for the NC Program over the next ten years. The major capital expenditures are the CSDLAC 4R charges and capital projects discussed in Chapter 6.

Table 8-2: Major Capital Projects—Other Programs

	TEN-YEAR COST ($ IN MILLIONS)
WATER RECYCLING PROGRAM	
Recycled Water Pipeline Projects	96.8
Land for Acquisition for RW Projects	5.5
Total--Major Water Recycling Projects	**102.3**
Total - All Water Recycling Projects	**108.0**
GROUNDWATER RECHARGE PROGRAM	
Chino Basin Recharge Facilities Improvements	1.5
MWD Turnout to 8th St. Basin	4.0
Groundwater Monitoring Wells	3.4
SCADA System Expansion	2.2
Total--Major Recharge Projects	**11.1**
Total-All Recharge Projects	**12.0**
NON-RECLAIMABLE WASTEWATER SYSTEM	
CSDLAC Capital Replacement Costs – 4Rs	18.8
NRW system Refurbishment	2.0
Total--Major NRW system Projects	**20.8**
Total-All NRW system Projects	**23.0**
ORGANICS MANAGEMENT	
Inland Empire Regional Composting Facility[1]	15.7
Total--Major Organics Management Projects	**15.7**
Total-All Organics Management Projects	**21.0**
[1]*The other half of project costs will be funded by the County Sanitation Districts of Los Angeles County, through the Inland Empire Regional Composting Authority.*	

The major revenue sources for the NC Fund are: (1) monthly user charges to holders of capacity rights in the system; and (2) sale of new capacity rights.

8.3.4 Organics Management Capital Programs

The Organics Management (OM Fund) record financial transactions associated with facilities necessary to implement and operate the Organics Management Programs. In addition to paying for new capital projects, the OM Fund incurs expenses for debt service from previous bond issues and both funds incur administrative and operational expenses. Exhibit XII summarizes the Agency's ten-year budget for the OM Fund. In the Organics Management Program, the major capital expenditures are for the Inland Empire Regional Composting Facility (IERCF) described in Chapter 7. To finance the IERCF, IEUA issued $12.9-million in bonds in FY 2002/2003. In addition, interfund transfers from the RC Fund to the OM Fund will provide

approximately $14 million for capital contributions and debt service. Another major revenue source for the OM Fund will be payments from the sale of the existing IEUA Co-Composting site property.

8.4 AB-1600 NEXUS TEST

Each year, IEUA assists its Contracting Agencies to demonstrate compliance with AB1600 (the "Mitigation Fee Act"), which requires that connection fees must be reasonably related to the service provided. As it relates to Capital Capacity Reimbursement Payments, this is accomplished by summarizing the projected needs for the collected funds and the duration that the funds will be held. Table 8-3 summarizes IEUA's projected need for Capital Capacity Reimbursement Payment revenues for the Regional Capital Improvement (RC) fund.

As indicated in Table 8-3, in the column labeled, "Balance of Funds Collected for 5 or More Years," post-1989 reimbursement payment receipts do not stay on deposit for more than five years during the ten-year program. If funds collected after January 1, 1989 are segregated and used to meet Regional Program needs first, post-1989 funds will be expended within the required five years. Therefore, the statutory requirements of AB-1600 are satisfied.

Table 8-3: Projected Status of Reimbursement Payment Receipts (in $1000s)

Fiscal Year	*Annual Contracting Agency Receipts (Reimbursement Fees)*	*IEUA Expenditure of Funds (Capital Calls)*	*Balance of Funds Collected*	*Balance of Funds Collected for 5 or More Years*
1989-90	11,331	33,257	0	0
1990-91	4,844	13,560	0	0
1991-92	6,074	9,750	0	0
1992-93	4,337	0	4,337	0
1993-94	3,770	0	8,107	0
1994-95	4,906	0	13,013	0
1995-96	6,801	4,600	15,214	0
1996-97	11,185	5,125	21,274	0
1997-98	14,213	24,519	10,968	0
1998-99	12	14,637	0	0
1999-00	11,094	3,190	7,904	0
2000-01	17,216	22,400	2,720	0
2001-02	20,135	48,010	0	0
2002-03	23,999	0	23,999	0
2003-04	28,451	0	52,450	0
2004-05	30,459	51,000	31,909	0
2005-06	34,000	62,826	3,083	0
2006-07	34,608	47,729	0	0
2007-08	29,705	26,782	2,923	0
2008-09	28,412	28,700	2,635	0
2009-10	27,012	25,734	3,913	0
2010-11	27,823	37,399	0	0
2011-12	27,224	23,538	3,686	0
2012-13	27,057	24,013	6,730	0
2013-14	25,335	16,907	15,158	0
2014-15	26,095	13,618	27,635	0

9.0 EMERGING PLANNING ISSUES

In 2002, IEUA staff, in partnership with the Regional Technical Committee, prepared a very comprehensive master plan of the regional wastewater facilities. In 2005/2006, IEUA staff will be closely coordinating an implementation strategy for the Master Plan with the regional committees to ensure that all the key technical issues are addressed.

During the process of preparing the master plan in 2001 and 2002, the key issues were:

- Recycled water,
- Renewable energy generation,
- Organics management,
- Phased treatment plant expansions,
- Chino Basin Watermaster Optimum Basin Management Plan (OBMP), and
- Anticipated Regional Board TIN/TDS requirements that led to the Maximum Benefit Basin Plan.

The 2002 Wastewater Facilities Master Plan (WFMP) recognized the interrelationship of the many programs IEUA is involved in, and also the interrelationship of the facilities that serve these programs. The continued success of the IEUA service area is heavily dependent on a high- quality, dependable water supply which in turn is dependent on sound conservation and waste management practices. A major tenet of the Chino Basin Resource Planning Agencies (IEUA, Chino Basin Watermaster, Chino Basin Water Conservation District, Chino Basin Desalter Authority, SAWPA, MWD) is to emphasize water recycling and to minimize the importation of MWD water supplies to the maximum extent possible. This philosophy resulted in a 2002 WFMP that incorporated a water recycling element for direct delivery and conservation of recycled water through groundwater recharge. It included an Organics Management Strategy for recycling the solids by-products of wastewater treatment and an Energy Management Strategy that emphasized self generation with recycled waste management by-products.

The primary objective of the Master Plan Implementation Strategy will be to improve utilization of existing facilities while expanding these facilities to meet the rapid growth in the IEUA service area. The implementation plan will focus on the development of program areas such as RP-1 to coordinate and optimize the capital improvements in that general area. Other program areas include the remaining treatment facilities, recycled water facilities, energy facilities, etc.

The resources necessary to continue the development and integration of new programs and facilities will continue to be from responsible fiscal management. To this end, on-going evaluations as well as evaluations in the Master Plan Implementation Strategy will prioritize and make the best use of future capital dollars by evaluating projects such as:

- **NRW System** -- How can the NRWS be fully utilized to improve water quality and defer expansions at RP-4 and RP-5?,
- **RP-4 Solids** -- When should organic solids be processed at RP-4 to minimize cost and increase energy production?,
- **Food Waste** – Do the existing anaerobic digester waste treatment systems have sufficient capacity to accept new waste streams (food waste) to enhance renewable energy production?,
- **CMOM** – How will implementation of the program for Collection System Maintenance Operation and Management (CMOM) and asset management affect future facility design and planning?,
- **System Automation** – How can the facilities in the system be automated to reduce staffing needs?,
- **Recycle Stream Treatment** -- Is side stream treatment economical and is it needed now based on excess system capacity?,
- **RP-5** – How should RP-2, RP-5, and the Carbon Canyon Water Recycling Facility be integrated and how should the RP-5 site be developed to optimize available land?,
- **RP-1 Aeration System** – How should secondary treatment "Train D" be designed to improve treatment efficiency, hydraulic capacity and redundancy in "Trains A through C?", and
- **Technology** -- Use of technology to further reduce operating costs and land requirements at the IEUA water recycling plants.

Key goals will be to reduce operating costs at IEUA water recycling plants through cost-effective capital improvements and to ensure environmental compliance. In addition, improvements to the plants to expand existing capacity to process wastewater to meet the rapid growth is a critical emerging issue.

EXHIBITS

EXHIBIT VIII

REGIONAL DOMESTIC WASTE SYSTEM CAPITAL IMPROVEMENT (RC) FUND

SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2004/2005 PROJECTED ACTUAL	2005/2006 PROPOSED BUDGET	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total 2005/2006 - 2014/2015
RECEIPTS												
Connection Fees	$31,240,000	$34,000,000	$34,608,000	$29,705,200	$28,410,902	$27,012,211	$27,822,578	$27,224,392	$27,057,225	$25,335,402	$26,095,464	$287,271,374
2002 Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
2005 Bond Proceeds	0	820,000	0	0	0	0						820,000
Proceeds from the sale of property	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from the sale of Capacity Rights to CDA	0	0	0	0	0	0	0	0	0	0	0	0
Tax Revenues	9,777,193	10,560,301	16,715,195	17,550,954	18,428,502	18,981,357	19,550,797	20,137,321	20,741,441	21,363,684	22,004,595	186,034,147
Contract Work	1,500,000	5,260,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	380,000	8,980,000
Lease Revenues	72,000	54,000	0	0	0	0	0	0	0	0	0	54,000
Interest Revenue	1,257,280	1,418,459	1,491,655	1,398,210	1,501,506	1,475,950	1,520,048	1,359,440	1,445,282	1,325,895	1,353,670	14,288,115
Grants	3,221,783	7,246,177	2,250,000	50,000	0	0	0	0	0	0	0	9,546,177
Miscellaneous Revenue - Spec Sales/ WC Loan Repay	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL RECEIPTS	**$47,168,256**	**$59,158,937**	**$55,484,850**	**$49,124,364**	**$48,760,910**	**$47,889,518**	**$49,313,423**	**$49,141,153**	**$49,663,948**	**$48,444,981**	**$49,813,729**	**$506,793,813**
EXPENSES												
Operations and Administration	$3,476,750	$4,479,043	$3,596,916	$3,652,705	$3,709,505	$3,767,339	$3,764,416	$3,830,444	$3,897,813	$3,966,551	$4,036,693	$38,701,426
Interest Expense - SARI Capacity	47,307	44,801	42,145	39,330	36,347	36,346	33,183	29,831	29,831	29,831	29,831	351,476
Interest Expense - 1994 Bonds	4,364,426	4,227,560	4,089,010	3,898,910	3,721,776	3,521,435	3,319,897	3,122,056	3,122,056	3,122,056	3,122,056	35,246,612
Interest Expense - 1999 Bonds	1,431,934	216,058	173,960	128,713	79,850	27,250	1,118,960	1,118,960	1,118,960	1,118,960	1,118,960	6,220,631
Interest Expense - 2002 Bonds	585,162	798,250	839,300	879,000	857,813	835,875	813,000	789,188	764,438	738,750	712,125	8,025,739
Interest Expense - 2005 Bonds (Refinancing 99 bonds)	0	972,082	1,002,638	997,513	991,825	969,138	929,988	880,825	823,213	762,900	694,644	9,024,746
Contract Work/Special Projects	948,950	2,035,152	3,698,700	0	0	0	0	0	0	0	0	5,734,852
Monthly NRWS Capacity Fees/4R's	165,370	394,209	344,701	375,901	443,816	413,992	411,533	391,061	331,219	338,295	356,260	3,801,985
TOTAL EXPENSES	**$11,019,899**	**$13,165,135**	**$13,788,370**	**$9,972,072**	**$9,840,831**	**$9,571,374**	**$10,390,776**	**$10,162,365**	**$10,087,529**	**$10,078,343**	**$10,070,568**	**$107,107,463**
CAPITAL OUTLAY												
Work In Progress - RC	$34,924,527	$77,321,460	$52,315,991	$26,450,208	$29,754,752	$23,991,436	$34,497,870	$52,360,000	$25,315,500	$17,500,462	$13,941,890	$353,449,569
TOTAL CAPITAL OUTLAY	**$34,924,527**	**$77,321,460**	**$52,315,991**	**$26,450,208**	**$29,754,752**	**$23,991,436**	**$34,497,870**	**$52,360,000**	**$25,315,500**	**$17,500,462**	**$13,941,890**	**$353,449,569**
DEBT PAYMENTS												
Bonds Payable - 1994	$2,050,000	$2,185,000	$2,345,000	$2,515,000	$2,690,000	$2,890,000	$3,095,000	$3,290,000	$3,290,000	$3,290,000	$3,290,000	$28,880,000
Bonds Payable - 1999	870,000	905,000	945,000	990,000	1,040,000	1,090,000	0	0	0	0	0	4,970,000
Bonds Payable - 2002	500,000	520,000	540,000	565,000	585,000	610,000	635,000	660,000	685,000	685,000	685,000	6,170,000
Bonds Payable - 2005 (1999 Refinancing)		1,285,000	155,000	160,000	165,000	1,320,000	1,290,000	1,325,000	1,390,000	1,445,000	1,505,000	10,040,000
Other Long Term Liabilities - SAWPA Pipeline Capacity	41,756	44,262	46,917	49,732	49,732	52,716	55,879	59,231	59,231	59,231	59,231	536,162
TOTAL DEBT PAYMENTS	**$3,461,756**	**$4,938,262**	**$4,031,917**	**$4,279,732**	**$4,529,732**	**$5,962,716**	**$5,075,879**	**$5,334,231**	**$5,424,231**	**$5,479,231**	**$5,539,231**	**$50,596,162**

EXHIBIT VIII

REGIONAL DOMESTIC WASTE SYSTEM CAPITAL IMPROVEMENT (RC) FUND

SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2004/2005 PROJECTED ACTUAL	2005/2006 PROPOSED BUDGET	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total 2005/2006 - 2014/2015
OTHER FINANCING SOURCES (USES)												
Operating Transfer - Capital Contribution to GG	($1,014,120)	($1,345,184)	($428,989)	($503,288)	($425,027)	($411,707)	($466,000)	($466,000)	($466,000)	($466,000)	($466,000)	($5,444,195)
Operating Transfer - Capital Contribution to OM	(13,880,000)	(8,050,000)	(100,000)	2,310,000	2,350,000	0	109,000	(61,000)	(117,000)	(94,000)	(102,000)	(3,755,000)
Operating Transfer - Capital/Admin Support, WC	(500,000)	(1,000,000)	(2,000,000)	(4,000,000)	0	0	0	0	(650,000)	0	0	(7,650,000)
Operating Transfer - Replacement Transfers 4 Rs - NC	(795,364)	0	0	0	0	0	0	0	0	0	0	0
Operating Transfer - Debt Service, Co-Composting	(575,838)	(696,439)	(727,964)	(757,814)	(762,314)	(761,252)	(721,500)	(724,688)	(727,313)	(724,375)	(728,063)	(7,329,722)
Operating Transfer - Debt Service, Recharge Water	(437,334)	(535,783)	(562,346)	(582,533)	(584,471)	(586,033)	(587,221)	(588,033)	(588,471)	(578,533)	(568,221)	(5,761,845)
Operating Transfer - Replacement Capital from RO/TO	2,903,947	0	194,917	224,124	34,752	0	1,305,024	0	0	0	0	1,758,817
Operating Transfer - Capital Support from RO	0	0	1,177,375	1,212,671	1,249,026	1,255,270	1,261,547	1,267,855	1,274,194	1,280,565	1,286,968	11,265,471
Operating Transfer - Recharge Water Fund	(115,000)	(340,000)	(261,000)	(2,862,000)	0	0	0	0	0	0	0	(3,463,000)
TOTAL OTHER FINANCING SOURCES (USES)	**($14,413,709)**	**($11,967,406)**	**($2,728,007)**	**($4,958,840)**	**$1,861,966**	**($503,722)**	**$815,863**	**($667,703)**	**($1,361,285)**	**($669,905)**	**($567,256)**	**($20,836,295)**
FUND BALANCE												
Net Income (Loss)	($16,651,635)	($48,236,326)	($17,359,435)	$3,463,512	$6,497,461	$7,860,270	$164,761	($19,373,146)	$7,475,403	$14,717,040	$19,594,784	($25,195,676)
Beginning Balance July 01	$93,271,403	$76,619,768	$28,383,442	$11,024,007	$14,487,519	$20,984,980	$28,845,250	$29,010,011	$9,636,865	$17,112,268	$31,829,308	$267,933,418
ENDING BALANCE AT JUNE 30	**$76,619,768**	**$28,383,442**	**$11,024,007**	**$14,487,519**	**$20,984,980**	**$28,845,250**	**$29,010,011**	**$9,636,865**	**$17,112,268**	**$31,829,308**	**$51,424,092**	**$242,737,742**
RESERVE BALANCE SUMMARY												
Capital Asset and Construction	$17,649,170	$18,989,278	$1,247,859	$5,437,262	$11,983,104	$19,861,863	$19,995,946	$621,137	$8,103,807	$22,821,109	$42,726,336	$151,787,701
CCRA Capital Construction	48,259,271	0	0	0	0	0	0	0	0	0	0	0
Capital Cash Flow Support	1,994,967	663,520	1,068,152	295,361	293,224	277,876	306,681	316,527	310,547	310,443	0	3,860,131
Debt Service & Redemption	8,716,360	8,710,644	8,709,996	8,754,896	8,708,652	8,705,711	8,707,384	8,699,201	8,697,914	8,697,756	8,697,756	87,089,910
ENDING BALANCE AT JUNE 30	**$76,619,768**	**$28,383,442**	**$11,024,007**	**$14,487,519**	**$20,984,980**	**$28,845,250**	**$29,010,011**	**$9,636,865**	**$17,112,268**	**$31,829,308**	**$51,424,092**	**$242,737,742**

EXHIBIT IX
RECYCLED WATER CAPITAL IMPROVEMENT (WC) FUND
SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2004/2005 PROJECTED ACTUAL	2005/2006 PROPOSED BUDGET	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total 2005/2006 - 2014/2015
RECEIPTS												
Recycled Water Sales	$395,596	$774,288	$998,400	$1,137,600	$1,296,000	$1,550,400	$1,748,832	$2,397,840	$2,515,961	$2,530,626	$2,676,144	$17,626,091
MWD LPP Program	398,685	770,739	988,680	1,345,960	1,561,560	1,872,024	2,177,449	2,460,980	2,485,589	2,510,445	2,535,550	18,708,976
Contract Work	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	150,000
Grants (SAWPA, SWRCB)	4,716,684	9,000,000	12,075,176	5,000,000	2,424,824	2,000,000	8,052,000	392,000	3,550,000	0	0	42,494,000
Loan Proceeds	9,141,147	21,000,000	3,000,000	15,000,000	10,000,000	9,649,596	2,563,347	2,780,000	4,500,000	0	0	68,492,943
Interest Revenue	52,039	102,903	90,869	81,334	82,982	78,080	56,269	53,905	104,521	143,797	105,593	900,053
Other Revenue	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL RECEIPTS	**$14,719,131**	**$31,662,930**	**$17,167,925**	**$22,579,894**	**$15,380,366**	**$15,165,100**	**$14,612,897**	**$8,099,724**	**$13,171,072**	**$5,199,868**	**$5,332,286**	**$148,372,063**
EXPENSES												
Operations / Administrative Expenses	$1,239,545	$2,151,427	$2,384,502	$2,448,332	$2,505,152	$2,574,631	$2,644,485	$2,714,879	$2,789,085	$2,867,619	$2,951,096	$26,031,208
Interest Expense	142,236	366,655	349,844	334,561	319,107	303,271	287,046	270,422	253,387	235,934	218,050	2,938,077
Contract Work	165,000	115,000	65,000	65,000	40,000	31,000	50,000	5,000	5,000	5,000	10,000	391,000
Special Projects	576,605	645,500	342,300	275,000	275,000	0	0	0	0	0	0	1,537,800
TOTAL EXPENSES	**$2,123,386**	**$3,457,582**	**$3,141,446**	**$3,122,893**	**$3,139,258**	**$2,908,903**	**$2,981,532**	**$2,990,301**	**$3,047,472**	**$3,108,553**	**$3,179,146**	**$31,077,085**
CHANGES IN - LONG-TERM ASSETS												
Work in Progress	$16,213,499	$24,705,898	$13,600,835	$23,426,192	$10,168,667	$12,217,347	$10,885,927	$2,882,449	$3,016,129	$1,322,307	$4,520,002	$106,725,553
NET CHANGE, LONG-TERM ASSETS	**$16,213,499**	**$24,705,898**	**$13,600,835**	**$23,426,192**	**$10,168,667**	**$12,217,347**	**$10,885,927**	**$2,882,449**	**$3,016,129**	**$1,322,307**	**$4,520,002**	**$106,725,553**
SHORT-TERM LIABILITIES												
Due to RC Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Loan Payments - WW	0	0	0	0	0	0	0	0	0	0	0	0
Loan Payment - SRF Loan	268,554	595,844	812,854	627,937	643,392	1,468,809	1,500,251	1,539,700	1,594,775	1,688,311	1,934,442	12,206,315
NET CHANGE, SHORT-TERM LIABILITIES	**$268,554**	**$595,844**	**$812,854**	**$627,937**	**$643,392**	**$1,468,809**	**$1,500,251**	**$1,539,700**	**$1,594,775**	**$1,688,311**	**$1,934,442**	**$12,206,315**
OTHER FINANCING SOURCES (USES)												
Operating Transfer -Recycled Water from "RC"	$500,000	$1,000,000	$2,000,000	$4,000,000	$0	$0	$0	$0	$650,000	$0	$0	$7,650,000
Operating Transfer - Reserves Support (to)/from "WO"	0	0	0	0	0	0	0	0	0	0	0	0
Capital Equipment Transfer to GG	(10,471)	(28,867)	(13,809)	(18,360)	(15,505)	(15,019)	(17,000)	(17,000)	(17,000)	(17,000)	(17,000)	(176,560)
Transfer Projects from WC to RW	0	0	0	0	0	0	0	0	0	0	0	0
Operating Transfer -Water Reclam O&M Operation Suppo	0	0	0	0	0	0	0	0	0	0	0	0
Operatin Transer- TO Fund, Pumping Cost Reimb.	(131,093)	(183,108)	(213,578)	(263,527)	(293,669)	(337,074)	(379,774)	(419,413)	(473,936)	(535,548)	(805,169)	(3,704,796)
TOTAL OTHER FINANCING SOURCES (USES)	**$358,436**	**$788,025**	**$1,772,613**	**$3,718,113**	**($309,174)**	**($352,093)**	**($396,774)**	**($436,413)**	**$159,064**	**($552,548)**	**($822,169)**	**$3,768,644**
FUND BALANCE												
Net Income (Loss)	($3,527,872)	$3,691,631	$1,585,603	($879,016)	$1,119,875	($1,782,051)	($1,151,586)	$270,862	$5,671,759	($1,471,851)	($4,923,473)	$2,131,753
Beginning Balance July 01	$4,502,012	$974,139	$4,665,771	$6,251,374	$5,372,358	$6,492,233	$4,710,182	$3,558,596	$3,829,458	$9,501,217	$8,029,366	$53,384,694
ENDING BALANCE AT JUNE 30	**$974,140**	**$4,665,770**	**$6,251,374**	**$5,372,358**	**$6,492,233**	**$4,710,182**	**$3,558,596**	**$3,829,458**	**$9,501,217**	**$8,029,366**	**$3,105,893**	**$55,516,447**
RESERVE BALANCE SUMMARY												
Operating Contingency	530,847	864,395	785,361	780,723	784,815	727,226	745,383	747,575	761,868	777,138	794787	
Cash Flow Support	343,293	3,701,375	5,366,013	4,491,635	5,607,419	3,882,957	2,713,213	2,981,883	8,639,349	7,152,228	2,211,106	46,747,178
Capital Replacement	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,001	1,000,001
ENDING BALANCE AT JUNE 30	**$974,140**	**$4,665,770**	**$6,251,374**	**$5,372,358**	**$6,492,233**	**$4,710,182**	**$3,558,596**	**$3,829,458**	**$9,501,217**	**$8,029,366**	**$3,105,893**	**$55,516,447**

EXHIBIT X

RECHARGE WATER PROGRAM (RW) FUND

SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN									
	2004/2005 PROJECTED ACTUAL	2005/2006 PROPOSED BUDGET	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total 2005/2006 - 2014/2015
RECEIPTS												
2002 Bond Proceeds, Net	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Grants	1,298,248	2,600,000	2,394,173	0	0	0	0	0	0	0	0	4,994,173
Contract Cost Reimbursements - Debt Service (WM)	437,334	535,783	562,346	582,533	584,471	586,033	587,221	588,033	588,471	578,533	568,221	5,761,645
Contract Cost Reimbursements - Facilities Operation (WM)	0	1,500,000	1,000,000	0	0	0	0	0	0	0	0	2,500,000
Contract Cost Reimbursements - Operation (WM)	284,412	727,582	771,599	786,801	810,408	834,718	859,759	885,552	912,119	939,482	967,667	8,495,684
Interest Revenue	230,295	36,163	27,245	27,660	27,393	26,754	26,054	25,290	24,459	23,555	22,577	269,150
TOTAL RECEIPTS	$2,250,379	$5,401,528	$4,755,363	$1,396,994	$1,422,270	$1,447,506	$1,473,034	$1,498,875	$1,525,049	$1,541,570	$1,558,465	$22,020,653
EXPENSES												
Professional Fees and Services	$2,015	$17,640	$17,783	$18,001	$18,227	$18,458	$18,697	$18,943	$19,195	$19,457	$19,726	$188,129
Operations Expense	829,947	1,644,905	735,328	749,350	771,831	794,986	818,836	843,401	868,703	894,764	921,607	9,043,706
General Administration	60,728	60,433	62,246	64,113	66,037	68,018	70,058	72,160	74,325	76,555	78,851	692,797
Groundwtr Monitoring Wells Expenses-Non Reimbursable	0	904,029	904,029	904,029	904,029	904,029	904,029	904,029	904,029	904,029	904,029	
Laboratory Costs - Non-Reimbursable	70,000	47,000	476,800	483,398	490,400	497,812	512,540	527,916	543,754	560,066	578,869	4,716,155
Other Contract Services-Non Reimbursable	0	15,000	154,500	159,135	163,910	168,830	173,895	179,112	184,485	190,020	195,720	1,584,607
Financial Expense	491,616	671,566	704,891	735,066	718,941	702,066	684,441	666,066	646,941	627,066	606,441	6,763,285
Staff Labor, Burden & Overhead	184,524	523,873	518,834	337,112	337,112	337,112	337,112	337,112	337,112	337,112	337,112	3,739,404
TOTAL EXPENSES	$1,638,830	$4,442,446	$3,573,809	$3,450,204	$3,470,486	$3,491,111	$3,519,608	$3,548,738	$3,578,545	$3,609,069	$3,640,355	$36,324,370
CHANGES IN - LONG-TERM ASSETS												
Work-In-Progress	$14,231,236	$4,491,911	$3,637,400	$2,843,750	$0	$0	$0	$0	$0	$0	$0	$10,973,061
NET CHANGE, LONG-TERM ASSETS	$14,231,236	$4,491,911	$3,637,400	$2,843,750	$0	$0	$0	$0	$0	$0	$0	$10,973,061
LONG-TERM LIABILITIES												
Bonds Payable - 2002A Bonds	$383,051	$400,000	$420,000	$430,000	$450,000	$470,000	$490,000	$510,000	$530,000	$530,000	$530,000	$4,760,000
NET CHANGE, LONG-TERM LIABILITIES	$383,051	$400,000	$420,000	$430,000	$450,000	$470,000	$490,000	$510,000	$530,000	$530,000	$530,000	$4,760,000
OTHER FINANCING SOURCES (USES)												
Operation Transfer- Administration Support, "RC" Fund	$255,000	$2,046,029	$2,054,129	$1,684,562	$1,896,339	$1,908,471	$1,926,464	$1,949,057	$1,970,268	$1,992,115	$2,014,618	$19,646,052
Operating Transfers - Debt Service,"RC" Fund	437,334	535,783	562,346	582,533	584,471	586,033	587,221	588,033	588,471	578,533	568,221	5,761,645
Operation Transfer- Administration Support, "RC" Fund	115,000	340,000	281,000	2,862,000	0	0	0	0	0	0	0	3,483,000
TOTAL OTHER FINANCING SOURCES (USES)	$807,334	$2,923,812	$2,897,475	$5,329,095	$2,480,810	$2,494,504	$2,515,685	$2,537,090	$2,558,739	$2,570,648	$2,582,839	$28,890,697
INCREASE (DECREASE) IN WORKING CAPITAL RESERVES	($13,195,406)	($1,009,017)	$21,629	$2,134	($17,407)	($19,102)	($20,889)	($22,774)	($24,757)	($26,850)	($29,051)	($1,146,084)
WORKING CAPITAL SUMMARY												
Beginning Balance July 01	$14,972,025	$1,776,619	$767,603	$789,232	$791,366	$773,959	$754,857	$733,968	$711,194	$686,437	$659,587	$8,444,822
Reserve Increase/(Decrease)	(13,195,406)	(1,009,017)	21,629	2,134	(17,407)	(19,102)	(20,889)	(22,774)	(24,757)	(26,850)	(29,051)	(1,146,084)
ENDING BALANCE AT JUNE 30	$1,776,619	$767,603	$789,232	$791,366	$773,959	$754,857	$733,968	$711,194	$686,437	$659,587	$630,536	$7,298,739
RESERVE BALANCE SUMMARY												
Operation Contingencies	$1,776,619	$767,603	$788,232	$791,366	$773,958	$754,857	$733,968	$711,194	$686,437	$659,587	$630,536	$7,298,739
Capital Construction	0	0	0	0	0	0	0	0	0	0	0	0
ENDING BALANCE AT JUNE 30	$1,776,619	$767,603	$789,232	$791,366	$773,959	$754,857	$733,968	$711,194	$686,437	$659,587	$630,536	$7,298,739

EXHIBIT XI

NON-RECLAIMABLE WASTEWATER SYSTEM CAPITAL IMPROVEMENT (NC) FUND

SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2004/2005 PROJECTED ACTUAL	2005/2006 PROPOSED BUDGET	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total 2005/2006 - 2014/2015
REVENUES												
Capacity Fees - NRWS Users	$1,054,810	$2,287,588	$2,350,873	$2,416,056	$2,483,192	$2,552,344	$2,623,570	$2,696,933	$2,772,498	$2,850,329	$2,930,495	$25,963,879
Capacity Fees - RC	165,370	429,732	442,624	455,903	469,580	483,667	498,177	513,123	528,517	544,372	560,703	4,926,399
Capacity Admin Service Charge	0	0	0	0	0	0	0	0	0	0	0	0
Capacity Sold - NRWS Users	1,264,666	389,128	0	0	0	0	0	0	0	0	0	389,128
Special/Reimbursabin Contract Services	6,548	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	1,500	226,500
Property Tax Revenue	2,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	120,000
Interest Revenue	211,782	185,842	133,551	102,296	65,418	24,372	6,750	6,000	5,250	4,500	3,750	537,729
Volumetric Revenue	2,406,750	2,456,477	2,527,095	2,599,801	2,673,089	2,748,575	2,826,326	2,906,409	2,988,895	3,073,855	3,161,365	27,961,887
Volumetric Revenue - Reliant	59,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
Volumetric Revenue - OM & RO	183,663	110,471	113,785	117,199	120,715	124,336	128,066	131,908	135,866	139,942	144,140	1,266,429
Excess Use Fees - S/S,COD,BOD	333,756	799,497	823,481	848,186	873,632	899,840	926,836	954,641	983,280	1,012,778	1,043,162	9,165,333
Other service charges	12,420	84,750	66,731	68,726	70,780	72,897	75,078	77,320	79,633	82,014	82,256	740,183
Other Revenue	6,496	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUES	$5,707,060	$6,880,485	$6,595,141	$6,745,166	$6,893,406	$7,043,033	$7,221,802	$7,423,335	$7,630,937	$7,844,791	$8,039,371	$72,297,467
EXPENSES												
Operations	$3,946,397	$4,253,015	$4,461,993	$4,588,782	$4,725,860	$4,864,237	$5,061,537	$5,265,006	$5,478,005	$5,700,681	$5,918,684	$50,317,800
Interest Expenses	94,613	89,602	84,291	78,661	72,693	66,387	59,661	52,554	45,019	37,033	37,033	622,914
Contract Work/Special Projects	545,584	981,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,001	1,089,001
TOTAL EXPENSES	$4,586,594	$5,323,617	$4,558,284	$4,679,443	$4,810,553	$4,942,624	$5,133,198	$5,329,560	$5,535,024	$5,749,714	$5,967,718	$52,029,715
CHANGES IN - LONG-TERM ASSETS												
Work-In-Progress	$379,233	$3,006,623	$40,658	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$0	0	3,167,281
CSDLAC 4Rs	1,711,000	1,800,000	1,822,000	2,139,000	2,829,000	2,526,000	2,417,000	2,125,000	1,433,000	1,431,045	1,431,045	19,953,090
NET CHANGE, LONG-TERM ASSETS	$2,090,233	$4,806,623	$1,862,658	$2,159,000	$2,849,000	$2,546,000	$2,437,000	$2,145,000	$1,453,000	$1,431,045	$1,431,045	$23,120,371
LONG-TERM LIABILITIES												
GG Note Payable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SARI Pipeline Capacity Note	83,512	88,523	93,835	99,465	105,432	111,758	118,463	125,570	133,105	141,091	141,091	1,158,333
NET CHANGE, LONG-TERM LIABILITIES	$83,512	$88,523	$93,835	$99,465	$105,432	$111,758	$118,463	$125,570	$133,105	$141,091	$141,092	$1,158,334
OTHER FINANCING SOURCES (USES)												
Capital Equipment Transfers - GG	($60,730)	($69,280)	($17,491)	($18,360)	($15,505)	($15,019)	($17,000)	($17,000)	($17,000)	($17,000)	($17,000)	($220,655)
Capital Replacement Transfer From RC	795,364	0	0	0	0	0	0	0	0	0	0	0
TOTAL OTHER FINANCING SOURCES (USES)	$734,634	($69,280)	($17,491)	($18,360)	($15,505)	($15,019)	($17,000)	($17,000)	($17,000)	($17,000)	($17,000)	($220,655)
FUND BALANCE												
Net Income (Loss)	($318,645)	($3,427,554)	$82,873	($211,101)	($887,084)	($572,348)	($493,960)	($193,795)	$482,809	$505,941	$482,518	($4,231,606)
Beginning Balance July 01	$15,220,009	$14,901,365	$11,473,807	$11,536,680	$11,325,578	$10,438,495	$9,865,147	$9,382,267	$9,188,492	$9,681,300	$10,187,241	$107,881,392
ENDING BALANCE AT JUNE 30	$14,901,365	$11,473,807	$11,536,680	$11,325,578	$10,438,495	$9,865,147	$9,382,267	$9,188,492	$9,681,300	$10,187,241	$10,669,757	$103,749,784
RESERVE BALANCE SUMMARY												
Operating Contingency	$1,474,407	$1,772,539	$1,517,428	$1,557,814	$1,601,518	$1,645,535	$1,709,066	$1,774,520	$1,843,008	$1,914,571	$1,987,240	$17,323,239
CSDLAC Prepayment	1,835,573	1,835,573	1,887,840	1,947,360	2,005,781	2,106,070	2,211,374	2,321,942	2,438,039	2,438,039	2,438,039	21,629,858
Capital Expansion	11,591,384	6,482,024	6,760,530	6,679,020	6,296,531	5,188,527	4,388,706	3,690,739	3,273,008	3,873,896	6,244,457	52,677,450
Rate Stabilization Reserve	0	1,383,670	1,371,081	141,383	534,663	926,012	1,073,167	1,401,285	2,127,239	2,160,725	0	11,119,225
ENDING BALANCE AT JUNE 30	$14,901,364	$11,473,806	$11,536,879	$11,325,577	$10,438,492	$9,866,143	$9,382,283	$9,188,486	$9,681,294	$10,187,233	$10,669,746	$103,749,739

EXHIBIT X#

CONSOLIDATED ORGANICS MANAGEMENT (OM) FUND

SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2004/2005 PROJECTED ACTUAL	2005/2006 PROPOSED BUDGET	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total 2005/2006 - 2014/2015
RECEIPTS												
Tipping Fees	$265,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Organics Materials Revenue	14,800	0	0	0	0	0	0	0	0	0	0	0
Environment Benefit Credits	47,600	0	0	0	0	0	0	0	0	0	0	0
Proceeds from Sales of Property	0	6,158,000	0	2,339,250	2,339,250	0	0	0	0	0	0	12,836,500
Grants	395,000	0	0	0	0	0	0	0	0	0	0	0
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
Gas Sales	300,000	0	0	0	0	0	0	0	0	0	0	0
Interest Revenue	18,598	19,062	18,132	20,992	23,740	25,312	26,365	26,334	25,892	25,626	25,888	237,345
Other Revenue	1,150	0	0	0	0	0	0	0	0	0	0	0
Contract Cost Reimbursement	18,050	0	0	0	0	0	44,599	44,599	44,599	44,599	44,599	222,995
RCA Support Reimbursement	0	291,218	1,831,591	1,868,253	1,905,849	1,943,793	819,036	819,036	819,036	819,036	819,036	11,935,685
TOTAL RECEIPTS	$1,058,198	$6,468,280	$1,849,723	$4,228,495	$4,268,839	$1,969,106	$890,000	$889,969	$889,527	$889,263	$889,523	$25,232,525
EXPENSES												
Office & Administrative	$42	$64	$66	$68	$0	$0	$0	$0	$0	$0	$0	$198
Professional Fees and Services	184,091	36,000	36,000	35,500	35,500	35,500	55,359	55,575	55,798	56,026	56,264	457,524
Cost Reimbursable Contracts	27,698	0	0	0	0	0	0	0	0	0	0	0
Operation Expenses	539,754	11,311	11,230	9,507	9,793	10,087	15,037	15,037	15,037	15,037	15,037	127,113
Special Projects	462,832	10,000	10,000	10,000	0	0	0	0	0	0	0	30,000
Financial and Interest Expenses	324,964	436,439	457,964	477,814	467,314	456,252	449,390	449,390	449,390	449,390	449,390	4,542,733
Write-off Project Expense	0	0	0	0	0	0	0	0	0	0	0	0
Interest on GG Fund Loan	0	0	0	0	0	0	0	0	0	0	0	0
Staff's Salaries/Burden/OH & Other Allocations-RCA Support	0	291,218	1,831,591	1,868,253	1,905,849	1,943,793	0	0	0	0	0	7,840,504
Staff's Salaries/Burden/OH & Other Allocations	1,056,072	910,971	485,626	9,056	0	0	1,008,326	1,038,676	1,099,735	1,101,627	1,134,582	6,739,005
TOTAL EXPENSES	$2,607,253	$1,696,004	$2,812,479	$2,410,198	$2,418,256	$2,445,632	$1,528,114	$1,558,680	$1,619,960	$1,622,282	$1,655,573	$19,737,078
CAPITAL OUTLAY												
Investment in IERCA	$13,509,185	$16,214,496	$612,500	$629,000	$645,000	$662,000	$2,145,163	$2,209,518	$2,275,804	$2,344,078	$2,414,400	$30,151,960
Work in Progress	395,000	506,000	72,000	0	0	0	0	0	0	0	0	578,000
TOTAL CAPITAL OUTLAY	$13,904,185	$16,720,496	$684,500	$629,000	$645,000	$662,000	$2,145,163	$2,209,518	$2,275,804	$2,344,078	$2,414,400	$30,729,960
DEBT PAYMENTS												
Co-Composting Bonds - 1999/2002A	$250,000	$260,000	$270,000	$280,000	$295,000	$305,000	$315,000	$330,000	$345,000	$355,000	$370,000	$3,125,000
Notes Payable-GG Fund	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL DEBT PAYMENTS	$250,000	$260,000	$270,000	$280,000	$295,000	$305,000	$315,000	$330,000	$345,000	$355,000	$370,000	$3,125,000
OTHER FINANCING SOURCES (USES)												
Operating Transfer - Debt Service (RC)	$575,838	$642,054	$675,814	$707,989	$743,514	$772,314	$731,000	$746,000	$761,000	$771,000	$786,000	$7,336,695
Operating Transfer - Capital Contribution (RC)	13,880,000	8,050,000	100,000	(2,310,000)	(2,350,000)	0	50,000	0	55,000	30,000	35,000	3,660,000
Operating Transfers - RCA Support (RO)	0	430,660	1,918,450	1,973,027	2,027,589	2,082,883	2,145,163	2,209,518	2,275,804	2,344,078	2,414,400	19,821,992
Operating Transfers - Operation Support (RO)	1,150,000	1,000,000	670,000	260,000	210,000	210,000	84,000	84,000	94,000	140,000	170,000	2,872,000
TOTAL OTHER FINANCING SOURCES (USES)	$15,605,838	$10,122,714	$3,364,264	$631,016	$631,103	$3,064,897	$2,960,163	$3,019,518	$3,185,804	$3,285,078	$3,405,400	$33,690,057

EXHIBIT XB

CONSOLIDATED ORGANICS MANAGEMENT (OM) FUND

SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2004/2005 PROJECTED ACTUAL	2005/2006 PROPOSED BUDGET	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	Total 2005/2006 - 2014/2015
FUND BALANCE												
Net Income (Loss)	($97,404)	($1,780)	$43,206	$46,111	$18,657	$34,725	($118,114)	($188,611)	($135,433)	($147,019)	($145,050)	($593,205)
Beginning Balance July 01	$952,183	$554,779	$552,999	$596,206	$642,317	$661,014	$695,739	$577,625	$388,814	$253,381	$106,362	$4,388,182
ENDING BALANCE AT JUNE 30	$554,779	$552,999	$596,206	$642,317	$661,014	$695,739	$577,625	$388,814	$253,381	$106,362	($38,688)	$3,794,977
RESERVE BALANCE SUMMARY												
Capital Replacement	$283,431	$283,506	$292,824	$301,312	$299,273	$309,860	$325,410	$296,458	$322,127	$323,126	$326,960	$3,050,889
Operation Contingency Reserve	271,348	269,493	303,382	337,005	361,741	385,879	523,580	364,211	203,120	55,102	(97,782)	2,744,030
RESERVE BALANCE SUMMARY	$554,779	$552,999	$596,206	$642,317	$661,014	$695,739	$849,290	$660,679	$525,247	$378,228	$229,178	$5,794,896

APPENDIX A

INCREMENTAL EDU GROWTH DATA

APPENDIX A
2004/05 TEN-YEAR CAPITAL IMPROVEMENT PLAN
INCREMENTAL EDU GROWTH DATA

		INCREMENTAL EDU GROWTH (EDUs / YR)							
AGENCY	YEAR	RP-1	RP-4	RP-1/RP-4	CCWRF	RP-1/5	RP-2/RP-5	RP-5	SUM
	6/30/02 Baseline	12,883	15,745	19,363					47,990
	6/30/03 Baseline	13,419	16,640	20,534					50,595
	6/30/04 Baseline	14,882	17,922	22,316					54,920
CVWD	04/05	1,175	1,434	788					4,396
	05/06	1,189	1,452	1,808					4,449
	06/07	1,203	1,457	1,814					4,464
	07/08	1,156	1,447	1,832					4,435
Items shown in "RP-1/RP-4" column are currently in RP-1 but may in future bypass to RP-4 as the RP-4 Trunk Sewer is constructed	08/09	1,185	1,423	771					3,380
	09/10	1,132	1,362	722					4,236
	10/11	1,066	1,326	1,551					4,057
	11/12	1,026	1,359	1,560					3,830
	12/13	953	1,164	449					3,562
	13/14	868	1,058	1,320					3,247
	14/15	770	940	1,170					2,880
TEN-YR TOTALS		10,568	12,803	16,067					39,538
	6/30/02 Baseline	9,768	8,918	23,763					42,449
	6/30/03 Baseline	10,515	10,092	23,863					44,480
	6/30/04 Baseline	12,306	13,725	21,296					47,329
FONTANA	04/05	99	875	42					1,120
	05/06	110	1,100	55					1,265
	06/07	130	1,300	66					1,496
	07/08	118	1,175	59					1,352
Flow from the "RP-1/RP-4" service area currently goes to RP-1 but may in future go to RP-4 when San Bernardino Avenue Interceptor and Pump Station is constructed	08/09	105	1,050	53					1,208
	09/10	80	900	45					1,025
	10/11	85	975	44					1,104
	11/12	95	950	45					1,090
	12/13	85	850	43					978
	13/14	80	800	40					920
	14/15	73	725	36					834
TEN-YR TOTALS		974	9,725	488					11,187
	6/30/02 Baseline	732			10,703				11,435
	6/30/03 Baseline	728			10,649				11,378
	6/30/04 Baseline	720			10,536				11,256
MONTCLAIR	04/05	35			55				150
	05/06	35			55				90
	06/07	35			55				90
	07/08	35			55				90
Items shown in "RP-1" column go directly to RP-1 items shown in "CCWRF" column. Flow directly to CCWRF unless diverted to RP-1. This breakdown assumes no diversions	08/09	10			15				25
	09/10	10			15	-			25
	10/11	10			15				25
	11/12	10			15				25
	12/13	10			15				25
	13/14	10			15				25
	14/15	50			75				125
TEN-YR TOTAL		1,715			210				1,925
	6/30/02 Baseline	57,660						0	57,660
	6/30/03 Baseline	58,415						0	58,415
	6/30/04 Baseline	45,427				12,978		0	58,415
ONTARIO	04/05	600				204		0	804
	05/06	600				204		0	804
The flow going to RP-5 increases as the RP-1/RP-5 Bypass Sewer comes on line. New Model Colony is built. Portions of Ag Preserve presently sewered and flow is diverted to RP-1 Lift Stations to gravity flow to RP-5	06/07	600				274	500		1,374
	07/08	600				204	500		1,304
	08/09	600				204	1,000		1,804
	09/10	600				204	1,000		1,804
	10/11	600				204	1,000		1,804
	11/12	600				204	1,000		1,804
	12/13	600				204	1,000		1,804
	13/14	600				274	1,000		1,874
	14/15	600				204	1,000		1,804
TEN-YR TOTAL		5,800				1,980	8,300		16,080

DIX A

2004/05 TEN-YEAR CAPITAL IMPROVEMENT PLAN

INCREMENTAL EDU GROWTH DATA

INCREMENTAL EDU GROWTH (EDUs / YR)

AGENCY	YEAR	RP-1	RP-4	RP-1 RP-4	CCWRF	RP-1-5	RP-2 RP-5	RP-5	SUM
	6/30/02 Baseline	19,487			6,018				25,505
	6/30/03 Baseline	19,683			6,030				25,713
	6/30/04 Baseline	19,898			6,042				25,940
UPLAND	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
	[illegible]	[illegible]			[illegible]				[illegible]
TEN-YR TOTAL		1,956			1,896				3,852
	6/30/02 Baseline	622			14,896		0	2,304	17,822
	6/30/03 Baseline	622			11,415		0	2,167	14,204
	6/30/04 Baseline	622			11,370		19	2,199	14,210
CHINO	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
TEN-YR TOTAL		70			525		8,107	2,550	11,186
	6/30/02 Baseline				10,942		1,622	10,408	22,972
	6/30/03 Baseline				11,024		1,622	10,867	23,513
	6/30/04 Baseline				12,126		1,784	11,954	25,864
CHINO HILLS	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]			[illegible]		[illegible]	[illegible]	[illegible]
TEN-YR TOTAL		445			445		220	7,130	7,805

	YEAR	RP-1	RP-4	RP-1 RP-4	CCWRF	RP-1-5	RP-2 RP-5	RP-5	SUM
	6/30/02 Baseline	100,952	24,863	43,045	41,759	0	1,622	12,712	224,753
	6/30/03 Baseline	103,394	26,722	44,387	39,118	0	1,622	13,034	228,288
	6/30/04 Baseline	93,665	21,647	43,614	40,074	12,978	1,803	14,143	237,924
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GRAND TOTALS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	2,042	2,263	1,656	398	190	835	1,198	8,497
[illegible]	[illegible]	2,094	2,276	1,672	320	199	795	1,128	8,484

APPENDIX B

PROPOSED CAPITAL PROJECTS SUMMARY

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten-Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
Fund: CCCo-Composting Capital														
Location: 510...572 - Compost														
OR04001	Co-Composting Dust Control Sys	26,321											0	50,000
PL02001	Dairy Sewering Study	22,762	10,000	10,000	10,000								30,000	60,000
PL02041	IE Reg Composting Fac Proj	13,509,185	15,714,496										15,714,496	33,283,985
PL03001	Co-Compostg PhaseOut/PilotProj		578,000	71,999									649,999	650,000
Total	**Location 510...572 - Compost**	**13,558,268**	**16,302,496**	**81,999**	**10,000**								16,394,495	**34,043,985**
	Total Fund: CC	13,558,268	16,302,496	81,999	10,000								16,394,495	34,043,985

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
Fund: OCOrganics Mgmt Cap.Imprv. Fund														
Location: 285 - RP-5 Digester														
AA00412	Upgrade Control Panels at RED		69,930										69,930	69,930
	Total 285 - RP-5 Digester		**69,930**										**69,930**	**69,930**
Location: 810 - Organics Management Admin.														
PL02022	Organics Mgmt Prog Svc's	54,590												350,000
	Total 810 - Organics Management Admin.	**54,590**												**3,350,000**
Location: 820 - RP5 Manure Digester														
EP06002	Replace Iron Sponge		28,028										28,028	28,028
PA06007	Replace Conveyor System		111,200										111,200	111,200
	Total 820 - RP5 Manure Digester		**1,707,173**										**1,707,173**	**2,208,578**
	Total Fund: OC	54,590	1,777,103										1,777,103	5,628,508

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
Fund: NCNRW Capital Improvement Fund														
Location: 410...440 - NRW														
CW05700	NRW Connection & Reimb Constr	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	60.000	6.000
EB05007	NRW SITE RECORDERS	17,263												17,263
EB05008	NRW SITE RECORDERS	6,785												6,785
EB06001	NRW, Site Recorders		17,263										17,263	17,263
EB07001	NRW, Site Recorders			17,263									17,263	17,263
EC05002	2 Portable Gas Monitors	5,200												5,200
EC05009	CSDLAC Capital Replcmt Cst 4Rs	1,711,000												2,013,000
EC05010	NRW Pipeline Condition Assmnt	350.000	950.000										950.000	1.300.000
EC06009	CSDLAC Capital Replacement Cos		2.325.000										2.325.000	2.325.000
EC06010	NRWS Refurbishment		2,000,000										2,000,000	2,000,000
EC07009	CSDLAC Capital Replacement Cos			1.822.000									1.822.000	1.822.000
EC08009	CSDLAC Capital Replacement Cos				2.139.000								2.139.000	2.139.000
EC09009	CSDLAC Capital Replacement Cos					2.829.000							2.829.000	2.829.000
EC10009	CSDLAC Capital Replacement Cos						2.526.000						2.526.000	2.526.000
EC11009	CSDLAC Capital Replacement Cos							2.417.000					2.417.000	2.417.000
EC12009	CSDLAC Capital Replacement Cos								2.125.000				2.125.000	2.125.000
EC13009	CSDLAC Capital Replacement Cos									1.433.000			1.433.000	1.433.000
EC14009	CSDLAC Capital Replacement 4Rs										1.431.045		1.431.045	1.431.045

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
EN03700	NRW Special Projects	25.000												125.000
EN03750	NRWS Emergency Pipeline Repair	88.000												168.000
EN05070	Niagra Bottling Lateral Pipln	135,857	290,587	3,395									293,982	429,839
EN05073	Emergency Pipeline Repl-Elm	78,000	599,000										599,000	677,000
EN92007	Grove Ave NRW Relocation	8.573												491.400
GM05003	CEO/GM NRWS Cap Replcment Cont	20.000												20.000
GM06003	CEO/GM NRWS Cap Replacment C		20.000										20.000	20.000
GM07003	CEO/GM NRWS Cap Replacment C			20.000									20.000	20.000
GM08003	CEO/GM NRWS Cap Replacment C				20.000								20.000	20.000
GM09003	CEO/GM NRWS Cap Replacment C					20.000							20.000	20.000
GM10003	CEO/GM NRWS Cap Replacment C						20.000						20.000	20.000
GM11003	CEO/GM NRWS Cap Replacment C							20.000					20.000	20.000
GM12003	CEO/GM NRWS Cap Replacment C								20.000				20.000	20.000
GM13003	CEO/GM NRWS Cap Replacment C									20.000			20.000	20.000
PA04018	NRW Lift Station Pump Repairs	19.555												19.555
PA06006	Philly lift station, valves		16,899										16,899	16,899
Total	410...440 - NRW	**2,471,233**	**6,224,749**	**1,868,658**	**2,165,000**	**2,855,000**	**2,552,000**	**2,443,000**	**2,151,000**	**1,459,000**	**1,437,045**	**6,000**	**23,161,452**	**26,537,512**
	Total Fund: NC	2,471,233	6,224,749	1,868,658	2,165,000	2,855,000	2,552,000	2,443,000	2,151,000	1,459,000	1,437,045	6,000	23,161,452	26,537,512

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
Fund: RW Recharge Water Fund														
Location: 380 - Recharge Water Prog. Admin.														
AA00525	Recharged Sys Routine Expan &		300,000										300,000	300,000
AA00537	Misc. Basin Improve/RW Conn.	518,750	775,000		781,250								1,556,250	2,075,000
PL05008	Groundwater Monitoring Wells	750,000	2,143,750	1,112,400	187,500								3,443,650	2,406,500
PL05009	Title 22 Phase II Rpt	50,000	400,000										400,000	250,000
PL05015	Storm Damage Rpr/Brooks Basin	557,500												557,500
WR02016	CB Recharge Facility Improvmnt	13,431,238												39,981,812
WR02026	CB Rechg Fac Imp Administraton	20,000												180,000
	Total 380 - Recharge Water Prog. Admin.	**15,327,488**	**3,618,750**	**1,112,400**	**968,750**								**5,699,900**	**45,750,812**
Location: 382 - Groundwater Monitoring														
AA00548	TOC Analyzer		35,342										35,342	35,342
AA00549	Segmented Flow Analyzer		56,569										56,569	56,569
	Total 382 - Groundwater Monitoring		**91,911**										**91,911**	**91,911**
Location: 405 - Etiwanda Conservation Ponds														
AA00535	Etiwanda Cons. Pond Cncpt Dev.	132,500												132,500
	Total 405 - Etiwanda Conservation Ponds	**132,500**												**132,500**
Location: 422 - SCADA Systems														
AA00534	SCADA System Expansion	187,500	1,712,500	493,750									2,206,250	2,393,750
	Total 422 - SCADA Systems	**187,500**	**1,712,500**	**493,750**									**2,206,250**	**2,393,750**
Location: 423 - MWD Turnouts														
AA00515	MWD Turnout to 8th St. Basins		118,750	2,031,250	1,875,000								4,025,000	4,025,000
	Total 423 - MWD Turnouts		**118,750**	**2,031,250**	**1,875,000**								**4,025,000**	**4,025,000**
	Total Fund: RW	15,647,488	5,541,911	3,637,400	2,843,750								12,023,061	52,393,973

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
Fund: WC Recycled Water Capital Fund														
Location: 111 - Main Office Administration														
IS05016	Chino Wtrshd Database Mgmt Svs	138,701	125,000										125,000	138,701
	Total 111 - Main Office Administration	**138,701**	**125,000**										**125,000**	**138,701**
Location: 240...244 - RP2														
EN01007	Rec Wtr Systm Hydrants/Meters	68,000	71,260										71,260	180,500
	Total 240...244 - RP2	**68,000**	**71,260**										**71,260**	**180,500**
Location: 279 - RP-4 Water Reclamation System														
AA00487	RP-4 Area Pump Station		438,000										438,000	438,000
	Total 279 - RP-4 Water Reclamation System		**438,000**										**438,000**	**438,000**
Location: 310...370 - Recycled Water														
AA00520	Recycled Water Land Acquis II											500	500	4,000,000
AA00544	Wineville Ave R W Pipe Ext -								522,000	782,580			1,304,580	1,304,580
AA00551	1600 Highland Reg. RW Pipeline											339,988	339,988	2,321,880
AA00554	Bickmore Ave. Reg. RW Pipeline											500,000	500,000	6,668,218
AA00555	900 West Reservoir and Pipelin											835,834	835,834	11,302,770
AA00556	7TH & 8TH ST SB Pipeline					276,989	1,769,811	1,009,152	253,112				3,309,064	3,309,064
AA00557	Etiwanda Ave Pipeline South Ex											100,000	100,000	4,362,693
AA00558	Euclid Ave Interconnect & Res											300,000	300,000	23,494,580
AA00559	RP-1 Outfall Parallel Reg RW P											1,000,000	1,000,000	31,239,992

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP										10 Year Budget	Total Project Budget
			05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	FY 05/06-14/15	
AA00560	RP-1 to 1050 Zone PS											100,000	100,000	2,525,814
AA00564	Whitram Parallel Reg RW Pipeli											100,000	100,000	1,593,285
AA00566	San Sevaine/Etiwanda RB Supply					1,271,581	4,058,231	2,657,455	843,776	2,096,253	1,185,000	1,106,372	13,218,668	22,303,312
AA00567	Chino Hills 800 Zone Improveme				1,534,296	4,967,801	3,258,964	1,042,909					10,803,970	10,803,970
CW05500	Recycled Wtr Reimb Cost 04/05	15,000												15,000
CW06500	Recyc Wtr Cost Reimb Constrn		15,000										15,000	15,000
CW07500	Recyc Wtr Cost Reimb Constrn			15,000									15,000	15,000
CW08500	Recyc Wtr Cost Reimb Constrn				15,000								15,000	15,000
CW09500	Recyc Wtr Cost Reimb Constrn					15,000							15,000	15,000
CW10500	Recyc Wtr Cost Reimb Constrn						6,000						6,000	6,000
EN01020	4th St Recycled Water Pipelnes	9,812,009												9,688,096
EN01023	Wineville Ave Reg Pipeln Phsel	40,905												2,307,200
EN01024	RP1/RP4 Recyc Wtr Pmp Stn Ph I	1,039,233											0	7,747,999
EN01025	Pine Avenue Recycled Wtr Line	35,683												1,066,000
EN03028	Philadelphia St RecycWtr Pipln	1,965,460												3,591,400
EN03500	Recyc Wtr Special Projects	25,000	25,000	25,000									50,000	125,000
EN05012	Land Phase II Recyc Wtr Proj	607,706	552,706										552,706	1,160,412
EN05038	Edison-Merrill Recyc Wtr Pipln	60,000	140,000	2,000,000	13,500,000								15,640,000	9,152,969
EN05055	Misc WC Construction Projects	192,296	137,296	137,296	137,296	137,296	137,296	137,296	137,296	137,296	137,307		1,235,675	1,427,971

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
EN05057	RP5/RP2 Recyc Water Pipelines	240,215	3,570,330										3,570,330	3,810,545
EN06022	Recycled Water Land Acquisit I		5,000,000										5,000,000	5,000,000
EN06023	City of Chino RW Lines Reb		1,500,000										1,500,000	1,500,000
PL05012	Max Benefit Basin Plan Monitor	150,000	100,000	50,000	50,000	25,000	25,000	50,000	5,000	5,000	5,000	10,000	325,000	150,000
WR02002	RP4: Etiwanda Extension to 210	2,342,146												3,621,000
WR04016	Recycle Wtr Dist Sys - Ph II	767,421	13,122,340	11,463,339	8,254,600	3,515,000	2,993,045	6,039,115	1,106,265				46,493,704	28,100,000
WR05007	SAWPA Project Participation	10,904												10,904
WR05012	FY0405 Reg. Recycled Wtr Mrktg	194,000												243,340
WR05013	FY0405 RW Prog-Mktg/Tech Assis	207,000												259,160
WR06007	SAWPA Project Participation		41,500										41,500	41,500
WR06012	FY0506 Reg. Recycled Wtr Mrktg		125,000										125,000	125,000
WR06013	FY0506 RW Prog-Mktg/Tech Assi		150,000										150,000	150,000
WR07007	SAWPA Participation			42,300									42,300	42,300
WR07012	FY0607 Reg. Recycled Wtr Mrktg			125,000									125,000	125,000
WR07013	FY0607 RW Prog-Mktg/Tech Assis			150,000									150,000	150,000
WR08012	Recy Wtr Program-Admin/Plannin				125,000								125,000	125,000
WR08013	FY0708 RW Prog-Mktg/Tech Assis				150,000								150,000	150,000
WR09012	RW Program-Admin/Planning					125,000							125,000	125,000
WR09013	RW Program-Marketg/Tech Assist					150,000							150,000	150,000
	Total 310...370 - Recycled Water	**16,704,978**	**24,479,172**	**14,007,935**	**23,766,192**	**10,483,667**	**12,248,347**	**10,935,927**	**2,867,449**	**3,021,129**	**1,327,307**	**4,392,694**	**107,529,819**	**205,456,954**
	Total Fund: WC	**16,911,679**	25,113,432	14,007,935	23,766,192	10,483,667	12,248,347	10,935,927	2,867,449	3,021,129	1,327,307	4,392,694	108,164,079	206,214,155

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
Fund: RC Regional Capital Improvements														
Location: 111 - Main Office Administration														
CP06006	Regional Facilities Landscape		50.000										50.000	50.000
TS06001	Operations Database		183.100										183.100	183.100
	Total 111 - Main Office Administration		**233,100**										**233,100**	**233,100**
Location: 114 - Warehouse														
PA06002	RP1. HVAC control upgrade		41.938										41.938	41.938
	Total 114 - Warehouse		**41,938**										**41,938**	**41,938**
Location: 115 - Maintenance Administration														
EM05004	LEL Meters for Water Collectn	10.775												10.775
EM05005	Explosion Proof Camera & Tract	53.876												53.876
	Total 115 Maintenance Administration	**64,651**												**64,651**
Location: 116 - RP-1 Operations Center														
AA00065	Lab - Replace Fume Hood System				44.440								44.440	44.440
AA00068	Lab -BOD Incubator Replacement				4.111								4.111	4.111
LB06001	Lab -BOD Incubator Replacement		4.111										4.111	4.111
LB06002	GC/MS for Semi-volatiles		121.263										121.263	121.263
LB06005	Clean Bench		11.583										11.583	11.583
LB06006	Turbo Vap		9.159										9.159	9.159

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
LB06007	Dionex Upgrade		19.934										19.934	19.934
LB06008	DRC channel		7.004										7.004	7.004
OA05005	RP1 Admin Building Enhancement	9.700												9.700
	Total 116 - RP-1 Operations Center	**9,700**	**173,054**		**48,551**								**221,605**	**245,334**
Location: 117 - Maintenance Facility - North														
AA00462	RP1. Crane Replacement							215.638					215.638	215.638
PA05001	Repl Maint Band Saw	8.081												8.081
PA05002	Pneumatic Line Plugs	4.310												4.310
PA05003	RP1 Storage Containrs	42.210												42.210
PA05004	10 Fence @Containers	7.000												7.000
PA05012	Extend Fire Sprinkler Maint	8.000												8.000
AA00470	Electrical Carts		19.452										19.452	19.452
PB05002	5" Core Drill Purchase	8.081												8.081
	Total 117 - Maintenance Facility - North	**77,682**	**19,452**					**215,638**					**235,090**	**312,772**
Location: 118 - Maintenance Facility - South														
PA06003	Purchase Portable Pumps		32.863										32.863	32.863
	Total 118 - Maintenance Facility - South		**32,863**										**32,863**	**32,863**
Location: 170 - RP-4 Administration														
AA00417	Trailer for RP-4 / IERCF Offic		13.139										13.139	13.139
	Total 170 - RP-4 Administration		**13,139**										**13,139**	**13,139**

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
Location: 210 - Regional Administration														
AA00394	Automated Plant Chem Order Sys			1,870				66,940					68,810	68,810
CP05003	PANIC ALARM SYSTEMS	9,932												9,932
EC05003	EC ISCO Composite Samplers	5,200												5,200
AA00468	ISCO 6712C Portable Sampler		8,771										8,771	8,771
EC06012	Western Mule Bumper Mounted		4,795										4,795	4,795
EM06007	Upgrade Foxboro SW to 8.x		52,300										52,300	52,300
EM06010	Web Information Sys for Exec's		25,766										25,766	25,766
EN02001	Right of Way Document Organize		59,500										59,500	60,000
EN02016	Manhole Sealing	7,000												28,300
EN03014	Engineering-Grants Admin Costs	25,000	25,000	26,000									51,000	100,000
EN03300	Regional System Special Proj's	70,000	70,000	70,000									140,000	350,000
EN04013	Manhole Sealing Proj Phase II	28,000												38,500
EN04018	Engineering-As-Building		100,400	100,000									200,400	260,400
EN05023	MWD Ion Exchng Conn to NRW Sys	180,000	2,700,000	500,000		1,620,000							4,820,000	5,000,000
EN05049	Agency Operational Prmtrs Stdy		159,500										159,500	159,500
EN05053	Fac Performance Objctv Anlysis		312,752										312,752	312,752
EN05054	Misc RC Construction Projects	157,780												2,018,260
EP05001	California L.E.E.P	100,000	50,000										150,000	150,000
GM05001	CEO/GM Regional Cap. Replcmnt	37,800												40,000
OA05002	Life Rings & Cabinets	20,365												20,365
PA05015	RP1 Siloxane Damage Recovery	500,000												500,000

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
PL01001	Northern Svc Area-Master Plan	75.500												1.465.000
PL02004	BAR Access Program	8.050												8.050
PL05002	Ph II Surf Wetlands&Hab	173.000	383.000	3.231.700									3.614.700	3.874.700
PL05003	Riparian Habitat Enhancement	84.900	19.500	5.700									25.200	112.700
PL05004	Survey Salin Ctrl Mthd	27.300	16.100	6.600									22.700	56.600
PL05005	Pathogen Source Evaluation	47.700	52.650	5.750									58.400	102.500
PL05006	Chino Creek Master Plan	368.000	184.250	33.950									218.200	586.200
PL05007	FY04/05 Facility Master Plan		300.000	300.000									600.000	990.000
PL05013	Chino Creek Master Plan	10.000	9.900	10.000									19.900	29.900
PL05014	Chino Creek Master Plan	10.000	9.900	10.000									19.900	29.900
	Total 210 - Regional Administration	**1,945,527**	**4,544,084**	**4,301,570**		**1,620,000**		**66,940**					**10,532,594**	**16,314,406**
Location:	220 - Regional Interceptors													
AA00545	Western Trunk Interceptor											500.000	500.000	500.000
EN03009	Etiwanda Interceptor Manholes							379.900					379.900	379.900
EN05002	Manhole Sealing Project							166.243					166.243	166.243
EN05015	Easements for Archibald Sewers	48.191												48.191
EN05035	Upland Intrcptr Rlf Swr Ph II	350.000	500.000	10.779.545	3.000.000								14.279.545	14.629.545
EN06011	Collections Syst Emergency Upg		750.000										750.000	750.000
EN06013	Collections System Chino Ave 1		802.000										802.000	802.000
EN06019	Collections System CIW Connect		119.000										119.000	119.000

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
PL02012	RP1 to RP5 By-Pass	2,600,000	22,501,500										22,501,500	266,985
PL04001	San Bernardino Pump Stn Land		490,000										490,000	500,000
	Total 220 - Regional Interceptors	**2,998,191**	**25,162,500**	**10,779,545**	**3,000,000**			**546,143**				**500,000**	**39,988,188**	**18,161,864**
Location: 221 - Montclair Lift Station														
EN02022	Montclair L S Pavement Mtn	3,500												3,500
EP06003	Replace Stand By Generator		45,183										45,183	45,183
	Total 221 - Montclair Lift Station	**3,500**	**45,183**										**45,183**	**48,683**
Location: 222 - Prado Lift Station														
EB05006	CIW Pump Controller	9,841												9,841
EN03002	Prado Dechlor Stn Pavement Mnt	12,600												12,600
	Total 222 - Prado Lift Station	**22,441**												**22,441**
Location: 225 - Upland Hills WRP														
OA04002	Upland Hills Plant Modificatio	100,000									100,000	918,790	1,018,790	1,018,790
	Total 225 - Upland Hills WRP	**100,000**									**100,000**	**918,790**	**1,018,790**	**1,018,790**
Location: 230...238 - RP1														
AA00395	Advanced Plant Automation							129,877					129,877	129,877
AA00450	RP-1 Tertiary Filter Expansion				370,000	2,000,000	1,424,666						3,794,666	3,794,666
AA00452	RP-1 Storm Water Contain Impro							438,000					438,000	438,000
AA00473	Asphalt TP1 and Warehouse area							258,600					258,600	258,600
AA00484	RP-1 Filtrate Treatment Expans										600,000	3,174,000	3,774,000	3,774,000

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
AA00536	Purchase set of VHP heads			38.790									38.790	38.790
EA03007	Digester Electrical Compliance	30.000												350.000
EA04002	TP1 MCC UTILITY WATER PUMP	17.000												81.738
EA04004	Upgrade 2 Wksms UltraSmarc 6	1.000												47.383
EA04005	RP1/2/4 CCW DCS Alarm Upgrade	15.000												33.661
EA04008	RP1 Public Address System	10.000												19.000
EM05007	RP1 PC Workstation Replacemnts	15.332												15.332
EM05008	RP1 Labtop Computer - 5 ea	38.449												38.449
EM05009	RP1 CEM DAHS	47.029												47.029
EM05010	RP1 DCS Vers 7 Hardware Upgrad	160.485												160.485
EM05013	RP1 Install Wireless Workstatn	117.155												117.155
EM05015	RP1 Network Analyzer	34.698												34.698
EM05016	RP1 UPS at MCB Replacement	25.434												25.434
EM05017	RP1 Gas System Automation	55.366												55.366
EM05018	TP1 Rebuild I/O Hubs	60.786												60.786
EM06008	GE PLC Upgrade		12.079										12.079	12.079
EM06011	Laptop/SW/HW Tools New DCS Pos		46.294										46.294	46.294
EM06014	Gas flow meters and kW meters		36.673										36.673	36.673
EM06015	Install gas filteration system		42.979										42.979	42.979
EM06016	RP-1 Turbo Chrgr Cntrl Upgrade		61.403										61.403	61.403

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
EN01010	RP1 Chlorine Contact Tank Exp	883.300												4,817,200
EN01015	RP1 Entry Road Imprv/Landscape	201.000	200.000										200.000	592.000
EN02013	RP1 Wste Washwtr Pmp Well Acce	55.503												189.500
EN02014	Prado Dechlor Seismic Retrofit	44.195	441.219										441.219	491.700
EN02036	RP1 Aeration Basin Drain Pmps	20.000	278.900										278.900	298.900
EN03020	Visitor Cntr Ont Soccer Complx									115.500		100	115.600	115.500
EN03021	RP1 Ramp Repair Dewatrng Bldg	40.392												79.800
EN03350	Regional Sys Emergency Pipelin	30.000												90.000
EN04010	RP1 Maintenance Access Road	4.000												179.000
EN04019	RP1 Digester Gas Storage, III	29.000												322.300
EN04022	RP1 Sludge Hopper Ports							252.100					252.100	254.100
EN04024	RP1 Access Bridge									200.000	697.540		897.540	897.540
EN04026	RP1 Coating Maintenance, Phl						146.800						146.800	149.050
EN04034	TP1 Chlorination Line Replcmnt	230.204												525.254
EN04035	RP1 Gravity Thickner Pip Mods	24.000	274.800	200.000									474.800	499.800
EN04036	RP1 3-Phase Digestion Imprvmnt	122.000	1,584.284	1,000.000									2,584.284	2,697.217
EN05006	RP1 Sec Treatment System Mods			500.000	1,500.000	12,600.000	12,686.429						27,286.429	27,286.429
EN05007	RP1 Aeration Basin Modificatio	2,163.527	500.000										500.000	2,663.527
EN05008	RP1 Sludge Screening Facility	12.000	679.242	5.400									684.642	696.642
EN05009	RP1 Dig 5,6 & 7 Seismic Retrft	206.000	200.000	1.000									201.000	421.000

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

Project #	Description	Projected Actual 04/05	Ten - Year CIP 05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10 Year Budget FY 05/06-14/15	Total Project Budget
EN05010	RP1 Mxr Instll at OE Structure	10.770	440.457	3.693									444.150	454.920
EN05011	TP1 Sodium Hypochlorite Stn Ex	23.000	302.434										302.434	325.434
EN05014	RP1 Gravity Thickener No. 2										102.922	2.000.000	2.102.922	2.102.922
EN05028	TP1 Flash Mixer Access	13.269	294.693	2.410									297.103	310.372
EN05030	RP1 Food Waste Storage Pump St	246.267	247.394	50.000	156.084	200000							653.478	899.745
EN05050	RP1/2 Digester Gas Sys Mods	550.000	500.000	3.650.000	1.000.000								5.150.000	3.293.511
EN05059	TP1 Chlorination Separation	102.979	344.557	3.926									348.483	451.462
EN05071	TP1 Outfall Flowmeter Install	7.974	293.071	2.357									295.428	303.402
EN06010	RP-1 Waste Wash-Water Sediment		658.000										658.000	658.000
EN06012	RP-1 Dechlor Stat Cap Eval & D		250.000										250.000	250.000
EN06015	RP-1 Dewatering Facilities Expa		1.000.000	3.500.000	5.500.000								10.000.000	10.000.000
EN06016	RP-1 Biological Gas Scrubber		200.000	575.000									775.000	775.000
EN06017	RP-1 Cogeneration Fac Expansn		1.000.000	500.000									1.500.000	1.500.000
EN06018	RP-1 Heat Recovery System		700.000										700.000	700.000
EN20033	Upland Interceptr Relief Pha I	2.751.300	10.000										10.000	3.198.000
EN20046	TP1 Outfall Energy Recovery	1.000	62.000										62.000	64.000
EN20049	Cucamonga Interceptor Modifica	88.300												306.394
EN99003	RP1 Phil Entry Widening	40.000	4.000										4.000	86.100
EP06004	Major Equipment Repair/Replace		455.000										455.000	455.000
EP06005	Install Blower #4 at RP1		1.384.500										1.384.500	1.384.500

APPENDIX B
Current and Proposed Capital Projects Summary
List by Fund and Location

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IS03011	RP1 Repl 10&15 S Cntrl Processr	7.570												50.357
OA05004	RP1 Multi Gas Monitor	6.076												6.076
OA05006	Elv Basin Sampling	5.388												5.388
OA05007	TP1 Flow Meter	21.300												21.300
OA05008	TP1 Liquid Containment, Bleach	26.938												26.938
PA03011	RP1 Rebuild IPS Pumps 1,2 & 3	10.000												46.849
PA03014	RP1 Rebld,Repl c Dewtr Hopper	20.000												56.100
PA03015	RP1 Closed Loop-Gas Compressor	10.000												30.683
PA03020	Upgrade 2 Accel WkStn-UltraSpar	10.000												45.233
PA03021	Upgrade 4 Foxboro AW Station	10.000												68.693
PA03022	Upgrade Foxboro Sftwr Ver 7.x	10.000												48.920
PA04012	TP1 Uninterruptible Pwr Sply	10.000												25.890
PA05005	RP1 Repl Roof on ERB	17.000												17.000
PA05006	Repl Roof on Solids Mgt Bldg	18.200												18.200
PA05007	Rebuild Kits PD Pumps	30.170												30.170
PA05008	Rebld Gas Compr @ERB	28.015												28.015
PA05009	RP1 12kV Meters Tests	15.000												15.000
PA05010	TP1 Build Shops at CL2 Bldg	11.832												11.832
PA05011	RP1 Grit Clarifier Replacement	24.783												24.783
PA05013	RP1 Chains & Rails Replacement	39.472												39.472

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PA05014	2 Boiler Fire Boxes @RP1	100.000												100.000
PA06008	RP1. Digester Pumps		81.726										81.726	81.726
PA06009	Rebuild IPS pump 4.5		33.826										33.826	33.826
PA06010	RP1 Digester P.D. pumps.		48.631	51.864	55.096								155.591	155.591
PA06011	RP1 Gas Compressors		48.275										48.275	48.275
PA06012	RP1 Primary Clarifiers		86.200	86.433	90.510			2.481					265.624	906.248
PA06013	RP1 Dewatering Conveyor		83.121										83.121	83.121
PA06014	RP1. Rebuild Belt Presses		177.466	1.655									179.121	179.121
PA06019	RP 1 lagoon cannons		13.129										13.129	13.129
PB05001	RP1 Sampler Heads Replacement	8.081												8.081
PB05003	RP1 IPS 3 VFD Pumps-Install	22.628												22.628
PB05004	TP1 CL2 Controls Automation	8.081												8.081
PB05005	TP1 VFD for Intake Pump	26.938												26.938
PB06001	RP1. Eletrical Parallel Equ.		151.073										151.073	151.073
PL03004	Agency Odor Monitoring/Mit Prg	285.000												750.000
PL03006	RP1 Odor Control - Phase I	2.802.000	3.346.900										3.346.900	5.804.900
PL05001	RP1 Modernization		65.000				2.161.000	2.161.000					4.387.000	4.300.000
	Total 230...238 - RP1	12,112,186	16,639,326	10,172,528	8,671,690	14,800,000	16,418,895	3,242,058		315,500	1,400,462	5,174,100	76,834,559	94,472,551

APPENDIX B
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List by Fund and Location

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Location:	240...244 - RP2													
AA00399	PC Workstation Replacements					14.746							14.746	14.746
EA05002	RP2 Daft Pressure Pumps Replc	11.974												11.974
EB05001	RP2 Control Bldg HVAC Units	19.860												19.860
EB05002	RP2 VFDs Replacement	29.317												29.317
EB05005	RP2 Digester Level Transmitter	6.275												6.275
EN01029	RP2 3 Phse Digestion Sys Imprv	2.076.465	12.000										12.000	3.008.408
EN02032	RP2 Landscaping/Paving	22.810												27.000
EN04002	RP2 Landscaping & Paving Modif	65.600												72.600
EN04003	RP2 Circul/Chino Potable Water	39.424	250.454										250.454	292.078
EN04017	RP2 Landscape/Paving Modifictn	123.375												137.300
EN04027	RP2 Coating Maintenance. Ph I	3.600	76.050										76.050	80.800
EN05018	RP2 Centrifuge Relocation	243.603												243.603
EN05019	RP2 Dewatering Bldg Skylight	3.000	22.570										22.570	25.570
EN05020	RP2 Waste Storage Pump Station	127.221	393.262	3.573									396.835	524.056
EN05027	RP2 DAFT System Modifications	12.000	195.345	1.693									197.038	209.038
EN05058	RP2 Solids Handling Automation	9.000	148.949										148.949	157.949
EN05067	RP2 Decommissioning	100.000	100.000					1.651.558					1.751.558	1.851.558

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EN06014	RP-2 Dewater Cake Storage Sys		330.000			3,000.000							3,330.000	3,330.000
PB04010	RP2 Waukesha Repair	50.000												70.000
PL04002	RP2/5 Chino Creek Othr Use Std	25.000	200.000										200.000	250.000
	Total 240...244 - RP2	**2,968,524**	**1,728,630**	**5,266**		**3,014,746**		**1,651,558**					**6,400,200**	**10,342,132**
Location: 250...254 - CCWRP														
AA00407	CCWRP Prim Clarif Div Str						247.000						247.000	247.000
AA00438	CCWRP Sec Clar Inlet Stru Gate							201.000					201.000	201.000
AA00440	CCWRP Sec Clarifier Algae Cont											249.000	249.000	249.000
EA05001	CCWRP Grit Aers & Trough Replc	14.788												14.788
EA05003	CCWRP Mixer Lifting Devices	33.925												33.925
EB05009	CCWRP Dissolved Oxygen Probes	19.568												19.568
EM05011	CCWRP DCS Network Security Enh	69.214												69.214
EM06009	Replace 6 WS and Add 2 New		38.670										38.670	38.670
EN02037	CCWRF Chlorination Facility	256.700	300.000	952.000									1,252.000	1,526.700
EN04028	CCW Coating Maintenance, Ph I	2.700	44.050										44.050	51.850
EN04030	CCWRP Aeration System Mod.	478.000	1,000.000	2,050.000									3,050.000	4,481.250
EN05017	CCW Odor Control System Upgrad	44.770	263.130	2.392									265.522	310.292
EN05029	CCW Prim Clfr Equip Rep & Coat							339.762					339.762	339.762
EN05061	CCW Trtv Flt&Chlrn Tnk Expan	141.371	2,000.000	1,000.000	4,000.000								7,000.000	8,769.868

APPENDIX B
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OB04002	CCWRF Sec. Clarifier Weir Was	15,510												65,200
OB04003	CCWRF Oper Bldg Landscaping	10,100												10,100
OB05001	CCW Taylor Drum Carts	10,850												10,850
OB05002	CCW Water-Champ Purchase	110,850												110,850
OB05003	CCW Scrubber H2S Monitoring	29,850												29,850
PA06015	CCWRF Bar rake		166,614										166,614	166,614
PA06016	CCWRF. Utility Pump overhaul		27,360	25,860									53,220	53,220
PA06017	CCWRF. Scum Well Pump Rebuild		9,745	9,745	10,284								29,774	29,774
PA06018	CCWRF. Sluge Pumps		97,939										97,939	97,939
PA06020	CCWRF. Mixed Liq. Pump		19,360	19,360	19,683	20,006							78,409	78,409
PA06022	Refurbish Parapet Wall, CCWRF		33,015										33,015	33,015
	Total 250...254 - CCWRP	**1,238,196**	**3,999,883**	**4,059,357**	**4,029,967**	**20,006**	**247,000**	**540,762**				**249,000**	**13,145,975**	**17,038,708**
Location:	270...274 - RP4													
EA04009	TP4 Filter Valves Replacement	12,000												49,000
EM05003	RP4 Maintenance Bldg HVAC	8,620												8,620
EM05012	RP4 Wireless LAN Bridge	274,396												274,396
EM06012	RS Maint. Autom. Cont. Center		54,088										54,088	54,088
EN01003	RP4 Energy Load Reductn Fac	6,159,280												10,073,710
EN03023	San Bernardino Ave Pump Stn	100,000	100,000	100,000	2,100,000	3,800,000							6,100,000	4,276,000
EN04011	RP4 Liquid Expansion to 14 mgd	2,725,000	10,600,000	19,175,000	700,000								30,475,000	34,700,000
EN04029	RP4 Coating Maintenance, Ph I						47,750						47,750	49,300
EN05069	RP-4 Liq & Solids Exp 21MGD						4,000,000	25,000,000	31,000,000				60,000,000	60,000,000

APPENDIX B
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OD05001	Compliance Sampler Replacemnt	14,148												14,148
OD05002	RP4 1/2 Ton Pick Up Truck	17,025												17,025
PL05011	RP-4 Land Acquisition	75,000	165,000				200,000	2,000,000	1,860,000				4,225,000	3,451,000
	Total 270...274 - RP4	**9,385,469**	**10,919,088**	**19,275,000**	**2,800,000**	**3,800,000**	**4,247,750**	**27,000,000**	**32,860,000**				**100,901,838**	**112,967,287**
Location: 280...284 - RP5														
EM05001	Asset Management System	439,379	10,000										10,000	439,379
EM05014	RP5 Time Synchronization Sftwr	29,526												29,526
EN02038	Chino Creek Park	453,600	2,000,000	1,622,425									3,622,425	4,296,900
EN03029	RP5 Renewable Energy Efficiency	4,200,000	6,000,000	3,000,000									9,000,000	11,946,000
EN04033	RP5 Utility Water Pipeline	1,450	729,886										729,886	731,330
EN04038	RP5 Digester Expan/Modificatn	1,285,426	1,567,945										1,567,945	2,069,350
EN05021	RP5/CCW Chlorine Tank Covers						100,000	1,234,771					1,334,771	1,334,771
EN05052	RP5 Warehouse & Maintenance Fa				500,000	2,500,000	2,977,791						5,977,791	5,997,791
EN05056	RP-5 Expansion to 27 mgd				2,000,000	4,000,000			19,500,000	25,000,000	15,500,000		66,000,000	66,000,000
EN05060	RP5 Hot Water Loop Feas Study	50,000												115,500
EN95028	RP-5/RP-2 Replacement	200,000												79,922,934
OE05001	RP5 Chemical Mixing	111,689												111,689
PA06023	Forklift		23,762										23,762	23,762
PL03005	Complete Mix Digestion Technol	265,000	2,605,000										2,605,000	3,000,000
	Total 280...284 - RP5	**6,771,070**	**10,331,593**	**4,622,425**	**2,500,000**	**6,500,000**	**3,077,791**	**1,234,771**	**19,500,000**	**25,000,000**	**15,500,000**		**88,266,580**	**170,949,582**
Location: 285 - RP-5 Digester														
AA00547	RED Shower Trailer		34,007										34,007	34,007
EN06020	RP-5 Sys Fac Upg & Improvement		1,500,000	2,800,000	3,400,000								7,700,000	7,700,000

APPENDIX B
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	Total 285 - RP-5 Digester		**1,534,007**	**2,800,000**	**3,400,000**								**7,734,007**	**7,734,007**
Location:	**310...370 - Recycled Water**													
AA00522	CCWRF Sec.Flow Equalizati											100.000	100.000	100.000
AA00532	RP-1 Sec Flow Equalization Sys											1.000.000	1.000.000	17.000.000
AA00533	RP-5 Sec Flow Equalization Sy										500.000	6.000.000	6.500.000	6.500.000
	Total 310...370 - Recycled Water										**500,000**	**7,100,000**	**7,600,000**	**23,600,000**
Location:	**409 - RP-3 Basins**													
AA00550	RP-3/Declez Park				2.000.000								2.000.000	2.000.000
	Total 409 - RP-3 Basins				**2,000,000**								**2,000,000**	**2,000,000**
Location:	**806 - Other Maintenance Equipment**													
EM06001	Replace Vactor/Jetter #9017		323.250											323.250
	Total 806 - Other Maintenance Equipment		**323,250**											**323,250**
	Satellite Plants Total Fund: RC	37,697,137	75,741,090	56,015,691	26,450,208	29,754,752	23,991,436	34,497,870	2 000 000 52,360,000	7 000 000 25,315,500	21 000 000 17,500,462	13,941,890	355,568,899	491,570,513

APPENDIX C

PHASE 1 RECYCLED WATER GROUNDWATER RECHARGE PROJECT SUMMARY

Recycled Water Groundwater Recharge Project
Chino Basin Recharge Master Plan, Phase I

Need for Recharge Project: **Reduce dependence on expensive imported water supplies and provide a local drought-proof supply of new water for the Chino Basin**

- Statewide water shortages will continue in California as result of northern California Bay-Delta issues, Colorado River cutbacks and increased population. Imported water supplies from northern California are the most expensive source of water for the Chino Basin and are increasingly unreliable, especially during droughts.
- Additional reliable, local water supplies are needed in the Chino Basin to meet the future needs of our rapidly growing cities and to avoid future drought shortages.
- High quality recycled water, produced by IEUA's recycled water plants, is released to the Santa Ana River and has been used downstream for decades to recharge the Orange County Groundwater Basin.
- Chino Basin community leaders including the Chino Basin Watermaster, Cucamonga County Water District, Monte Vista Water District, Inland Empire Utilities Agency and the Cities of Chino, Chino Hills, Fontana, Ontario, Rancho Cucamonga, and Upland have developed an integrated water supply plan to meet the future needs of Chino Basin which includes use of high quality recycled water to recharge the Chino Groundwater Basin.
- The Chino Basin Recharge Project is needed to meet the requirements of the court approved Optimum Basin Management Plan and the Chino Basin Peace Agreement.
- The Governor's Water Recycled Task Force (2003) and the California Bay Delta Authority (2000) recommend that recycled water use be expanded to reduce reliance on imported water from the Delta and Colorado River.

Proposed Phase I Project: **Recharge up to 44,000 AF annually of stormwater, recycled water and imported water to implement the Chino Basin Recharge Master Plan and Optimum Basin Management Program**

- Improves 7 existing recharge basins and stormwater diversion facilities located in Ontario, Rancho Cucamonga and Fontana.
- Blends high quality stormwater, recycled water and imported water in the recharge basins, and stores excess water in normal/wet years.
- Recharges up to 20 percent recycled water, or about 8,000 AFY.
- Uses outstanding source control, multiple barrier approach for protecting water quality.
- $40 million capital investment, 50% funded through state Proposition 13 grants (SAWPA/SWRCB).
- Phase I project is scheduled to start in 2004, with full use of all 20 recharge basins at build out in ten years.

Recharge Facilities	Potential Basin Recharge Capacity (acre-feet/year)			Facilities Annual Recharge Capacity
	Storm Water	State Project Water	Recycled Water	
Banana Basin	800	3,600	800	5,200
Declez Basin	300	1,800	300	2,400
Etiwanda Conservation Ponds	1,100	5,800	1,100	8,000
Hickory Basin	900	4,600	900	6,400
Jurupa Basin	0	0	0	Storage Only
RP-3 Basin	1,700	8,600	1,700	12,000
Turner Basin 1	900	900	900	2,700
Turner Basin 3&4	1,800	3,400	1,800	7,000
Total	7,500	28,700	7,500	43,700

Recharge Project Participants:

- Chino Basin Watermaster
- San Bernardino County Flood Control District
- Chino Basin Water Conservation District
- Inland Empire Utilities Agency

Recharge Project Benefits:

- Blends high quality stormwater and recycled water which allows for more local and less expensive water supplies to recharge the basin and reduces the need for more expensive imported water.
- Phase I project will offset need for about 16,000 AF of imported water, saving about $4 million per year in imported water purchases.
- Chino Basin integrated capital facilities plan over next ten years will provide for the development of 95,000 AF of new local supplies, 100,000 AF of new storage, 33,000 AF of new dry year yield.
- Provides reliable "drought-proof" water supplies to meet future growth without any significant increase in water and wastewater rates.
- Enhances the capacity to recharge more imported water in wet years when this water is more plentiful and less expensive. Helps to offset losses from the Colorado River through conjunctive management of ground and surface water supplies.
- Is an essential element of the regional Chino Basin Optimum Basin Management Program, improving water quality and yield from the Chino Groundwater Basin.

Recharge Project is Consistent with the Following:

- Chino Basin Recharge Master Plan, Phase I Final Report (1998)
- Chino Basin Watermaster Optimum Basin Management Program (OBMP) and Peace Agreement (2000)
- IEUA Urban Water Management Plan (2000) and MWD Urban Water Management Plan (2000)
- Chino Basin Recycled Water Groundwater Recharge Projects Facilities Plan (2000)
- California Bay Delta Authority Record of Decision (2000)
- Chino Basin Watermaster OBMP Groundwater Recharge Master Plan (2001)
- IEUA Recycled Water System Feasibility Study (2002)
- IEUA Comprehensive Wastewater Facilities Master Plan (2002)
- Santa Ana Watershed Project Authority's (SAWPA) Integrated Water Management Plan (2002)
- U.S. Bureau of Reclamation's So. California Comprehensive Water Reclamation and Resources Plan(2003)
- California Recycled Water Task Force (2003)
- IEUA Title 22 Engineering Report for Phase I Recycled Water Groundwater Recharge Project (2003)
- IEUA and Orange County Water District Memorandum of Understanding for watershed protection and maximum use of recycled water for mutual benefit (2003)
- Approved by Chino Basin Watermaster Stakeholders (2003)

About the Chino Basin

- Largest groundwater basin in southern California
- Adjudicated in 1978 and managed through a court-appointed Chino Basin Watermaster
- Safe yield is 140,000 AFY which is pumped to meet municipal, industrial and agricultural needs.
- About 5,000,000 AF of unused storage capacity remains in the groundwater basin.

Inland Empire Utilities Agency (IEUA)

- IEUA provides wholesale water and wastewater service to the western portion of San Bernardino County (Chino, Ontario, Fontana, Chino Hills, Montclair, Rancho Cucamonga and Upland).
- The service area covers 242 square miles with current population estimated at 700,000
- Total annual water demands currently average 250,000 AFY.
- Approximately 25% of water supply is purchased imported water (SWP), 65% from groundwater, 7% from local stream flow and the remaining 3% is from recycled water.
- Current annual recycled water sales average 6,200 AF to over 150 customers.
- In July 2003, IEUA was honored by the Santa Ana Regional Water Quality Board for providing "a very high level of environmental, water quality and public health protection . . . to its service area."