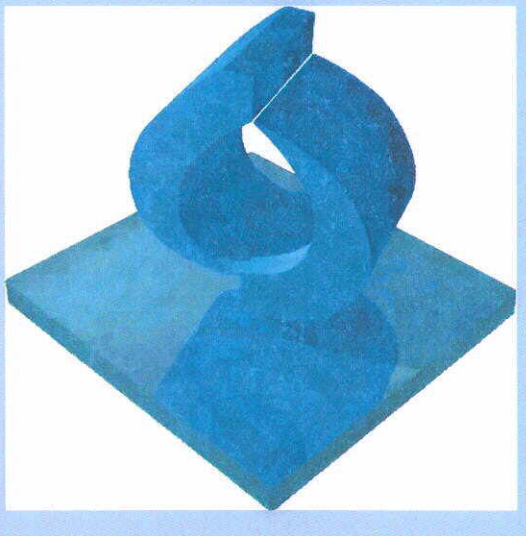
Inland Empire Utilities Agency

Ten-Year Capital Improvement Plan

Fiscal Period

2004/05 –2013/14

June 2004



INLAND EMPIRE UTILITIES AGENCY
TEN-YEAR CAPITAL IMPROVEMENT PLAN

FISCAL PERIOD 2004/05 through 2013/14

June 16, 2004

Inland Empire Utilities Agency

6075 Kimball Avenue

Chino, California 91710

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EXECUTIVE SUMMARY

IEUA

TEN-YEAR CAPITAL IMPROVEMENT PLAN

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 2013/14.

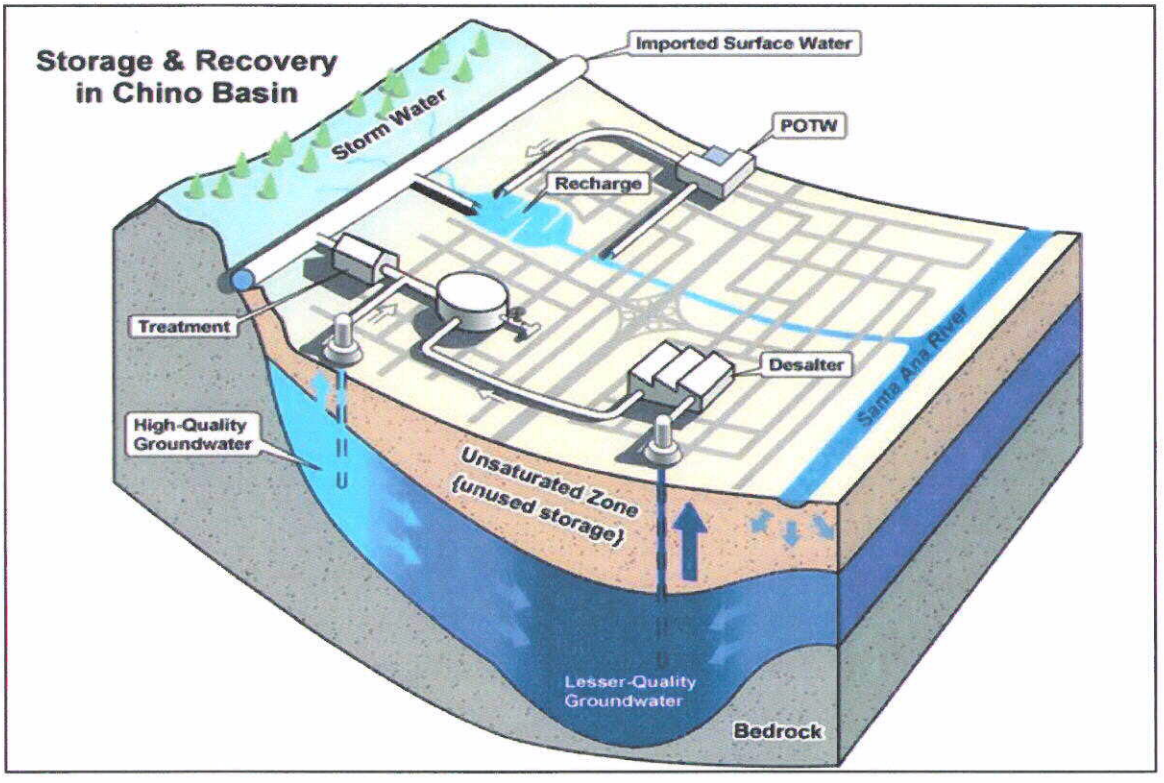
In August of 2002, the Regional Sewage Technical and Policy Committees recommended and the IEUA Board of Directors adopted a Wastewater Facilities Master Plan (WFMP) for ultimate growth (2050) in the service area. IEUA's goal for the Master Plan was to produce a single, comprehensive document that would 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 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).

An update to the WFMP will be prepared in 2005 that takes into consideration recent growth trends and projections. The primary objective of the 2005 Master Plan Update will be to improve utilization of existing facilities while expanding these facilities to meet the rapid growth in the IEUA service area. The WFMP will be updated to incorporate the Urban Water Management Plan, with emphasis on using water recycling, groundwater storage and water conservation to increase local water supplies to meet urban water needs.

One of the major related planning efforts is the Chino Basin Watermaster's Optimum Basin Management Program (OBMP). The OBMP addresses groundwater quality problems and identifies groundwater management opportunities to be pursued for the benefit of the Chino Basin resources. The purpose of the OBMP was to develop a water quality- and quantity-based management plan that would allow continued reliance on groundwater for beneficial uses within the basin, while minimizing demand for imported water, and to encourage the beneficial use of the large available storage space in the Chino and Cucamonga Basin aquifer system.

One of the centerpieces of the OBMP is the IEUA and Watermaster joint recharge program partnership described in the OBMP Recharge Master Plan, Phase II Report (August, 2001). It is a comprehensive plan to increase artificial groundwater recharge within Chino Basin using stormwater, recycled water and imported water. Through increased recharge capacity of the Basin, greater quantities of water can be stored and made available during imported water supply shortages. The figure below illustrates how the recharge program fits into the overall plan for Chino Basin groundwater management as outlined in the Watermaster's OBMP and the 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 program of construction projects to improve basin recharge facilities. IEUA was

selected to serve as the lead Agency for implementation of this cooperative program (engineering project management, design, and construction).

The Groundwater Recharge Program includes proposed improvements to 16 recharge basin sites and construction of two new sites. 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. When fully developed in the next few years, the total recharge capacity of the groundwater recharge sites will be increased by a net 120,000 to 170,000 acre-ft per year of additional, new capacity to replenish the groundwater basin.

To finance the $40 million recharge basin improvement and construction 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 support the recharge program's administrative expenses. Cooperating agencies are providing in-kind services.

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 save $6 million to $9 million per year in imported water costs. 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.

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).

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.

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. 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 of the IEUA service area.

The Feasibility Study 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. 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.

IEUA's Regional Recycled Water Program implements the recommendations of the Feasibility Study. 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. The regional recycled water facilities have been planned in 29 separate projects of pipelines, pump stations and reservoirs. These projects have been grouped into five program phases scheduled in order of priority from one to five. 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 sources of 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.

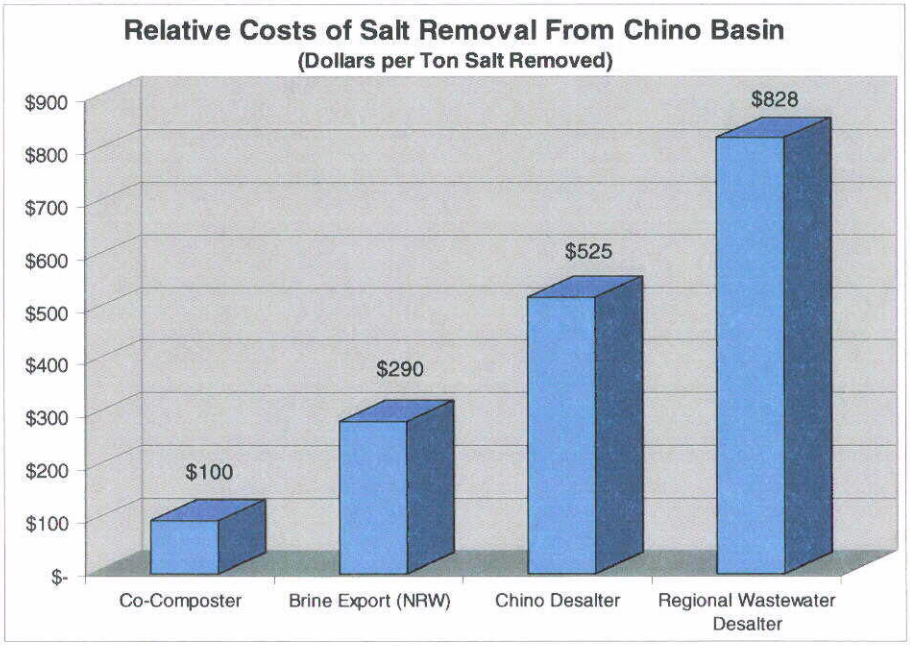
Implementation of the Regional Recycled Water Program will have an estimated cost of $125 million to be funded by a combination of state and federal grants, state low-interest loans, Metropolitan Water District Local Resources Program rebates, and transfers from the Regional Capital Improvement Fund (RC Fund). Construction will take place over a ten-year period, depending on availability of grant funding.

As discussed above, IEUA and its contracting agencies are implementing a regional recycled water distribution system to serve recycled water for non-potable reuse and groundwater recharge

and reduce the need for expensive imported water supplies. 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 comply with effluent limitations for TDS in its wastewater discharge permits.

IEUA owns and operates a non-reclaimable wastewater (NRW) system that is physically separate from the Regional Domestic Sewage System and provides a means for exporting 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 sidestreams from the IEUA's water recycling treatment facilities and some domestic wastewater from unsewered areas. The NRW system currently exports approximately 29,000 tons per year of salt to the ocean.

A 2000 study by Parsons Engineering Science, "Future Services Study for the Non-reclaimable Wastewater System," evaluated the long-term issues and future funding needs for operating and maintaining the NRW system in the most cost-effective manner. It found that the most cost-effective strategies for utilizing the NRW system were: (1) diverting more high-salinity wastewater flow from the Regional Sewage system to the NRW system, thereby reducing the need for expansion of the Regional system; and (2) melding the user rates and charges for the two systems ("regionalization") in order to provide economic incentives for the export of brine wastes through the NRW system. The study confirmed that utilization of the NRW system minimizes the Agency's treatment costs for salt, as illustrated in the following figure.



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 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 total dissolved solids (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 IEUA's Regional Technical and Policy Committees, the Chino Basin Watermaster, and the Regional Board.

Some of the key elements of the NRW Action Plan which are incorporated into this TYCIP are:

- Water Softener Strategy—Develop 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.

- Buyback Agreement with Los Angeles County Sanitation Districts—Reduce unused IEUA-owned capacity in the NRW by 3 MGD, lowering payments to LACSD by 23 percent ($500,000 savings in FY03/04 and approximately $9 million through 2018). The savings will be passed on to NRW customers through more favorable rates and charges, to encourage the use of the NRW system for salt export.

- 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 Metropolitan Water District (MWD). Part of this effort will be an evaluation of a rate structure that encourages brine discharge from the ion exchange plants to the NRW system.

- Industry "Pass Through" Rates—IEUA is preparing a rate design study and budget impact analysis for existing and new industrial customers. The goal is to "pass through" to industrial customers the costs that the LACSD and SAWPA charge to the IEUA for using their non-reclaimable wastewater systems, with addition of only minimal charges to cover the IEUA administrative expenses.

- Regional Sewage Program and NRW Program Integration—Continue with phased integration of aspects of the Regional Sewage and NRW capital and operating funds, such as through RC Fund purchase of remaining unallocated capacity in the NRW system. The purchase of unallocated capacity by the RC Fund would result in payment of the annual "4R" repair and replacement costs for that portion of the capacity by the RC Fund, thus reducing the economic burden on other users of the NRW system.

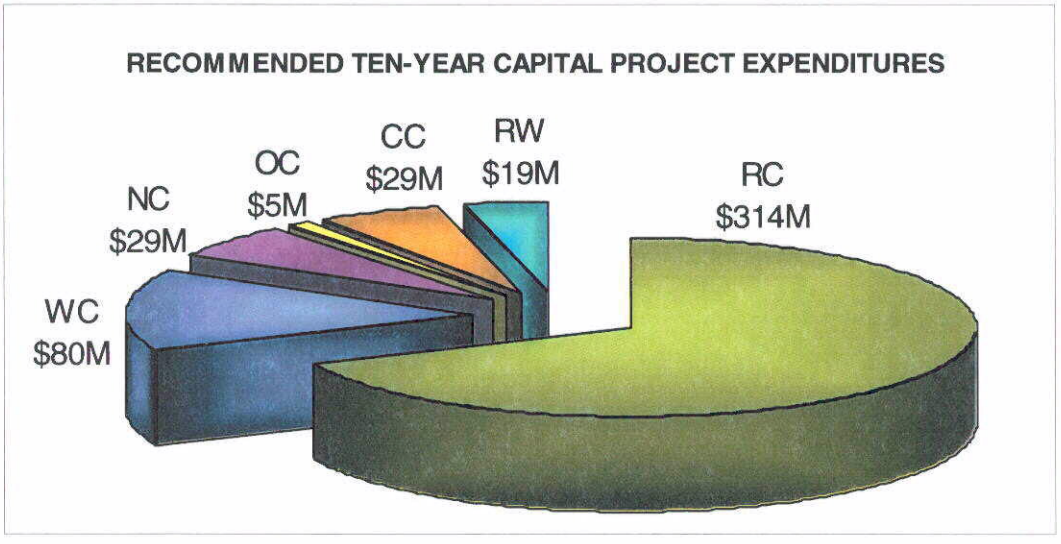
- Chino Basin Desalter "SARI" Capacity Alternatives—Secure treatment capacity in the portion of the NRW system known as SARI to handle the brine waste from the Chino Basin I Desalter Expansion and the future Chino Basin II Desalter. The IEUA staff is coordinating with the Chino Basin Desalter Authority, Jurupa Community Services District, Western Municipal Water District and SAWPA regarding the sale of existing IEUA capacity to provide capacity for the desalters. The revenue from the sale is expected to be $14.2 million. Approximately $4.7 million from the sale is expected to be deposited into IEUA's Regional Capital Improvement Fund (RC Fund) and $9.5 million is expected to be deposited into the NRW Capital Improvement Fund (NC Fund).

- Sale of Temporary SARI Capacity to City of Chino/Lewis Operating Company—Utilize the SARI capacity which will become available in 2008 when the California Institute for Women stops discharging to the SARI and starts discharging to IEUA's Regional Plant No. 5. There is a draft agreement for a 4-year temporary sale of capacity to the City of Chino and Lewis Operating Company. This will allow development of homes to proceed in an unsewered area of the City of Chino while a regional interceptor sewer is constructed to serve the area.

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

- Regional Domestic Sewage System Capital Improvement Fund (RC Fund)
- Recycled Water Capital Improvement Fund (WC Fund)
- Recharge Water Capital Improvement Fund (RW Fund)
- Non-reclaimable Waste System Capital Improvement Fund (NC Fund)
- Organics Management Capital Improvement Fund (OC Fund)
- Co-Composting Capital Improvement Fund (CC Fund)

By far the largest fund/program area, in terms of costs, is the Regional Domestic Sewage Program, as illustrated in the figure below. This year's TYCIP recommends $314 million in capital project expenditures for the RC Program over the next ten years.



The projected ten-year RC Program capital project expenditures are higher than in last year's (FY 2002/03) TYCIP by approximately $100 million dollars. The increase is generally attributable to the higher growth forecast for the Agency's service area and the need to accelerate some expansion projects. 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 within ten years. 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 southwestern Chino and southern Ontario and approval of development plans in those areas will create more wastewater in the RP-5 service area.

Treatment capacity expansions will be needed to accommodate the forecasted flows. The planned expansions include:

- Expansion of RP-4 from 7 mgd to 14 mgd occurring in 2006/2007; and
- Expansion of RP-5 from 15 mgd to 27 mgd occurring in 2012.

The planned expansions, diversions, and bypasses will allow the Agency to achieve the WFMP goals of: (1) increasing reuse potential in the upper Northern 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 Northern and Southern Service Areas. The TYCIP results in the capacity utilization at RP-4 being higher than at the other plants. 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 RP-4 Trunk Sewer and the San Bernardino Avenue Pump Station and Force Main are part of this plan.

Completion of the eastern RP-1/RP-5 bypass pipeline by December 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 (average daily flow) of capacity that can be used to bypass flow from the Northern Service Area to the Southern Service Area.

In the Southern 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. This gave the Southern Service Area a net 10-mgd increase in treatment capacity. Nevertheless, current growth projections indicate that an expansion of RP-5 may be needed by 2012. 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.

The Agency's long-range plans for treating and utilizing biosolids as well as dealing with the problems of disposal of manure and green waste material collected within its service area were addressed in the Chino Basin Organics Management Business Plan, dated May 31, 2001. 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 IEUA Board of Directors 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 OBMP. The Business Plan included the implementation of two key initiatives. The first is a comprehensive renewable energy reliability program, which has resulted in the development of two dairy manure digestion facilities to generate methane gas. 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: 11,751 tons of total dissolved solids (salt), 67 tons of nitrate-nitrogen, and 1,025 tons of ammonia.

In partnership with the County Sanitation Districts of Los Angeles County, IEUA is constructing a new biosolids composting facility which will replace the existing co-composting facility by late 2005/early 2006. While it is anticipated that the majority of biosolids generated at IEUA's water recycling facilities will be made into compost at the new Inland Empire Regional Composting Facility (IERCF), the Agency will continue evaluating several options that wil provide a diverse, yet cost-effective, long-term, sustainable biosolids recycling portfolio. To finance the construction of the IERCF, IEUA issued $12.9-million in bonds in FY 2002/03. Inter-fund transfers from the RC Fund to the CC Fund provide the remaining capital contributions for the IERCF. Another major revenue source for the CC Fund will be the payments from the sale of the existing IEUA Co-Composting site property.

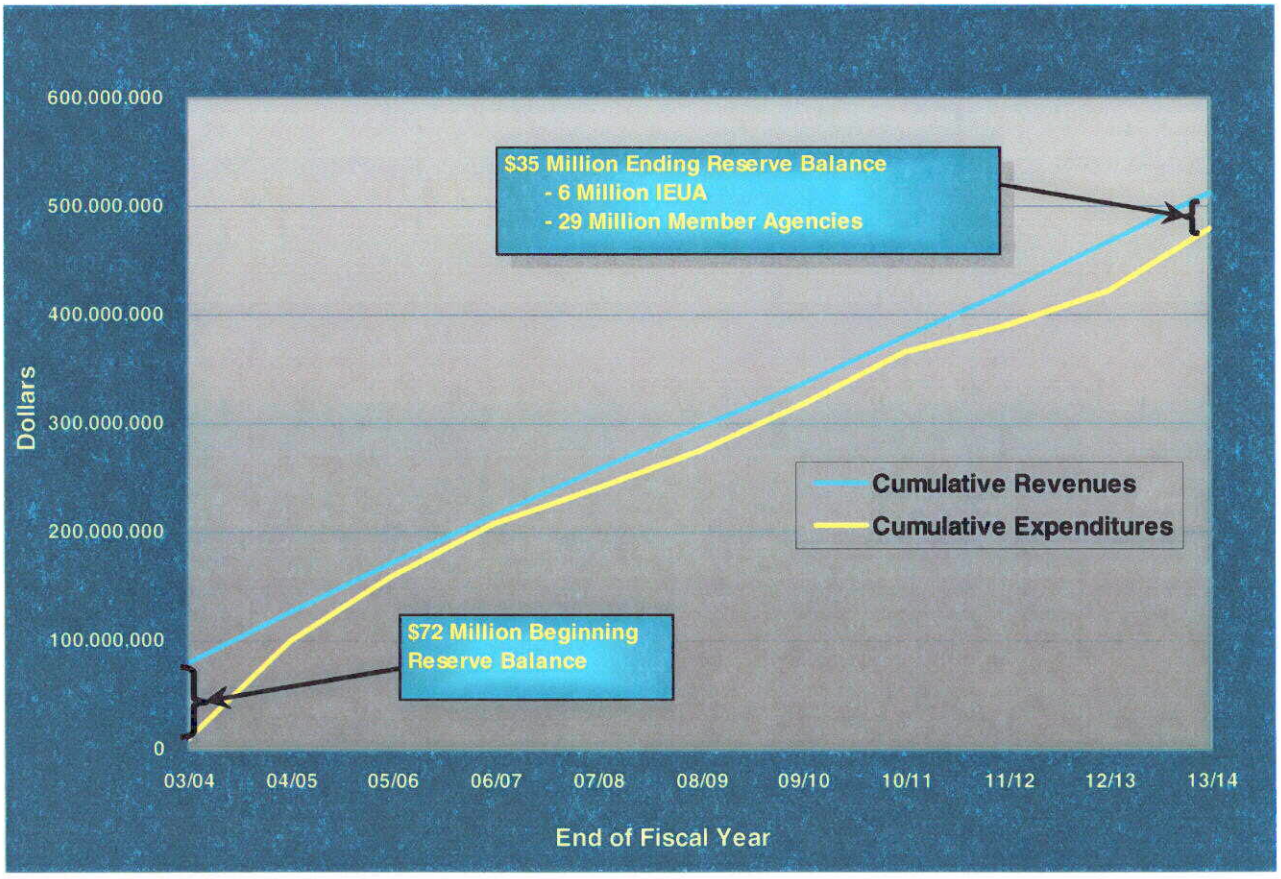
The recommended financing for this TYCIP is from several different sources. No additional debt service issues (revenue bonds) are planned or needed to finance the TYCIP. In terms of revenues and revenue sources, the RC Fund is the largest capital fund. The recommended financing for the RC program is provided by property taxes, capital capacity reimbursement payments (connection fees), grants, and interest earned. Many of the other funds rely heavily on grants and state loans. The RC Fund makes capital contributions to several of the other funds to cover shortfalls in those funds. The major transfers are to the Recycled Water (RC), Recharge Water (RW), Co-Composting (CC), Organics Management (OC), and Internal Services (GG) Funds.

The key sources of revenue for the TYCIP are property taxes and supplemental capital contributions. Supplemental capital contributions come from calls to Member Agencies for Capital Capacity Reimbursement Payments, 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 6,250 per year for the first four years,

followed by 6,000 for the fourth year, and 4,500 per year for the last six years was assumed for the revenue projections. (Actual growth projections are even higher, as discussed in Chapter 2 of the TYCIP.)

It has been assumed that the Capital Capacity Reimbursement Payment will be increased at the rate of inflation in construction costs, estimated at an average of 3% per year. Becoming effective July 1, 2004, the Capital Capacity Reimbursement Payment is $3,905 per EDU. It was raised from $3,840 per EDU by the IEUA Board of Directors in March of 2004 to match the increase in the construction cost index for the Los Angeles region noted over the previous year.

The recommended financing for the Regional Program is adequate to fund the Ten-Year Capital Improvement Plan without additional borrowing. 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 approximately $72 million at the end of Fiscal Year 2003/04, and 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 approximately $35 million.



CHAPTER 1

IEUA

TEN-YEAR CAPITAL IMPROVEMENT PLAN

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 sewer retail agencies.

1.2 IEUA's MISSION

In coordination with its member 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 member 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, 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.

The IEUA has historically divided its service area for wastewater conveyance and treatment into two parts: the Northern Service Area (NSA) and the Southern Service Area (SSA). The dividing line segregating the two service areas is generally the Pomona (60) Freeway. Figure 1-1 depicts the IEUA service area and each contracting member agency's sphere of influence.

1.3 WASTEWATER FACILITIES MASTER PLANNING

In August of 2002, the Regional Sewage 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.

An update to the WFMP will be prepared in 2005 that takes into consideration recent growth trends and projections.

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 Organics Management Strategy Business Plan, constituted 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.

FIGURE 1-1
CONTRACTING MEMBER AGENCIES

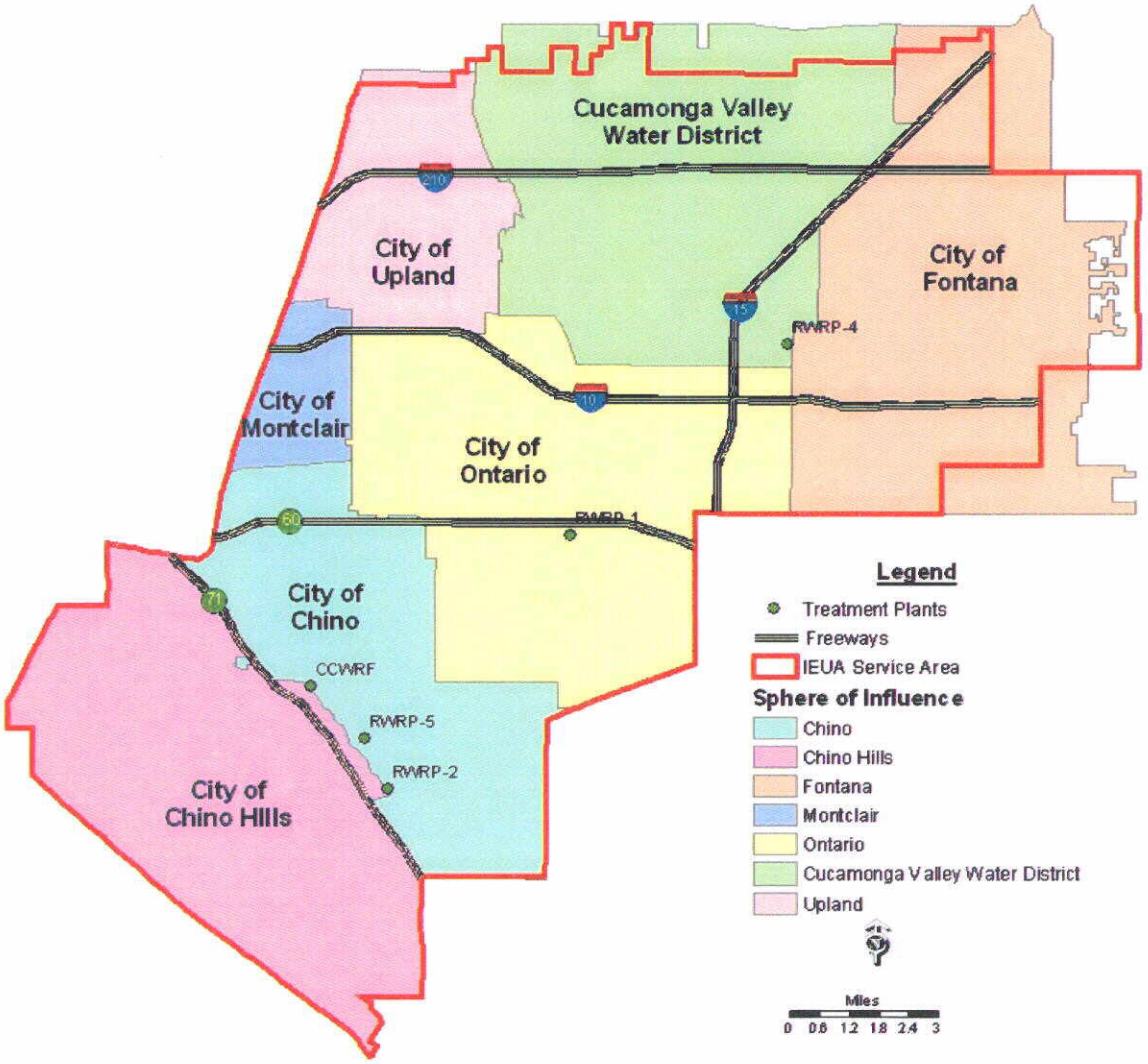
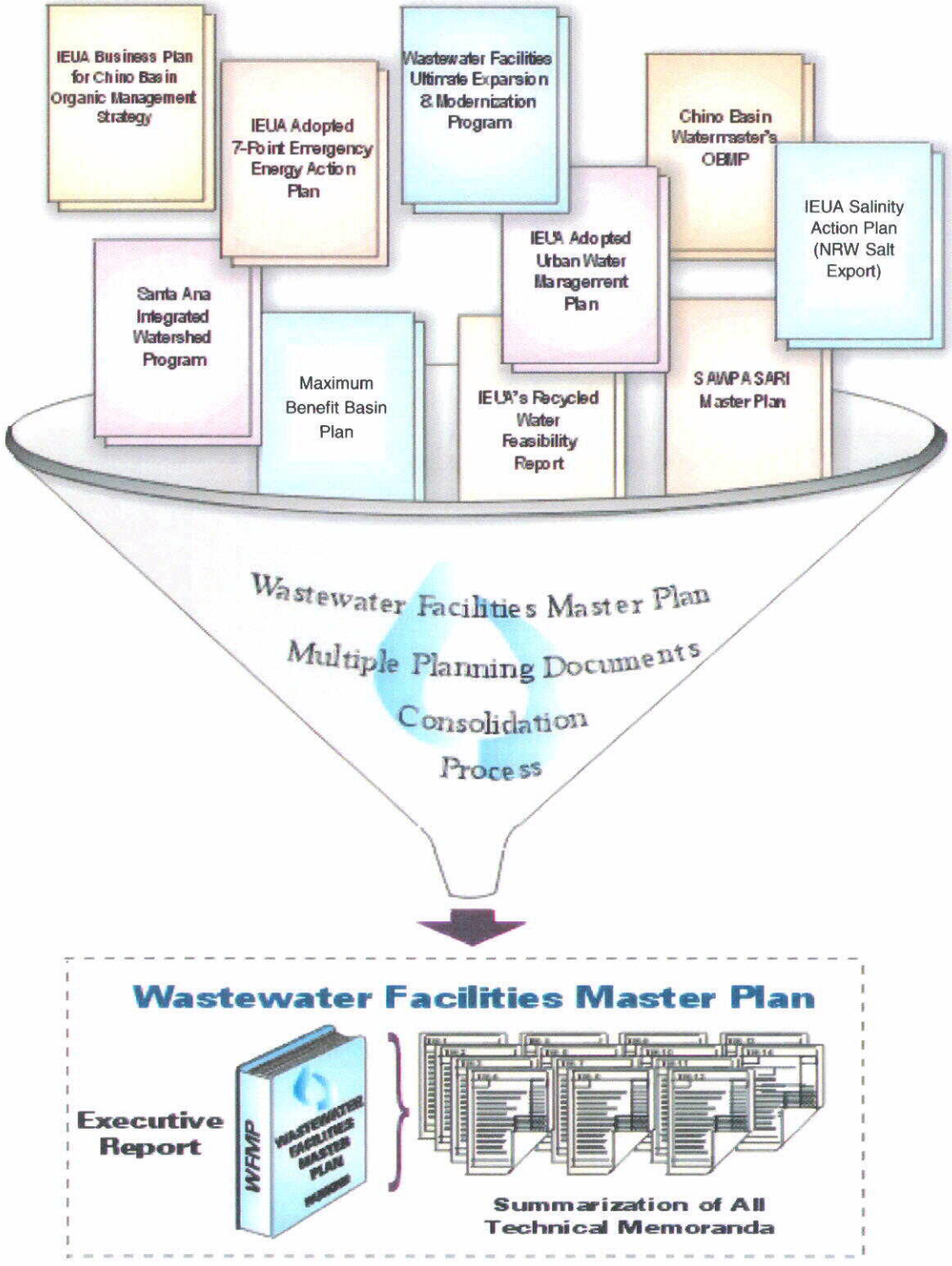


FIGURE 1-2

WFMP—CONSOLIDATION OF RELEVANT IEUA PLANNING DOCUMENTS



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. It includes projects designed to expand and interconnect the IEUA's recycled water distribution lines into a fully-integrated system. It will also create an expanded and revitalized network of groundwater recharge basins which will conserve stormwater, recycled water, and imported water in the underground Chino Basin. And 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. 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 of the IEUA service area.

IEUA's adopted Recyled 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. 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 overproduction replenishment needs.)

The Feasibility Study recommended interconnecting all of the IEUA's regional treatment plants in a looped distribution system. This will improve system reliability and provide flexibility in meeting the area's recycled water demands. The looped system will allow more customers to be served and provide the flexibility to release surplus recycled water to spreading basins throughout the basin for recharge.

A five-phase, approximately $120-million program is contemplated by the IEUA over the next ten years for the construction of a recycled water distribution system. IEUA is seeking outside funding for the program from the State of California (Proposition 13) and the U.S. Bureau of

reclamation. IEUA has a local projects agreement with the MWD for 13,500 AFY of water recycling.

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 the Chino Basin Watermaster, Chino Basin Water Conservation District, San Bernardino County Flood Control District, and the IEUA. The IEUA was selected to serve as the lead Agency for implementation of this cooperative program (project management, engineering, design, and construction) and to provide the debt financing for the capital program, including applying for Proposition 13 grants through the Santa Ana Watershed Project Authority (SAWPA). The program includes proposed improvements to 18 recharge basin sites, including two new sites. The improvements will maximize the recharge capacity of those facilities, protecting and increasing the yield of the Chino Basin, increasing the amount of recycled water that can be recharged, and improving groundwater quality. When fully developed in the next few years, the total recharge capacity of the groundwater recharge sites will be increased by a net 120,000 to 170,000 acre ft per year of additional, new capacity.

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 (AF) 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 the IEUA and

the Chino Basin Watermaster. The 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 the IEUA participated since 1995/96. The Task Force included the Regional Board and 22 water supply and wastewater agencies throughout the region. Cooordinated 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, the 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).

If the IEUA and the 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 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.

Some of the key facility recommendations included: (1) Increase digester gas production at RP-1 and the RP-2/RP-5 complex; (2) Construct digestion and solids handling facilities at RP-4; and (3) Develop enclosed composting facilities at or near RP-1, RP-4 and/or RP-5. In addition, the

Business Plan included a recommended group of demonstration projects to be implemented within two years to provide some immediate benefits and to develop cost and design criteria for larger facilities, which might follow within 5 to 10 years. 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 the IEUA meet the goals of the OBMP and the Maximum Benefit Basin Plan objectives. Reduced wastewater salinity will also help the IEUA to comply with effluent limitations for TDS in its wastewater discharge permits. The 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.

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 is to implement strategies to reduce total dissolved solids (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 IEUA expects to achieve substantial avoided costs and valuable benefits for the region as a result of implementation of the NRW Action Plan. The Action Plan will do the following:

- Lower the NRW system cost charged by the County Sanitation Districts of Los Angeles County by 23 percent by reducing the capital payments on 3 mgd of unused capacity.
- Establish a lower rate structure that will encourage industries to discharge brine wastes to the NRW system instead of the sewer system. This will enable the 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.
- Avoid the cost of imported water that would be necessary if the TDS levels of recycled water were too high to use for groundwater recharge.
- Allow IEUA to divert approximately 6 million gallons per day of wastewater away from the regional domestic sewage system, thus delaying the need for treatment plant expansions.
- Facilitates the construction of ion exchange facilities and desalters in the service area that will clean up the groundwater basin so it can be part of a major conjunctive use program ("MWD Dry Year Yield Program") that will further decrease the amount of imported water brought into the area.

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. This Board policy was adopted in June 2000 with the acceptance of the Parsons Engineering Science report, "Future Services Study for the Non-reclaimable Wastewater System." The action plan includes "regionalization" of the NRW program through integrating aspects of the Regional Sewage and NRW capital and operating funds. The Agency's FY04/05 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 7.**

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 Member 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 Fiscal Year 2004/05 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.

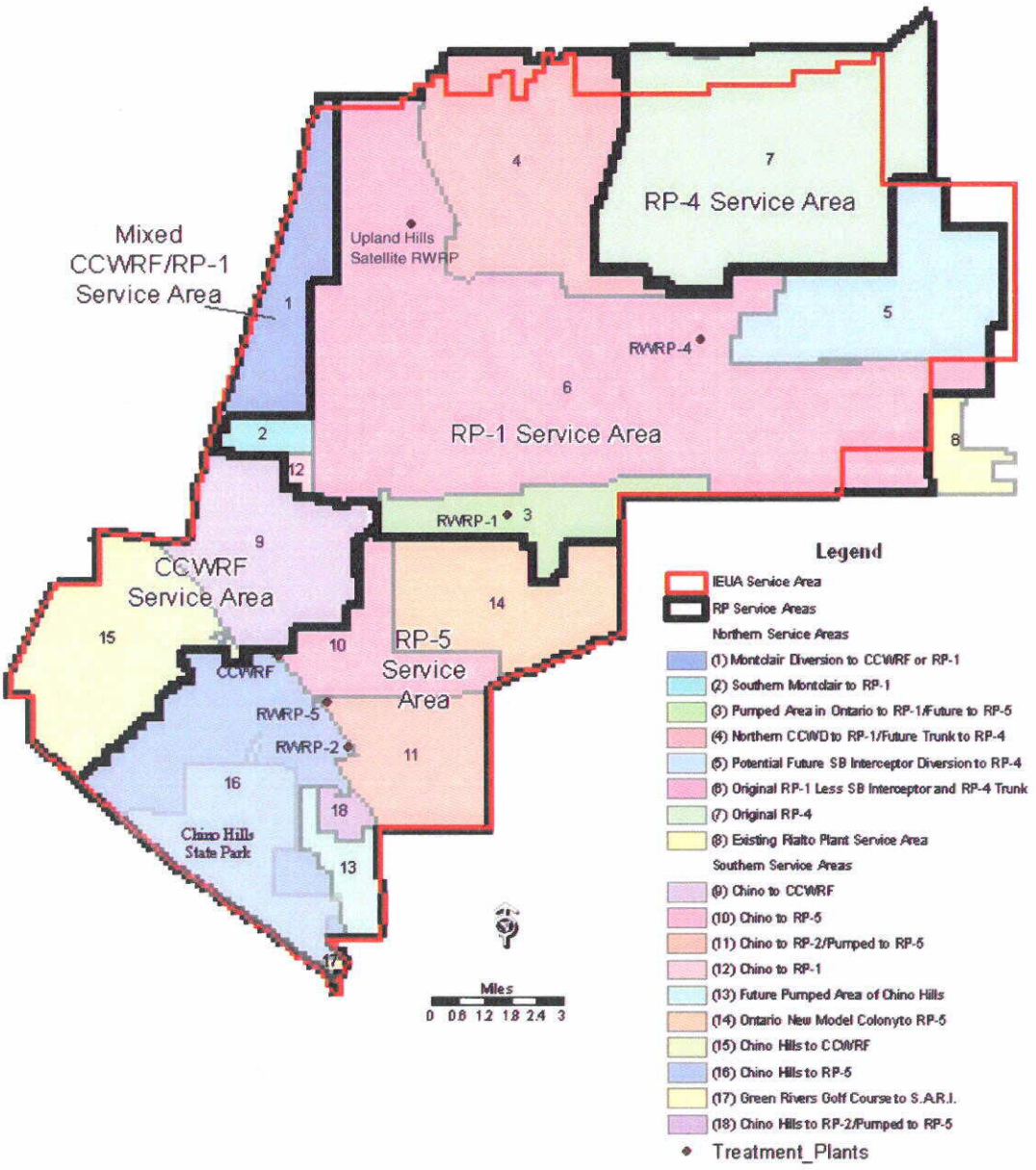
1.7 MAJOR FACILITIES

1.7.1 Water Recycling Plants

Figure 1-3 illustrates the service area boundaries for IEUA's water recycling plants. The Agency's total service area is divided into two interrelated areas. The Northern Service Area (NSA) provides wastewater treatment and water recycling at two large regional facilities – Regional Plant No. 1 (RP-1) and Regional Plant No. 4 (RP-4), with RP-4 having the ability to bypass flow to RP-1. In addition, within the NSA, IEUA recently acquired a small satellite water recycling facility which produces recycled water used on the Upland Hills Golf Course. IEUA has been evaluating sites in the NSA for possible future location of additional satellite water recycling facilities.

The Southern Service Area (SSA) provides wastewater treatment and water recycling at two regional facilities – Regional Plant No. 5 (RP-5) and Carbon Canyon Wastewater Reclamation Facility (CCWRF), with CCWRF having the ability to bypass flow to RP-5. RP-5 began treating and discharging in March of 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.

FIGURE 1-3
REGIONAL PLANT SERVICE AREA BOUNDARIES



1.7.2 Regional Interceptor System

Diverting or bypassing flow from one service area to another is possible through the use of the regional trunk sewers. Figure 1-4 illustrates the existing regional trunk sewer system and tributary areas. The Northern Service Area has the ability to bypass domestic wastewater flows from RP-4 to RP-1 and also to the Southern Service Area and/or the Non-Reclaimable Waste (NRW) System, while the Southern Service Area has the ability to divert flows 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 million gallons per day 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.

- 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.

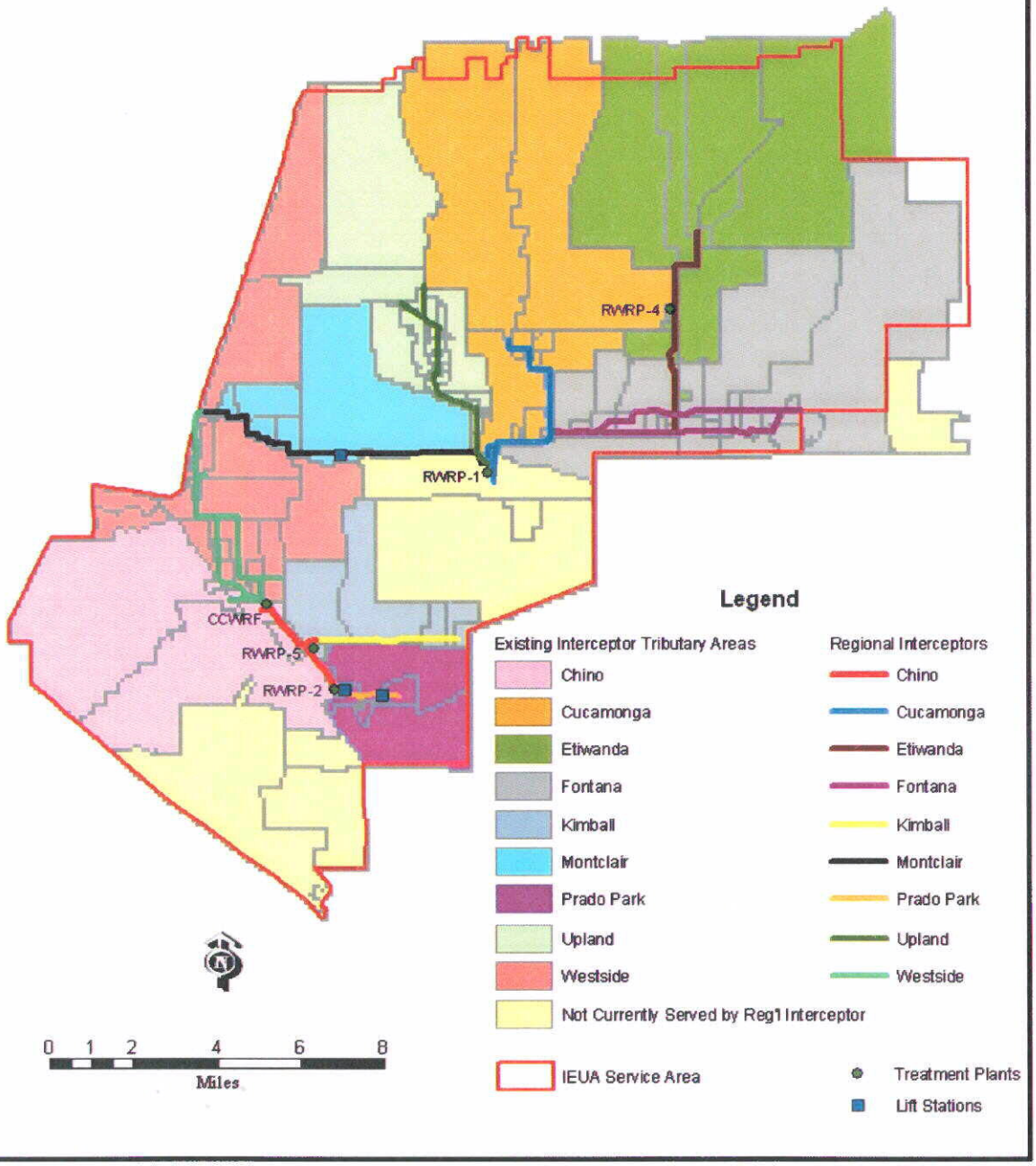
As shown on **Figure 4**, IEUA has three sewage lift stations:

- 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-2.

- A new lift station was constructed at RP-2 in FY03/04 to pump the flow from the southeastern portions of the cities of Chino and Chino Hills to RP-5.

FIGURE 1-4
EXISTING REGIONAL TRUNK SEWER SYSTEM AND TRIBUTARY AREAS



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. Montclair Diversion flows have been assigned to CCWRF in the unadjusted forecasts. Exhibit II shows the projections for just the Northern Service Area (NSA) compared to planned total NSA treatment capacity. Exhibit III shows the same information for the Southern Service Area (SSA) based primarily on equivalent dwelling unit (EDU) growth projections that were provided by IEUA's wastewater Contracting Agencies between September and December of 2003. 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 system flows 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 6,515 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 (Amended October 19, 1994). The anticipated flow increases within the system are summarized in Table 2-1 ("Regional System Flow and Capacity Utilization Summary").

A 30-percent increase in total system flow is expected over the course of the next ten years. Last year's growth forecast projected only a 24-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 southwestern 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 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 77 to 79 percent. The planned expansions include:

- Expansion of RP-4 from 7 mgd to 14 mgd occurring in FY 2006/07; and
- Expansion of RP-5 from 15 mgd to 27 mgd occurring in FY 2012/13.

The expansions at RP-4 and RP-5 will provide sufficient capacity to treat the forecasted total system flow of 76.3 mgd in FY 2013/14.

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

Forecasted Average Flow for Fiscal Year (MGD)								
	FY 2003/2004 Forecast				FY 2013/2014 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)
Northern Service Area								
RP-1	38.8	38.8	44.0	88%	45.4	36.3	44.0	83%
RP-4	5.3	5.3	7.0	91%	10.4	13.7	14.0	98%
Subtotal	44.1	44.1	51.0	86%	55.8	50.0	58.0	86%
Southern Service Area								
CCWRF[1]	10.3	8.7	10.2	85%	11.0	11.0	11.4	96%
RP-2/RP-5	4.2	5.8	15.0	39%	9.5	15.3	27.0	57%
Subtotal	14.5	14.5	25.2	58%	20.5	26.3	38.4	68%
Total	58.6	58.6	76.2	77%	76.3	76.3	96.4	79%

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

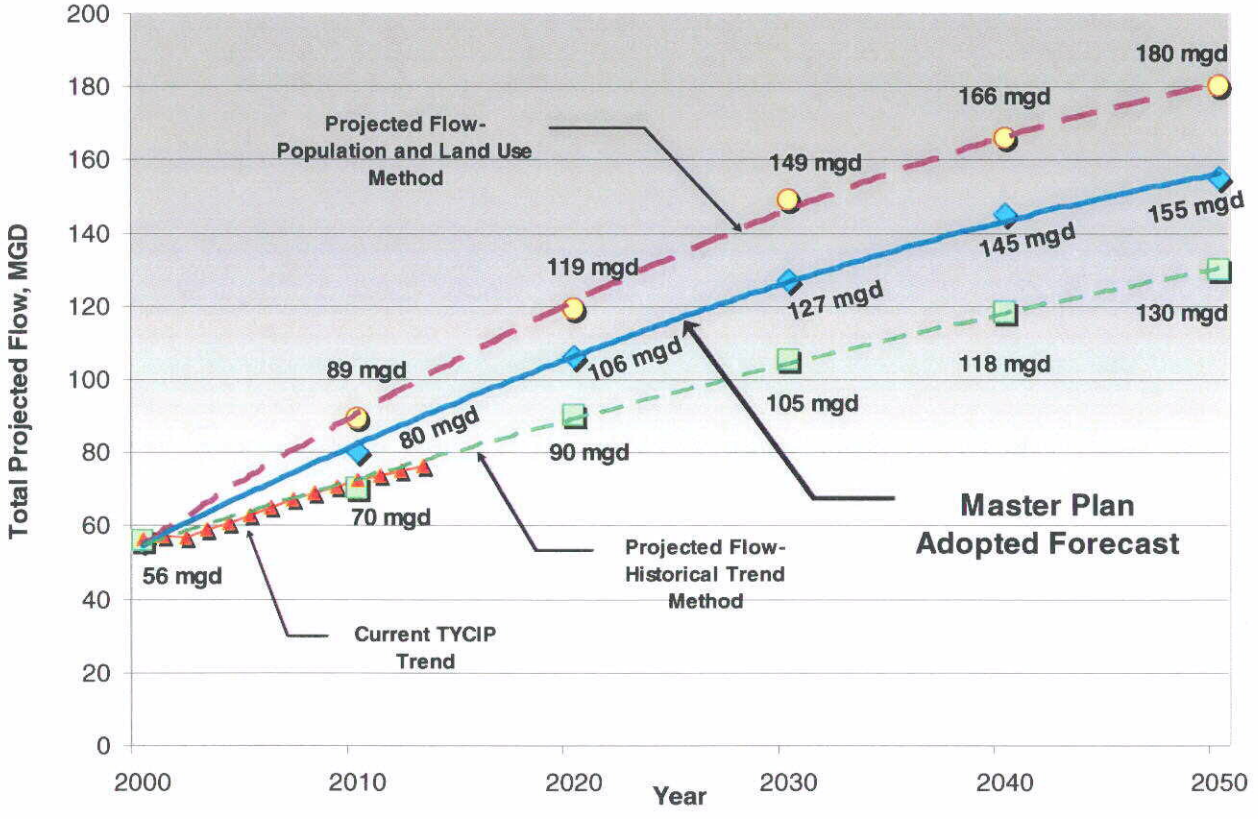
This Ten-Year Program results in the capacity utilization at RP-4 being higher than at the other plants. This is partly due to the planned construction of the San Bernardino Interceptor and Pump Station to divert flow from the current RP-1 service area to RP-4. The Ten-Year Program allows the Agency to achieve the twin goals of: (1) increasing reuse potential in the upper Northern 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 Northern Service Area and the Southern Service Area.

2.2 *FIFTY-YEAR FLOW PROJECTION*

As indicated in Figure 2-1 ("Regional System 50-Year Flow Projections"), wastewater flows have been projected to reach somewhere between a low of 130 mgd to a high of 180 mgd by the year 2050. This projection was developed as part of the comprehensive Wastewater Facilities Master Plan that was adopted in August of 2002. The Master Plan presented 50-year growth projections based on two different methods – the Historical Trend Method and the Population and Land Use Method. In Figure 2-1, the lower curve is based on the "Historical Trend Method" and the higher curve is based on the "Population and Land Use Method." In order to provide a reasonably

FIGURE 2-1
REGIONAL SYSTEM 50-YEAR FLOW PROJECTIONS



conservative analysis of possible needs for future expansion, the adopted 50-year forecast in the Master Plan is intermediate between the Historical Trend Method curve and the Population and Land Use Method curve. In comparison, the Contracting Agencies' growth forecasts for the next ten years correspond closely to the Historical Trend Method curve (see Exhibit VIII).

3.0 REGIONAL SEWAGE SYSTEM CAPITAL IMPROVEMENT PROGRAM SUMMARY

3.1 OVERVIEW

The capital improvements planned for the Regional Sewage System implement 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 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 2006/07.
- Expand RP-5 liquids treatment capacity from 15 to 27 mgd—needed in FY 2011/12 based upon current growth trends.

In the Northern Service Area, following the recommendations of the WFMP, the Agency plans to expand RP-4 first to facilitate recycled water use at higher elevations, and to wait to expand RP-1 until beyond the current ten-year planning window. 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 RP-4 Trunk Sewer and the San Bernardino Avenue Pump Station and Force Main are part of this plan.

Completion of the eastern RP-1/RP-5 bypass pipeline by December 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 (average daily flow) of capacity that can be used to bypass flow from the Northern Service Area to the Southern Service Area.

In the Southern 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. This gave the Southern Service Area a net 10-mgd increase in treatment capacity. Nevertheless, current growth projections indicate that an expansion of RP-5 may be needed by 2012. 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 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 upgrade projects to reduce nitrogen at older facilities. When new or expanded facilities are constructed, the basis of design includes the anticipated lower nitrogen limits.

3.2 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 0.7 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 Northern 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 December 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 3.8 mgd as the City of Ontario phases out the use of lift stations that now pump wastewater to RP-1. It is expected that sewage 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 FY06/07. By the end of the ten-year period, two more lift stations could be eliminated. In addition, in FY06/07, 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 3.3 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," is scheduled to be designed and constructed between FY06/07 and FY09/10. The project will increase nitrogen removal while maintaining or increasing plant capacity. The TYCIP also includes some smaller aeration capacity and sidestream treatment projects, including: "RP-1 Blower Upgrade" and "RP-1 Belt Press Filtrate Treatment System," which are both scheduled to be completed in FY12/13. The filtrate treatment system 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 which will provide comprehensive odor control in phases. The Phase I project (construction began in FY03/04) includes most of the solids handling areas of the plant. Phase II (construction to begin in FY04/05) includes the plant headworks, grit and screenings area, rectangular primary clarifiers, and dissolved air flotation thickeners. A later phase (FY10/11) may address the circular primary clarifiers, if needed. Finally, the "RP-1 Odor Control—Equalization Project" will address the primary effluent equalization lagoons. The equalization project will not begin until FY12/13, 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 are also planned.

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

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	Fiscal Year 2009/10	$31.1
Upland Interceptor Relief Sewer—Phase II	Fiscal Year 2007/08	$14.6
RP-1 Odor Control—Equalization	Fiscal Year 2014/15	$13.4
RP-1 Solids, Digester, and Gas System Improvements	Fiscal Year 2005/06 thru FY 2008/09	$13.1
RP-1 Odor Control—Phase I and II	FY 2005/06 (Ph I) FY 2012/13 (Ph II)	$6.5
RP-1 Modernization	Fiscal Year 2010/11	$4.3
RP-1 Belt Press Filtrate Treatment	Fiscal Year 2012/13	$3.8
Total—Major RP-1 Projects		***$86.8***
Total—All RP-1 Projects		***$100.4***

This Ten-Year Program is similar to last year's program for the RP-1 Service Area, with a few exceptions. One of the major differences this year was the inclusion of a new, $17-million (total budget) project to eliminate odors from the primary effluent equalization basins during dry weather by either covering them or adding additional secondary capacity so they are not needed. This project and its cost were identified in the WFMP and it is part of the overall RP-1 modernization program, which also includes landscaping and architectural improvements. The other major cost increase for the RP-1 service area was the inclusion of $15 million for the Upland Interceptor Relief Sewer-Phase II. This project was also identified in the WFMP, but the estimated cost was unknown until an assessment of the sewer line was completed in the last year.

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 FY06/07 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.

Prior to expansion of RP-4, liquids treatment system improvements are planned to improve energy efficiency and water quality. The "RP-4 Energy Load Reduction Facilities" project is designed to reduce energy requirements for the aeration system by installing fine-bubble diffusers. It may also reduce ammonia levels in recycled water, which improves the product for reuse in cooling systems. The upgrade project is expected to be completed in FY04/05.

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.

This Ten-Year Plan also includes commencement of design of the RP-4 Trunk Sewer, with completion of the Trunk Sewer occurring outside the ten-year window. The trunk sewer will allow more wastewater flow to be diverted to RP-4 from areas now tributary to RP-1. The goal is to maximize water recycling in the northern service area. The RP-4 Trunk Sewer will be located in the Cucamonga Valley Water District (CVWD) service area.

The adjusted RP-4 flow forecast in Exhibit V indicates that RP-4 may be approaching full capacity at the end of the ten-year period. 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 would be needed. The current forecast indicates that the design effort for an expansion to 21 mgd should begin in FY 2014/15. This is consistent with the WFMP, which projected that a second expansion of RP-4 would be needed before the year 2020. Accordingly, the design effort may be included in next year's ten-year plan.

This Ten-Year Program also includes an expansion of the solids handling capacity for the Northern Service Area on new land which will be purchased adjacent to the RP-4 site. The project, called "RP-4 Solids Expansion and Cogeneration," is scheduled to begin in FY12/13 and finish in FY14/15. It would provide enough solids handling capacity at RP-4 for 14 mgd of wastewater flow and provide energy for the new composting facility.

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 Expansion to 14 MGD	Fiscal Year 2006/07	$34.2
RP-4 Solids Expansion	Fiscal Year 2014/15	$27.0
RP-4 Trunk Sewer Construction	Fiscal Year 2014/15	$9.7
RP-4 Energy Load Reduction	Fiscal Year 2004/05	$8.5
San Bernardino Ave Pump Station/Force Main	Fiscal Year 2006/07	$4.2
Total—Major RP-4 Projects		***$83.6***
Total—All RP-4 Projects		***$84.8***

For the RP-4 service area, this Ten-Year Program is similar to last year's program with a few exceptions. The projected expenditures increased because the RP-4 solids expansion project now falls within the ten-year window. However, all but $5-million of this increase was offset by delaying the schedule for construction of satellite water recycling plants to beyond 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-FY03/04, 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 3 mgd will be bypassed from CCWRF to R-5 for the next few years, until the RP-5 capacity is needed to treat RP-1 bypass flows and RP-5 service area flows.

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, including 1.2 mgd of recycle streams from RP-2. With the recycle flow eliminated from CCWRF, the available capacity for treating service area flow at CCWRF is 11.4 mgd. Also, by implementing IEUA's Salinity Action Plan to maximize salt export by connecting most industry with TDS (salinity) exceeding 500 mg/l to the NRW system, the influent flow to CCWRF may be further reduced by approximately 0.2 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 ($9 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 2007/08	$8.8
CCWRF Aeration System Modification	Fiscal Year 2011/12	$3.5
CCWRF Chlorination Facilities	Fiscal Year 2005/06	$1.3
Total—Major CCWRF Projects		***$13.6***
Total—All CCWRF Projects		***$16.0***

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 9.5 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 influent flow rate to RP-5 may be as high as 15.3 mgd by the end of the ten years. The total plant capacity is 15.0 mgd. The current flow projections indicate that an expansion of RP-5 would be needed by about FY12/13. 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 FY08/09 and be completed in FY11/12.

The RP-2 and RP-5 capital projects are summarized in Table 3-3 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, including a project which is already underway to allow three-phase digestion. 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.

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 2011/12	$62.8
RP-1/RP-5 Bypass	Fiscal Year 2006/07	$15.1
RP-5 Renewable Energy Generation Efficiency Project	Fiscal Year 2006/07	$10.8
RP-5 Warehouse/Maintenance Facility	Fiscal Year 2007/08	$6.0
Chino Creek Park	Fiscal Year 2005/06	$4.0
Chino Creek Master Plan and Wetland Projects (Grant-Dependent)	Fiscal Year 2005/06 thru FY 2007/08	$4.9
RP-5 Land Restoration/Property Improvements	Fiscal Year 2007/08	$3.5
RP-2 Solids Handling Improvements (3-Phase Digestion)	Fiscal Year 2005/06	$2.1
RP-2 Decommissioning	Fiscal Year 2006/07	$1.8
Total—Major RP-2/RP-5 Projects		***$111.0***
Total—All RP-2/RP-5 Projects		***$116.1***

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.

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.

For the RP-2/RP-5 service area, the major difference between this year's Ten-Year Program and last year's program is the inclusion of $63 million for expansion of RP-5 from 15 to 27 mgd. Planning of this expansion is necessary to meet Member Agency growth projections. Offsetting a portion of this increase, there is a cost decrease of $15 million because the RP-5 solids handling facilities construction project is scheduled to occur after the ten-year period of the CIP. As discussed above, there is sufficient solids handling capacity at RP-2 for the entire Southern Service Area.

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. 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. Currently, the Agency has two recycled water systems which operate independently of each other: (1) a pipeline that distributes recycled water from RP-1 and RP-4; and (2) the recycled water distribution system from CCWRF. Present use of recycled water is limited by the geographic location of these facilities. A major consideration in this Ten-Year Capital Improvement Program is the need to tie the Agency's existing recycled water distribution systems together to provide reliability through uninterrupted service to users.

4.1 BACKGROUND

IEUA has been serving recycled water since the beginning of the Regional Sewage Service Contract between Chino Basin Municipal Water District and its Member Agencies 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 1990s, IEUA planned and built the first phase of the Carbon Canyon Recycled Water Project which now serves several customers in Chino and Chino Hills.

IEUA also initiated the planning of a regional recycled water delivery system. This planning effort culminated in the completion of the IEUA 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. Implementation of the Regional Recycled Water Program is planned in five project phases with an estimated cost of $125 million to be funded by a combination of state and federal grants, state low-interest loans, Metropolitan Water District Local Resources Program rebates, and transfers from the Regional Capital Improvement fund. Implementation is planned over a ten-year period depending on availability of grant funding. The first phase includes key regional lines necessary to interconnect the two existing recycled water line networks and serve the largest, most

convenient customers and groundwater recharge basins first.

The following are significant events leading up to the 2002 Feasibility Study and to the present:

- 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
- 2002 Regional Recycled Water Program Feasibility Study
- 2002 Programmatic Environmental Impact Report
- 2003 SWRCB Grant ($5 million) & Loan ($22 million) Approved
- 2003 Initiate Construction of Phase I Facilities

4.2 REGIONAL RECYCLED WATER PROGRAM

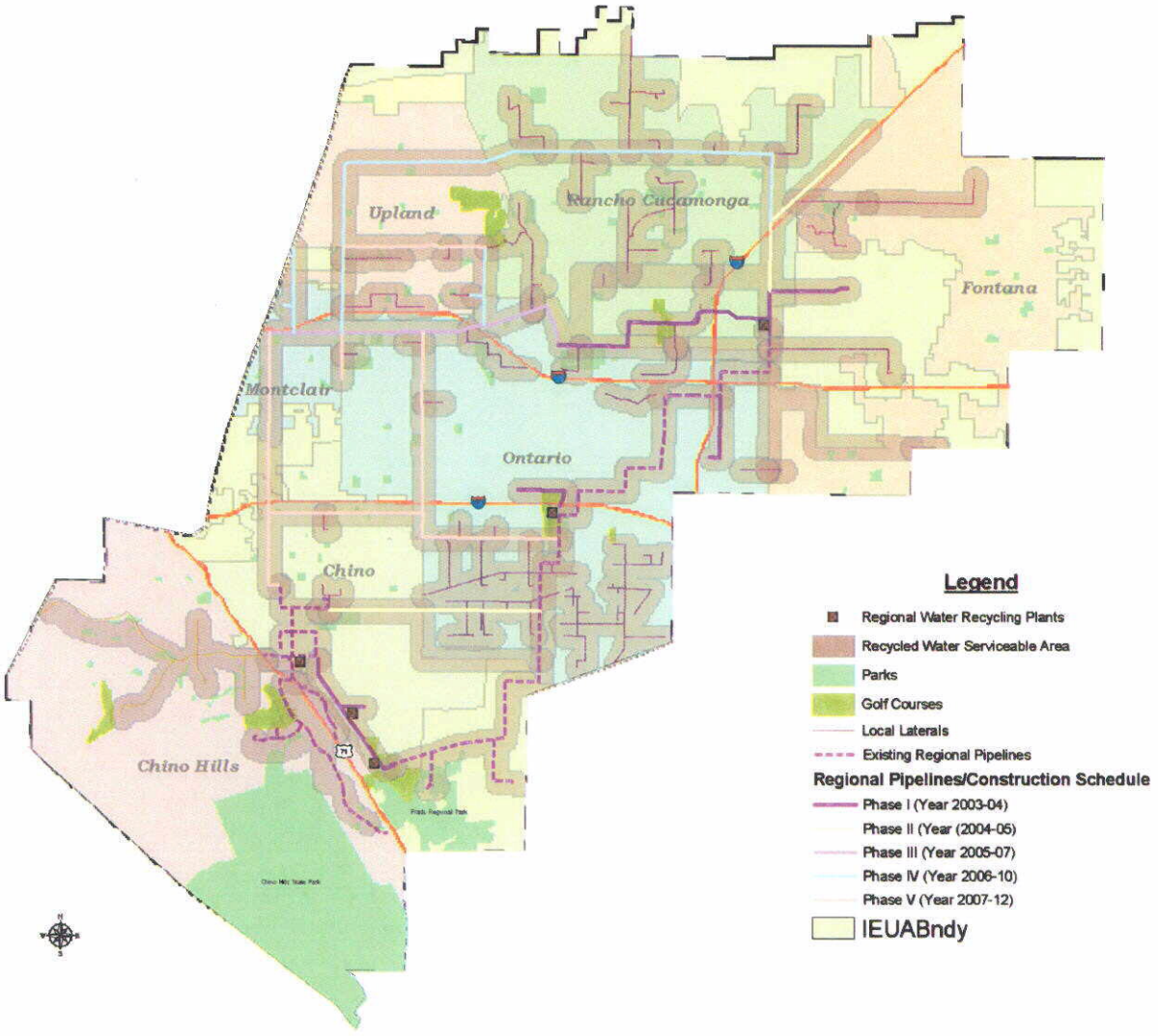
The 2002 Feasibility Study included an assessment of the potential recycled water customers within the IEUA service area. IEUA staff worked with the regional agencies to identify over 2,700 potential customers. This information was used to plan the regional and local recycled water distribution pipelines. The distribution system pipeline locations were selected to provide recycled water to the largest customers or groups of customers resulting in more cost effective facilities. Based on this distribution system layout, over 1,000 of the largest customers can be served totaling over 45,000 afy plus 25,000 afy for recharge.

4.2.1 Regional Recycled Water Facilities

In September of 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.

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 Facilities Master Plan, will also be connected to the regional facilities. The regional facilities have been described in 29 separate projects of pipelines, pump stations and reservoirs. These projects have been grouped into five program phases scheduled in order of priority from one to five. 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 sources. 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 facilities and phases are shown in Figure 4-1.

FIGURE 4-1
IEUA REGIONAL RECYCLED WATER PROGRAM PHASING



4.2.2 Local Recycled Water Facilities

As described above, local recycled water facilities are those which serve only one contracting agency. Each local agency is responsible for the planning, design, construction and operation of

local laterals within their service area. The Feasibility Study identified 40 local laterals to serve recycled water customers in each agency's service area. IEUA is working closely with each agency to coordinate their recycled water planning efforts. In order to assist the local agencies with the implementation of their recycled water systems, IEUA is providing technical assistance and, if requested, financing of the local agencies facilities. Funds for this financing are in IEUA's Adopted Agency Budget and this TYCIP; however, the amount of funding will depend on the agencies' needs. A similar financing was used for the construction of the Carbon Canyon Recycled Water Project in the 1990s.

4.2.3 Regional Recycled Water Program Schedule

Table 4-1 summarizes the Regional Recycled Water Program phases and schedule:

Table 4-1: Recycled Water Program Phases and Schedule

Program Phase	*Schedule*	*Number of Customers*	*Recycled Water Demand (afy)*	*Capital Cost (millions)*
Existing System	Complete	100*	7,420*	-
Phase I	2003/04	110	11,100	$27
Phase II	2004/05	170	16,290	$28
Phase III	2005/07	290	13,590	$25
Phase IV	2006/10	230	11,790	$23
Phase V	2007/12	140	11,040	$22
Total		***1,040***	***71,230***	***$125***

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

4.3 PROGRAM STATUS

In 2003, construction of the Phase I facilities was initiated. As of this date, two of the Phase I projects have been completed, two are under construction and design is substantially complete on the remaining two. All of the Phase I facilities will be complete by 2005.

IEUA has begun the design phase for the Phase II facilities and the selection process for a design consultant. The consultant will also prepare a 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. Design of Phase II will be complete in early 2005 and construction complete by late spring of 2006. With the availability of additional funding from the Department of Water Resources, IEUA will also begin design on the first project of the

Phase III facilities.

4.4 ENVIRONMENTAL DOCUMENTATION AND PERMITTING

A significant part of the activity associated with a successful water recycling program is regulatory permitting and environmental documentation. To comply with the California Environmental Quality Act (CEQA), IEUA certified a Programmatic Environmental Impact Report (EIR) in June 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. IEUA is also fully complying with all other permitting and approval requirements for these projects in cooperation with federal, state, and local regulatory agencies

4.5 RECYCLED WATER PROGRAM 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%
• State Loans		25 – 35%
Operations/Loan Repayment		
• MWD LPP		$2,000,000
• MWD LRP	(future new agreement)	$1,800,000

SWRCB: As of this date, IEUA has received funding contracts from the State Water Resources Control Board (SWRCB) for $5 million in grant funds (SWRCB caps grants at $5 million) and up to $22 million in State Revolving Fund (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 $19 million in SRF loan funds and the full $5 million in grant funds.

In September of 2003, IEUA submitted a Financial Assistance Application to SWRCB for Phase II. IEUA has requested $5 million in grant funds and up to $23 million in SRF loans for the Phase II projects. SWRCB review of the application will occur concurrently with the design of the projects.

USBR: IEUA has also worked to obtain $30 million in federal grant funds through the U.S. Bureau of Reclamation (USBR), $20 million of which is allocated to IEUA's recycled water program. The grant funds are limited to 25 percent 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 2004.

DWR: In 2003, IEUA and Chino Basin Watermaster submitted an application to the State 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, with $5 million for recycled water facilities. These funds will be used for the Edison 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.

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. In December of 2003, IEUA staff submitted a proposal to MWD under the Local Resources Program for an additional 11,500 AFY of direct reuse and 9,500 AFY of recharge deliveries. IEUA has requested a rebate of $110/ AF for direct reuse and $60/AF for recharge deliveries. If this proposal is accepted the annual revenue will be $1.8 million. Combined the rebate from the LPP agreement and the LRP proposal will be $3.8 million annually. 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.

Table 4-2 summarizes the status of funding for the program.

Table 4-2: Recycled Water Program Funding
(Millions)

Funding Source	*Phase I*	*Phase II*	*Phase III*	*Phase IV*	*Phase V*	*Total*	*Percent of Total*
SWRCB Grants	$5*	$5**		$5	$5	$20	16%
SWRCB Loans	$19*	$11**	$11			$41	34%
DWR Grant			$5*			$5	4%
USBR Grants		$7*	$7*	$6*	$5	$25	20%
Inter-fund Transfers from RC and WO	$3	$2	$2	$12	$12	$31	25%
Total	***$27***	***$28***	***$25***	***$23***	***$22***	***$125***	***100%***

* Funding secured or in process
** Application submitted

4.6 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 XI indicates that the total remaining ten-year budget for Recycled Water Capital Improvement Program projects ("Work in Progress") is $80 million for work planned in FY04/05 through FY13/14. As summarized in Table 4-3, the current Ten-Year Program includes 11 recycled water pipeline projects (3 more have been completed) with total ten-year remaining costs of $60 million after FY04/05. In addition, the TYCIP includes five (5) recycled water pump station/reservoir projects with total remaining ten-year costs of $15 million. The budget also includes $1.2 million for land for recycled water projects and $4.3 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 4-3: Recycled Water (WC) Capital Improvement Program—Major Projects

Project	*Ten-Year Cost (in Million Dollars)*
Recycled Water Pipeline Projects	$59.7
Pump Stations and Reservoirs	$14.7
Land for Phase II Recycled Water Projects	$1.2
Total—Major WC Projects	***$75.6***
Total—All WC Projects	***$79.8***

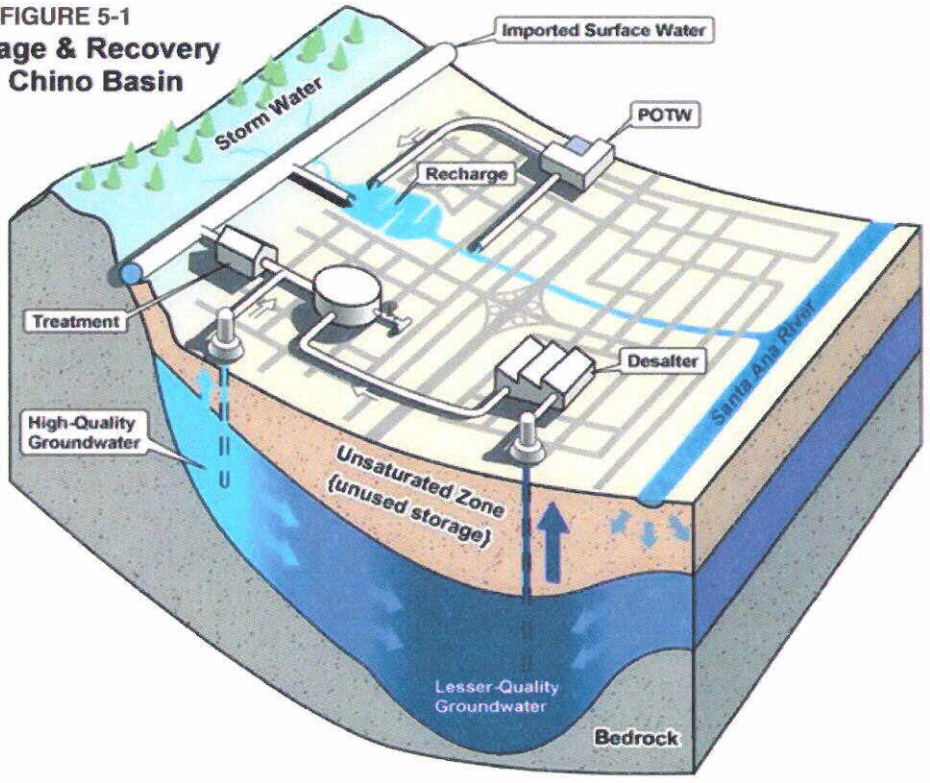
5.0 RECHARGE WATER CAPITAL IMPROVEMENT PROGRAM

5.1 BACKGROUND

The Chino Basin Watermaster and IEUA joint recharge program partnership is described in the Chino Basin Watermaster's Optimum Basin Management Program (OBMP) Recharge Master Plan, Phase II Report (August, 2001). It is a comprehensive plan to increase artificial groundwater recharge within Chino Basin using stormwater, recycled water and imported water. The recharge program is one of the centerpieces of the Chino Basin OBMP, since it is through increased recharge capacity of the Basin that greater quantities of water can be stored and made available during shortages of imported water supply.

Figure 5-1 illustrates how the recharge program fits into the overall plan for Chino Basin groundwater management as outlined in the Watermaster's OBMP and the Recharge Master Plan.

FIGURE 5-1
Storage & Recovery in Chino Basin



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 of construction projects to improve basin recharge facilities. The IEUA is serving as the lead Agency for implementation (design and construction) of this cooperative program.

Full implementation of the Recharge Master Plan will create 120,000 to 170,000 acre-feet per year (afy) of additional, new recharge capacity in Chino Basin. The recharge water is expected to be made up of:

- 20,000 to 25,000 afy of stormwater,
- 80,000 to 120,000 afy of imported water, and
- 20,000 to 30,000 afy of recycled water from the IEUA's Regional Water Recycling Plants.

5.2 CHINO BASIN RECHARGE FACILITIES IMPROVEMENT PROJECT

The recharge program includes proposed improvements at 18 recharge basin sites, including two new sites, with approximately 42 recharge basins. The locations of the recharge sites are shown in Figure 5-2. (Jurupa Basin will be used for storage only.)

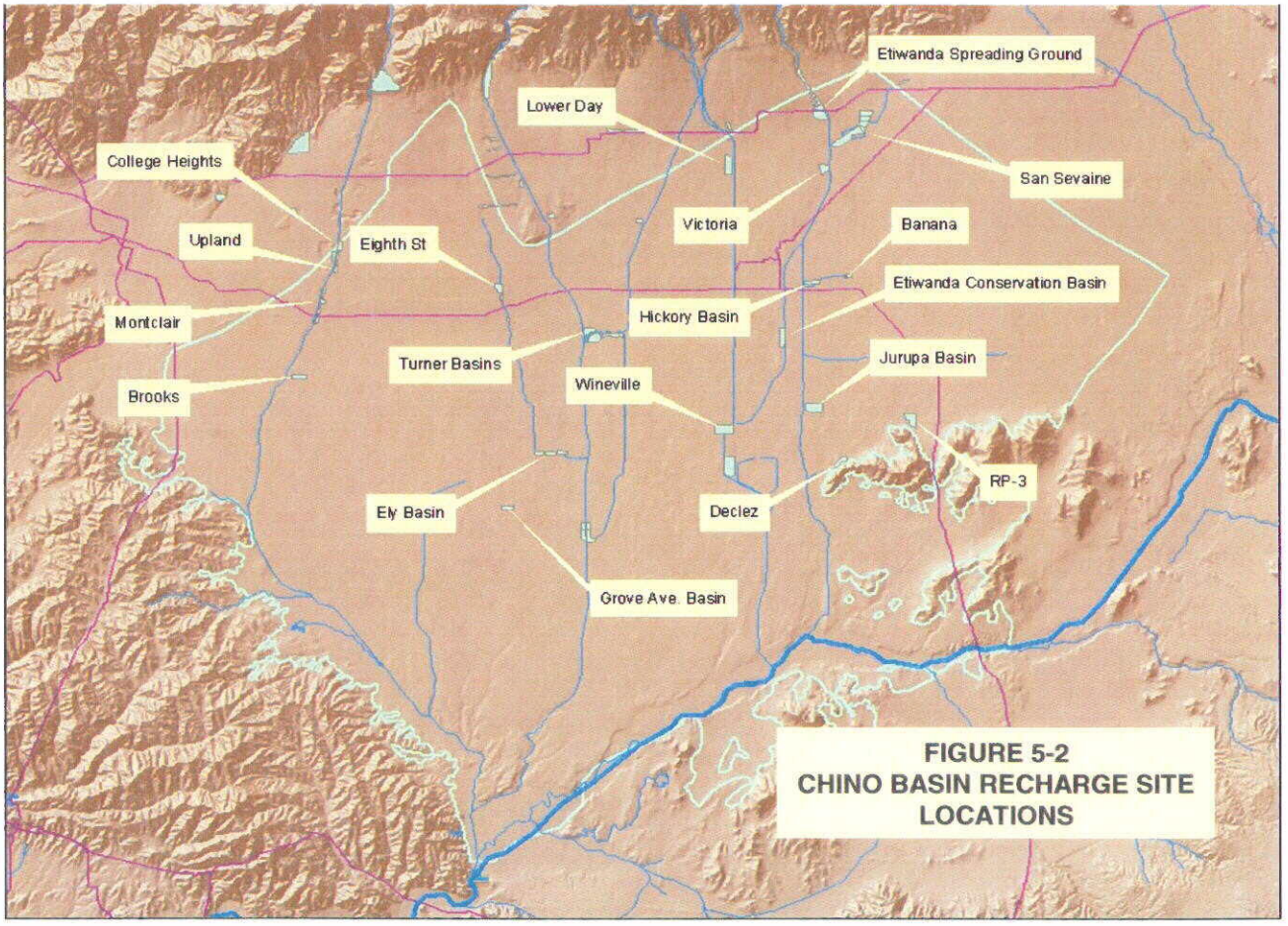


FIGURE 5-2
CHINO BASIN RECHARGE SITE LOCATIONS

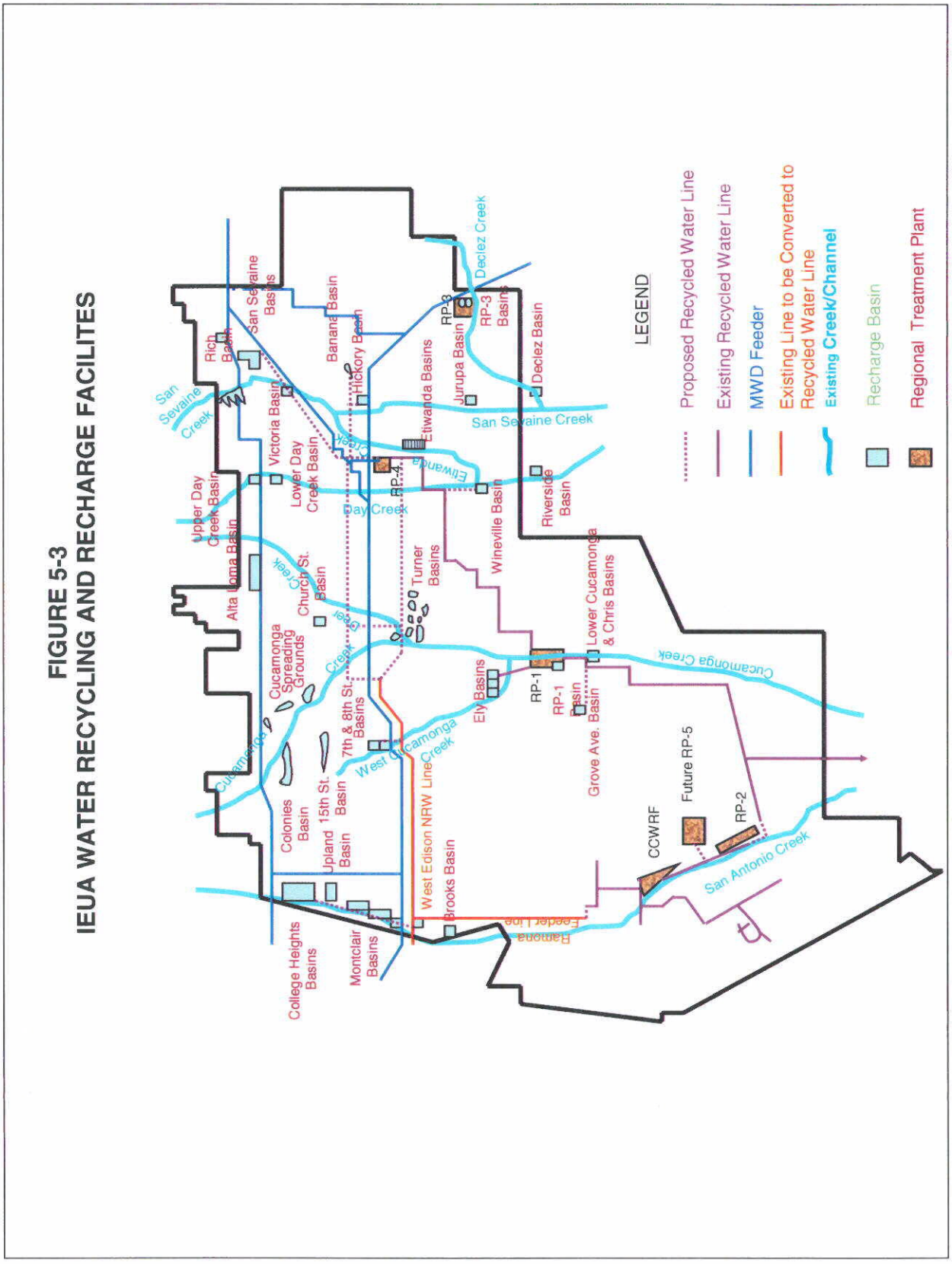
Facilities improvements consist mainly of rubber dams, new or modified basin inlet and outlet structures, earthwork to improve percolation, conveyance facilities, and turnouts from either IEUA's Regional Recycled Water Distribution System or Metropolitan Water District's Foothill Feeder. Implementation 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 be timed to coincide with the improvements to recharge basins necessary to recharge recycled water along with stormwater and imported water. The entire interconnected system of recycled water facilities and recharge facilities as it is planned is shown in Figure 5-3.

The work will be performed as eight separate construction/bid packages. The bid packages are summarized in Table 5-1.

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

Bid Package No.	*Description*	*Construction Cost Estimate*
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
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
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
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
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
6	Redevelopment of two existing MWD Turnouts on the Foothill Feeder line and a new connection on the Etiwanda Intertie.	$1,820,000
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
8	This is a "catch-all" bid package. Depending upon the bids received on the above packages: Groundwater monitoring wells; recycled water turnouts – Ely Basin and Turner Basins; SCADA modules; safety covers for vertical sluice gates.	$2,500,000
Equipment Purchase	Portable pumps, 2 ea.; spare parts for actuators; pick-up; and road grader.	$ 400,000

FIGURE 5-3
IEUA WATER RECYCLING AND RECHARGE FACILITES



The work on the first bid package began on March 24, 2003. Bid Packages 1 and 2 (nine recharge basin sites) are nearing completion and Bid Package 3 (Jurupa Pipeline) is well underway. Bid Packages 4, 5, and 6 (Jurupa Pump Station, SCADA System, and MWD Turnouts) have just started construction. The final components of Bid Package 7 are being designed. All seven bid packages are expected to be constructed by the end of fiscal year 2004/05.

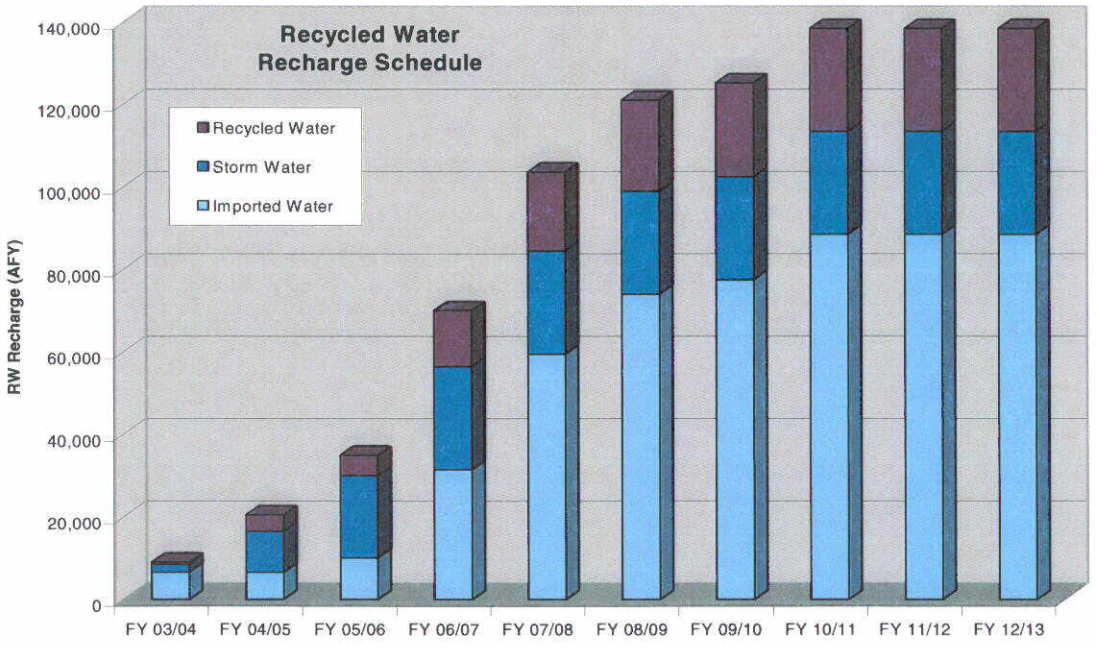
Additional recharge facilities may be developed in the future and land will be acquired as opportunities arise for recharge basins. The most likely addition in the next ten years is the phased development of the Etiwanda Creek/Etiwanda Conservation Pond Project in the unincorporated area on the east 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.

5.3 RECYCLED WATER USE FOR RECHARGE

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 save $6 million to $9 million per year in imported water costs. 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 process.

The schedule for increasing the amount of recycled water recharged into the Chino Basin is illustrated in Figure 5-4.

FIGURE 5-4



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 the Title 22 Engineering Report for Phase I (CH2MHill, November 2003).

5.4 CURRENT TYCIP

As shown in Table 5-2 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 groundwater monitoring wells to evaluate the impacts of the recharge program on the groundwater basin. In addition, there is a project to complete the Title 22 Engineering Reports required by the Department of Health Services for the recharge basins that will be receiving recycled water.

Table 5-2: Recharge Water (RW) Capital Improvement Program—Major Projects

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
Chino Basin Recharge Facilities Improvement Project	Fiscal Year 2004/05	$16.0*
Groundwater Monitoring Wells	Fiscal Year 2004/05	$2.4
Title 22 Phase II Report	Fiscal Year 2004/05	$0.3
Total—Major RW Projects		***$18.7***
Total—All RW Projects		***$18.7***

*Total project budget is $38.7 million.

The construction costs for the bid packages, as listed in Table 5-1, total $33.5 million. Adding the IEUA's costs for design, construction management, contingency, and administration, the IEUA's total budget for the recharge project is $38.7 million. Financing for the Recharge Program is discussed in Chapter 8.

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 sidestreams from the IEUA's water recycling treatment facilities and some domestic waste from unsewered areas. The NRW system is physically separate 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 exports approximately 29,000 tons per year of salt to the ocean, as summarized below:

FY2003/04	*MGD*	*mg/L*	*Tons/Year*
North NRW System	3.85	2,755	16,144
South NRW System	2.7	3,237	13,302
Total Salt Export	***6.55***	***2,953***	***29,446***

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 sewage system has reduced the total dissolved solids (TDS) levels in the Agency's recycled water by approximately 250 mg/l. The Agency is currently on the edge of meeting the water quality permit limitations for the regional plants (550 mg/l TDS discharge limit and 250 mg/l incremental increase above water supply TDS). 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 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

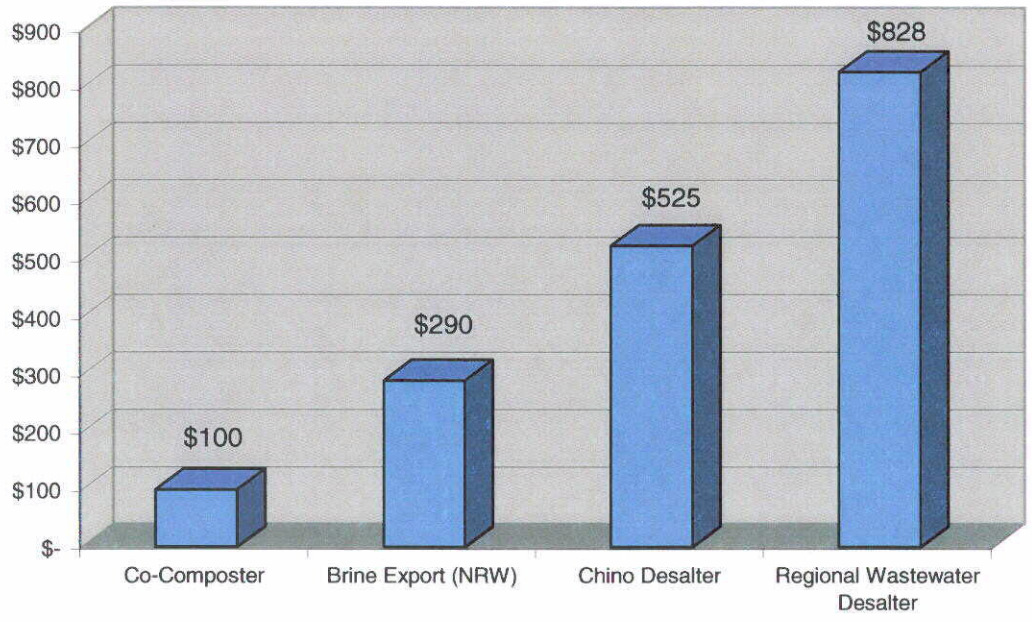
The IEUA developed a Salinity Management Action Plan in 2002 in cooperation with the Regional Sewage Technical and Policy Committees. Some of the strategies that were identified to reduce the salinity of IEUA's recycled water supplies included:

- maximizing the use of the IEUA's non-reclaimable waste (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. It found 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 user rates and charges for the two systems ("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 is to implement strategies to reduce total dissolved solids (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—Develop 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. (Water softener usage adds about 15 to 20 mg/l of TDS to the recycled water.) The budget for the program is $250,000 per year from the Regional Sewage System Operating (RO) Fund.

- Buyback Agreement with Los Angeles County Sanitation Districts—Reduce unused IEUA-owned capacity in the NRW by 3 MGD, lowering payments to LACSD by $500,000 in FY03/04 and approximately $9 million through 2018. The savings will be passed on to NRW customers through more favorable rates and charges, to encourage the use of the NRW system for 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 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).

- 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 Metropolitan Water District (MWD). Part of this effort will be an evaluation of a rate structure that encourages brine discharge from the ion exchange plants to the NRW system.

- Industry "Pass Through" Rates and Connections of New Industry to the NRW System—Export more salt from the Chino Basin by encouraging more industries to discharge their brine wastes to the system. A proposed contract with Niagara Bottling Company was just completed as a "case study" of this effort. The IEUA is also preparing a rate design study and budget impact analysis for existing industrial customers. The goal is to "pass through" to industrial customers the costs that the LACSD and SAWPA charge to the IEUA for using their non-reclaimable waste systems, with addition of only minimal charges to cover the IEUA administrative expenses. Providing economic incentives for industry to not discharge saline wastewater into the regional water recycling plants is a key part of the Chino Basin OBMP strategy.

- Regional Sewage Program and NRW Program Integration—Continue with the IEUA Board's policy of phased implementation of budgets and rates that provide economic incentives for users of the NRW system. This includes "regionalization" of the NRW program through integrating aspects of the Regional Sewage and NRW capital and operating funds. The Agency's FY04/05 Budget and this Ten-Year CIP incorporate specific budget options that were developed in coordination with the IEUA's Regional Technical and Policy Committees, such as RC Fund purchase of remaining unallocated capacity in the NRW system. The purchase of unallocated capacity by the RC Fund would result in payment of the annual "4R" repair and replacement costs for that portion of the capacity by the RC Fund, thus reducing the economic burden on other users of the NRW system.

- Chino Desalter "SARI" Capacity Alternatives—Secure treatment capacity in the portion of the NRW system known as SARI (for Santa Ana Regional Interceptor) to handle the brine waste from the Chino I Desalter Expansion and the future Chino II Desalter. The IEUA staff is coordinating with the Chino Desalter Authority, Jurupa Community Services District, Western Municipal Water District and SAWPA regarding the sale of existing IEUA capacity to provide capacity for the desalters. The revenue from the sale is expected to be $14.2 million, which will come from the sale of unused SARI capacity belonging to either the Regional system or the NRW system. Approximately $4.7 million from the sale is expected to be deposited into IEUA's Regional Capital Improvement Fund (RC Fund) and $9.5 million is expected to be deposited into the NRW Capital Improvement Fund (NC Fund).

- Sale of Temporary SARI Capacity to City of Chino/Lewis Operating Company—Utilize the SARI capacity which will become available in 2008 when the California Institute for Women stops discharging to the SARI and starts discharging to IEUA's Regional Plant

No. 5. There is a draft agreement for a 4-year temporary sale of capacity to the City of Chino and Lewis Operating Company. This will allow development of homes to proceed in an unsewered area of the City of Chino while a regional interceptor sewer is constructed to serve the area.

6.3 *ECONOMIC BENEFITS OF THE NRW ACTION PLAN*

The 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 can be 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 Sewage 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 ten years have been reduced by $5.6 million, or 23 percent, because of the pending sale of 3 mgd of unused NRW system capacity back to CSDLAC. In addition, the TYCIP includes a capital project to reduce sturvite scale buildup in the 6-inch NRW pipeline between RP-1 and Philadelphia Avenue. The sturvite mitigation program will prevent pipeline clogging and avoid maintenance costs for manually chipping and vacuuming scale out of

the pipeline. The sturvite mitigation program is scheduled to be developed and implemented between FY 04/05 and FY 07/08.

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*
MWD Ion Exchange Connections	Fiscal Year 2006/07	$6.9
Sturvite Mitigation Program	Fiscal Year 2007/08	$2.7
NRWS Capital Replacement Contingencies	Each Year	$0.2
Total—Major NRW System Projects		***$28.6***
Total—All NRW System Projects		***$28.8***

*Includes $5.6 million savings from sale of 3 mgd unused capacity back to CSDLAC.

A new project was added to the TYCIP this 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 disposing of manure and green waste material 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: 11,751 tons of total dissolved solids (salt), 67 tons of nitrate-nitrogen, and 1,025 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	Approved $49,950,000 to Construct the IERCF
February 2004	Completed Design of the IERCF and solicited bids for construction
March 2004	Opened bids for construction, Tilden-Coil Construction low bidder
October 2005	Will complete construction and begin start-up.

7.3 CURRENT TYCIP

As indicated in Table 7-1, the major TYCIP projects in the Organics Management and Co-Composting Programs include the IERCF and a Complete-Mix Anaerobic Manure Digester. The design and construction of the IERCF is expected to cost approximately $63 million. Half of the design and construction costs will be paid by CSDLAC through the Inland Empire Regional Composting Authority.

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

Project	*Scheduled Completion*	*Ten-Year Cost (in Million Dollars)*
Inland Empire Regional Composting Facility	Fiscal Year 2005/06	$27.8[1]
Complete Mix Digestion Technology	Fiscal Year 2005/06	$3.0 [2]
RP-5 Renewable Energy Project Digester Expansion/Modification	Fiscal Year 2004/05	$2.0
Co-Composting Phase-Out/Pilot Projects	Fiscal Year 2005/06	$0.7
Total—Major OC/CC Projects		***$33.5***
Total—All OC/CC Projects		***$33.7***

[1]Out of a project budget of $31.3 million. This does not 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.
[2]Project will be 100% CEC grant-funded.

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 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 FY04/05 through FY05/06.

The TYCIP also includes a project to expand and modify the existing RP-5 Renewable Energy Facility digester. 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 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.

8.0 TEN-YEAR CIP COSTS AND FINANCING

8.1 INTRODUCTION

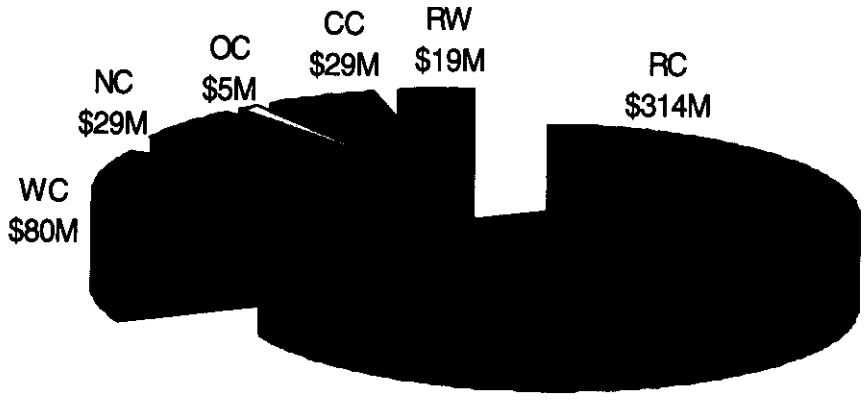
The Agency's budget and Ten-Year Capital Improvement Program are divided into several different funds/program areas:

- Regional Domestic Sewage System Capital Improvement Fund (RC Fund)
- Recycled Water Capital Improvement Fund (WC Fund)
- Recharge Water Capital Improvement Fund (RW Fund)
- Non-reclaimable Waste System Capital Improvement Fund (NC Fund)
- Organics Management Capital Improvement Fund (OC Fund)
- Co-Composting Capital Improvement Fund (CC Fund)

These funds account for all of the costs and revenues associated with acquisition or construction of facilities and improvements. In addition, there are operating funds for each program area (RO, WO, NO, etc.) which identify all of the revenues and costs associated with operation and maintenance of the facilities. The operating funds are described in the Agency's adopted Budget and are not discussed in this Ten-Year Plan except to note any transfers between capital and operating funds.

As shown in Figure 8-1, by far the largest capital improvement program area is the RC Program. For each program area, the complete list of projects with schedules and budgetary costs is in Appendix B.

FIGURE 8-1
RECOMMENDED TEN-YEAR CAPITAL PROJECT EXPENDITURES



8.2 *REGIONAL SEWAGE PROGRAM*

This year's Ten-Year Program recommends $314 million in capital project expenditures for the RC Program over the next ten years for both new construction and replacement projects. The projected RC Program expenditures are higher than in last year's (FY 2002/03) TYCIP by approximately $90 million dollars. The increase is generally attributable to the higher growth forecast for the Agency's service area and the need to accelerate some expansion projects. The most significant change is the expansion of RP-5 in FY 2011/12.

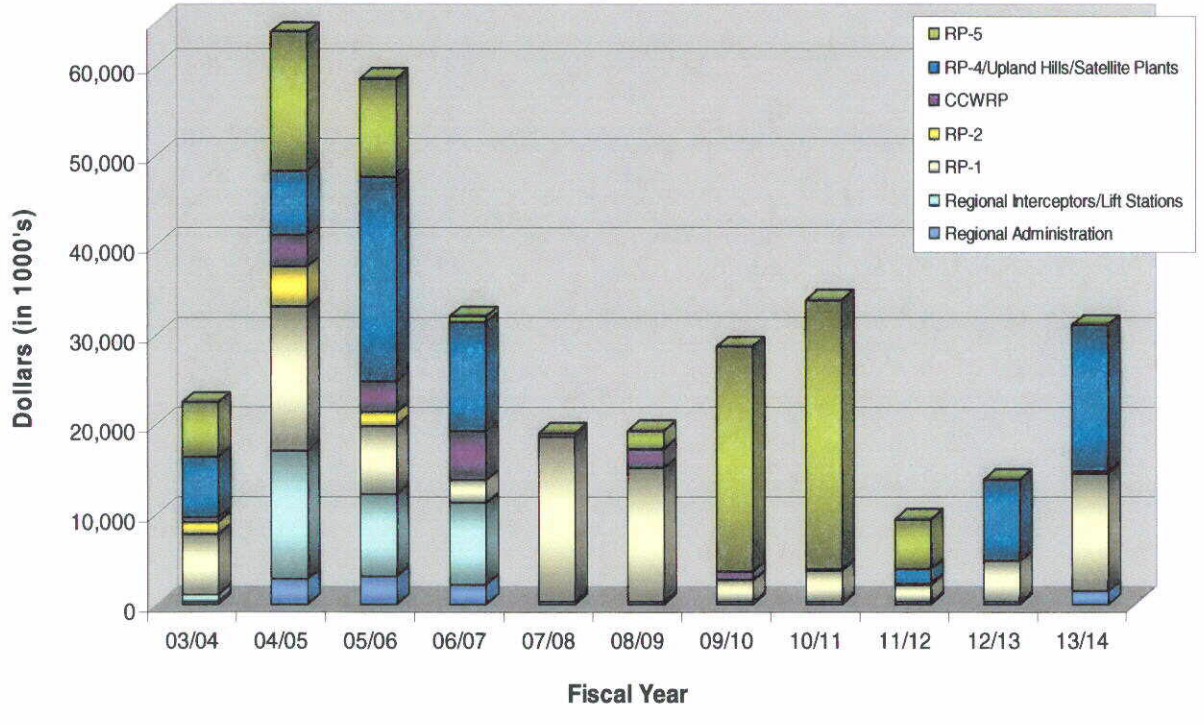
Table 8-1 ("Regional Sewage Program Summary") lists the largest RC projects, in terms of ten-year cost, by service area. The projects listed in Table 8-1 account for 94 percent of the $314 million budgeted for RC projects in the next ten years. Within the RC Program, the top five areas of expenditures are:

- Expansion of RP-4 from 7 to 14 MGD ($34.2 million);
- Construction of RP-4 Solids Handling Facilities for 14 MGD ($27.0 million);
- RP-1 Secondary Treatment System Modifications ($31.1 million); and
- Upland Interceptor Relief Sewer-Phase II ($14.6 million); and
- Expansion of RP-5 from 15 to 27 MGD ($62.8 million).

8.2.1 *Regional Sewage Program Costs*

Figure 8-2 examines how the recommended RC capital project costs are spread over the next ten fiscal years and grouped by location. The current fiscal year is also included for reference. The

FIGURE 8-2
RECOMMENDED REGIONAL PROGRAM CAPITAL EXPENDITURES



general trend which is visible is a relatively high level of expenditures in the first two years--about $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 and 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; 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. In the final two years, the focus is on construction of RP-4 solids handling facilities and on RP-1 equalization/odor control.

8.2.2 Regional Sewage Program Financing

To plan, design, and construct the RC program capital projects summarized previously in Chapter 3, it is expected to cost approximately $314 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 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, Co-Composting, and Internal Services funds. There are also transfers into the RC fund from the Regional System Operations and Maintenance fund and the Tertiary Operations and Maintenance fund for replacement capital.

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 $9.7 million for wetlands and energy efficiency projects. The key sources of revenue for the TYCIP are property taxes ($186 million) and supplemental capital contributions ($263 million). Supplemental capital contributions come from calls to Member Agencies for Capital Capacity Reimbursement Payments, 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 6,250 per year for the first four years, followed by 6,000 for the fourth year, and 4,500 per year for the last six years was assumed for the revenue projections. (Actual growth projections are even higher, as discussed in Chapter 2.)

It has been assumed that the Capital Capacity Reimbursement Payment will be increased at the rate of inflation in construction costs, estimated at an average of 3% per year. The current Capital Capacity Reimbursement Payment amount is $3,905 per EDU. It was raised from $3,840 per EDU by the IEUA Board of Directors in March of 2004 to match the increase in the construction cost index for the Los Angeles region noted over the previous year.

Table 8-1: Regional Sewage Program Summary

SERVICE AREA	TEN-YEAR COST ($ IN MILLIONS)
RP-1	
• Secondary Treatment System Modifications	31.1
• Upland Interceptor Relief Sewer-Phase II	14.6
• Odor Control-Equalization	13.4
• Solids, Digester and Gas System Improvements	13.1
• Odor Control-Phase I and II	6.5
• Belt Press Filtrate Treatment	3.8
• Modernization	4.3
Total—Major RP-1 Projects	***$86.8***
Total—All RP-1 Projects	***$100.4***
RP-4	
• RP-4 Liquids Expansion to 14 MGD	34.2
• RP-4 Solids Expansion	27.0
• RP-4 Trunk Sewer Construction	9.7
• RP-4 Energy Load Reduction	8.5
• San Bernardino Ave. Pump Station/Force Main	4.2
Total—Major RP-4 Projects	***$83.6***
Total—All RP-4 Projects	***$84.8***
CCWRF	
• Filters and Contact Tank Expansion	8.8
• Aeration System Modification	3.5
• CCWRF Chlorination Facilities	1.3
Total—Major CCWRF Projects	***$13.6***
Total—All CCWRF Projects	***$16.0***
RP-2/RP-5 (Total-- $116.1 Million)	
• RP-5 Expansion to 27 MGD	62.8
• RP-1/RP-5 Bypass	15.1
• RP-5 Renewable Energy Generation Efficiency	10.8
• RP-5 Warehouse/Maintenance Facility	6.0
• Chino Creek Master Plan and Wetland Projects (Grant-Dependent)	4.9
• Chino Creek Park	4.0
• RP-5 Land Restoration/Property Improvements	3.5
RP-2 Solids Handling Improvements (3-Phase Digestion)	2.1
• RP-2 Decommissioning	1.8
Total—Major RP-2/RP-5 Projects	***$111.0***
Total—All RP-2/RP-5 Projects	***$116.1***
Total--Major Regional Sewage System Projects	***$295M***
Total--All Regional Sewage System Projects	***$314M***

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), the Organics Management Program (OC Fund), and the Co-Composting Program (CC Fund). Exhibits IX through XIII 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 $80 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 State Department of Water Resources (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 $4 to $6 million annually for the WO Fund, the excess portion of which will be transferred to 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 $19 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 Fiscal Year 2002/03 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.

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.

8.3.3 Non-Reclaimable Wastewater System Capital Program

The NC Fund records financial transactions associated with capital 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 $29 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. The Agency is also responsible for the continuing installment purchase of SARI pipeline capacity (approximately $100,000 per year). In addition, the NC Fund has a remaining expense of $4 million to repay a previous loan from the Agency's Internal Services Fund (GG Fund). This will be paid through proceeds from the sale of SARI capacity to the Chino Desalter Authority (CDA).

Table 8-2: Major Capital Projects—Other Programs

	TEN-YEAR COST ($ IN MILLIONS)
WATER RECYCLING PROGRAM	
Recycled Water Pipeline Projects	59.7
Recycled Water Pump Stations and Reservoirs	14.7
Land for Phase II RW Projects	1.2
Total--Major Water Recycling Projects	**75.6**
Total—All Water Recycling Projects	**79.8**
GROUNDWATER RECHARGE PROGRAM	
Chino Basin Recharge Facilities Improvements	16.0
Groundwater Monitoring Wells	2.4
Title 22 Phase II Report	0.3
Total--Major Recharge Projects	**18.7**
Total—All Recharge Projects	**18.7**
NON-RECLAIMABLE WASTEWATER SYSTEM	
CSDLAC Capital Replacement Costs – 4Rs	18.8
MWD Ion Exchange Connections	6.9
Sturvite Mitigation Program	2.7
NRWS Capital Replacement Contingencies	0.2
Total--Major NRW System Projects	**28.6**
Total--All NRW System Projects	**28.8**
ORGANICS MANAGEMENT/CO-COMPOSTING	
Inland Empire Regional Composting Facility[1]	27.8
Complete Mix Digestion Technology[2]	3.0
RP-5 Renewable Energy Project Digester Expansion/Modification	2.0
Co-Composting Phase-Out/Pilot Projects	0.7
Total--Major Organics Management/Co-Composting Projects	**33.5**
Total—All Organics Management/Co-Composting Projects	**33.7**

[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.
[2]Project will be 100% grant funded.

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. The NRW System Operation and Maintenance Fund (NO Fund) provides additional support to cover the CSDLAC 4R charges through inter-fund transfers. A portion of the capacity in the NRW System is owned by the Agency's Regional Sewage Program and is used as contingent treatment capacity for domestic wastewater. Therefore, the RC Fund pays monthly user charges and contributes to the NC Fund for 4R charges based on the percentage of capacity owned.

8.3.4 Organics Management and Co-Composting Capital Programs

The Co-Composting Capital Improvement Fund (CC Fund) and the Organics Management Capital Improvement Fund (OC Fund) record financial transactions associated with capital facilities necessary to implement the Co-Composting and Organics Management Programs. In addition to paying for new capital projects, the CC Fund incurs expenses for debt service from previous bond issues and both funds incur administrative and miscellaneous expenses. Exhibits XII and XIII summarize the Agency's ten-year budget for the CC and OC Funds. In the Organics Management Program, the major capital expenditures are for the two digester projects discussed in Chapter 7. The Complete-Mix Manure Digester will be 100-percent funded through grants from the California Energy Commission (CEC). The RP-5 Digester Expansion/Modification will receive partial grant funding ($0.8 million) from the CEC through the Western United Resource Development Association. Interfund transfers from the RC Fund will provide another $5 million of capital support for the OC Fund.

In the Co-Composting Program, the major capital expenditure is 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 2002/03. In addition, interfund transfers from the RC Fund to the CC Fund will provide approximately $14 million for capital contributions and debt service. Another major revenue source for the CC 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 Member 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.

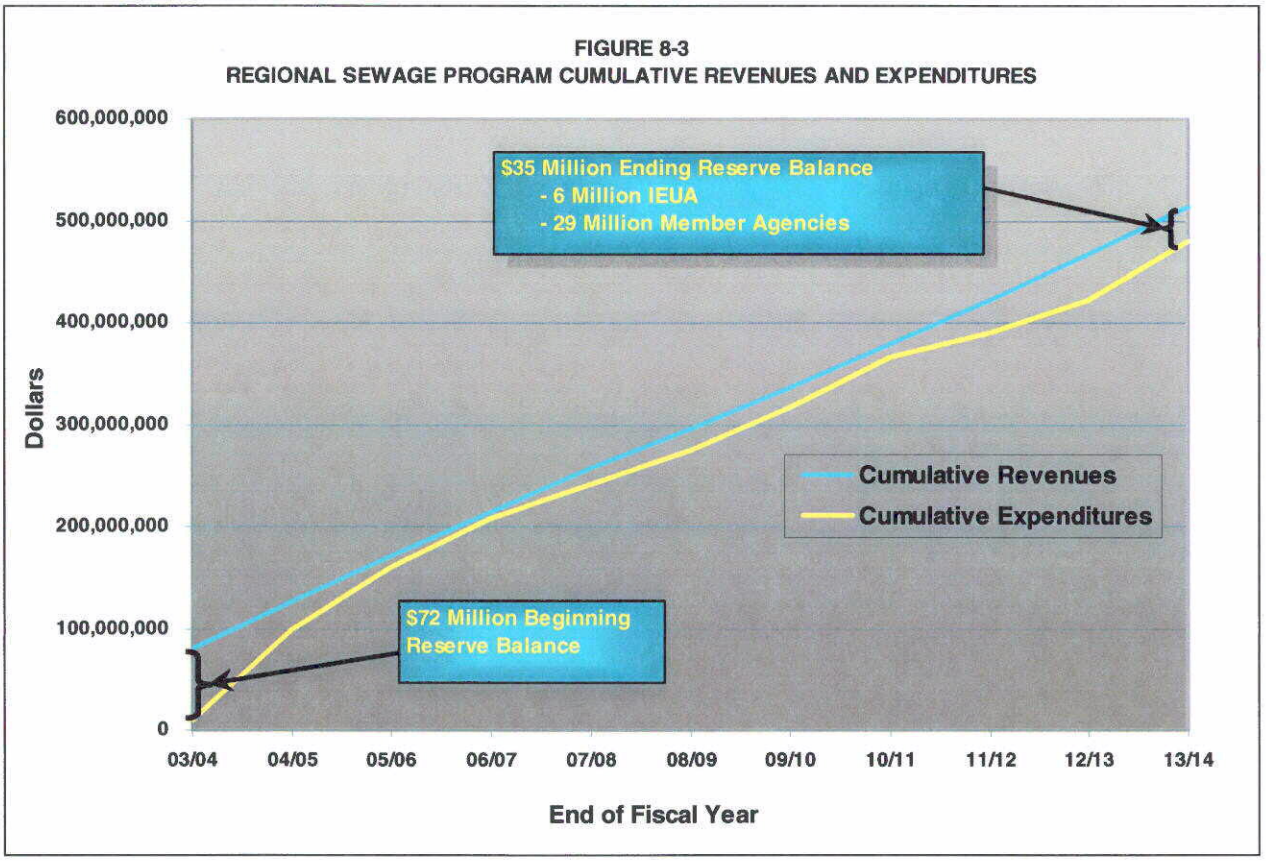
Table 8-3: Projected Status of Reimbursement Payment Receipts (in $1000s)

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	13,551	24,519	10,306	0
1998-99	13,718	14,637	9,387	0
1999-00	14,390	3,200	20,577	0
2000-01	13,089	18,000	15,666	0
2001-02	12,810	48,010	0	0
2002-03	23,816	0	23,816	0
2003-04	24,960	0	48,776	0
2004-05	23,430	59,116	13,091	0
2005-06	24,133	40,449	0	0
2006-07	24,857	28,345	0	0
2007-08	25,603	16,139	9,464	0
2008-09	19,778	17,215	12,026	0
2009-10	20,371	27,702	4,696	0
2010-11	20,982	22,944	2,735	0
2011-12	21,612	4,942	19,405	0
2012-13	22,260	12,675	28,991	0
2013-14	22,928	32,135	19,783	0

8.5 CONCLUSIONS

The recommended financing for the Regional Program is adequate to fund the Ten-Year Capital Improvement Plan without additional debt service issues (revenue bonds). Figure 8-3 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 $72 million at the end of Fiscal Year 2003/04, and 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 $35 million.

FIGURE 8-3
REGIONAL SEWAGE PROGRAM CUMULATIVE REVENUES AND EXPENDITURES



Capital Capacity Reimbursement Payments are projected to provide $263 million for the capital improvement program over the next ten years. Grants are expected to provide $10 million for Regional Program projects. Grants are expected to provide another $45 million for Recycled Water projects, $16 million for Groundwater Recharge and $3.8 million for Organics Management projects. State Revolving Fund loans are expected to provide approximately $44 million for Recycled Water projects. The other main revenue sources are approximately: $186 million in property tax revenues/recovery; $5.0 million from Watermaster for the groundwater recharge program; $28 million from NRW System user charges and capacity fees; $13 million in interest on reserves; and $13 million in payments from the sale of property.

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. Next year (2005), this master plan needs to be updated. IEUA staff will be closely coordinating this effort to update 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 2005 Master Plan Update will be to improve utilization of existing facilities while expanding these facilities to meet the rapid growth in the IEUA service area. The WFMP will be updated to incorporate the Urban Water Management Plan, with emphasis on using water recycling, groundwater storage and water conservation to increase local water

supplies to meet urban water needs.

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 2005 Master Plan Update 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?

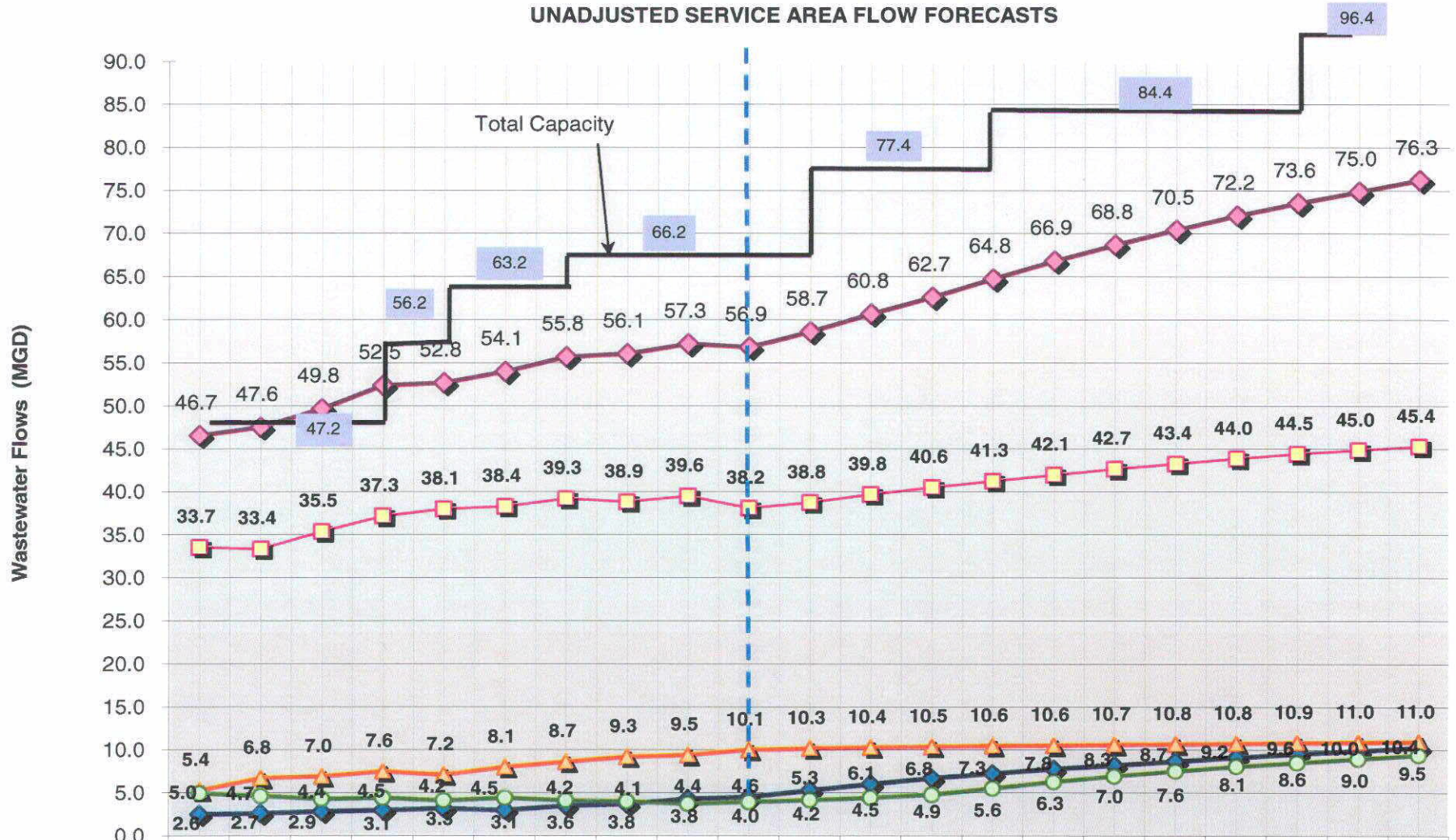
- **RP-1 Aeration System** – How should secondary treatment "Train D" be designed to improve treatment efficiency, hydraulic capacity and redundancy in "Trains A through C?"

- **Technology** -- Use of technology to further reduce operating costs 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.

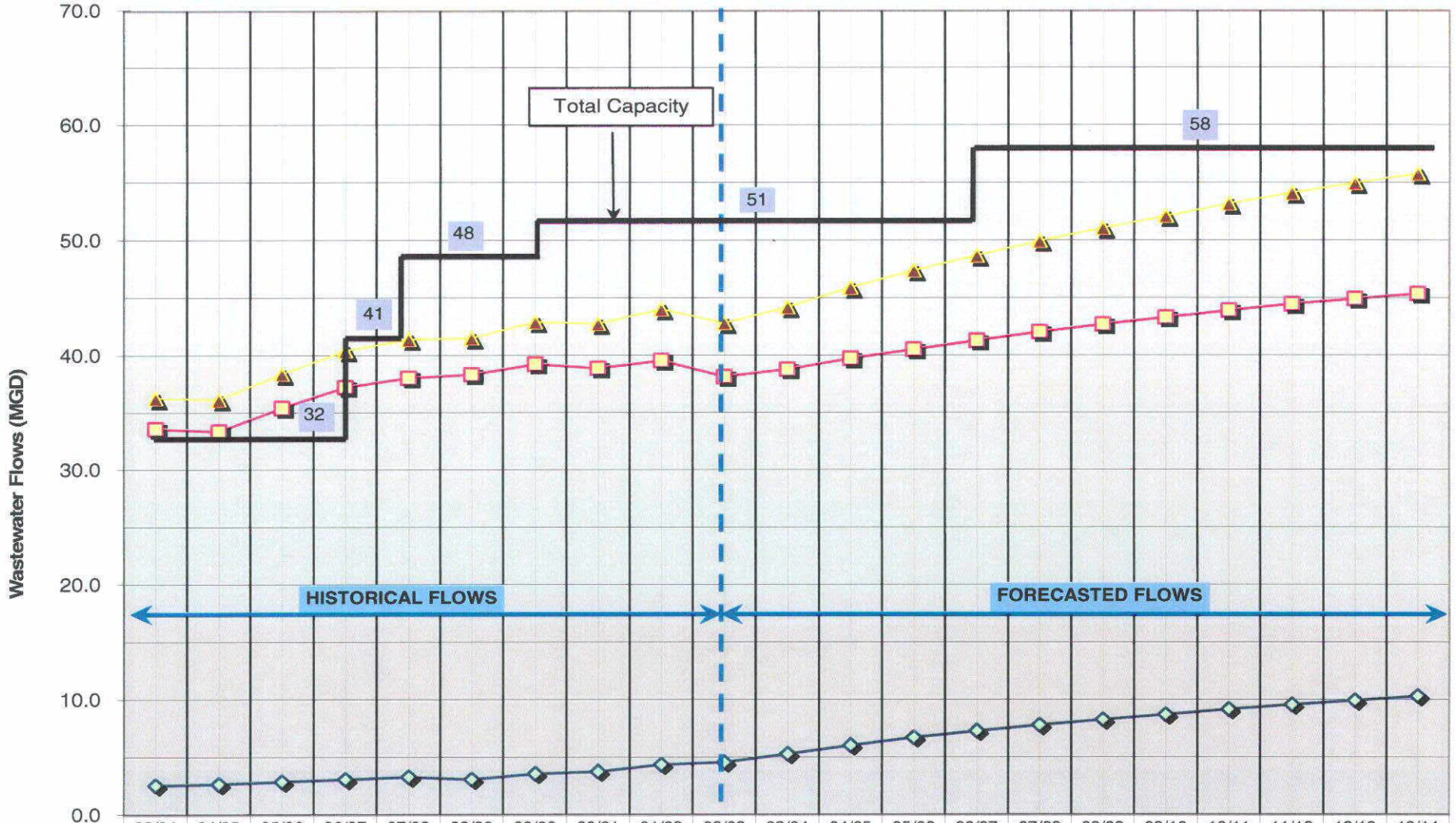
EXHIBITS

EXHIBIT I
UNADJUSTED SERVICE AREA FLOW FORECASTS



	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
RP-1	33.7	33.4	35.5	37.3	38.1	38.4	39.3	38.9	39.6	38.2	38.8	39.8	40.6	41.3	42.1	42.7	43.4	44.0	44.5	45.0	45.4
RP-4	2.6	2.7	2.9	3.1	3.3	3.1	3.6	3.8	4.4	4.6	5.3	6.1	6.8	7.3	7.8	8.3	8.7	9.2	9.6	10.0	10.4
CCWRF	5.4	6.8	7.0	7.6	7.2	8.1	8.7	9.3	9.5	10.1	10.3	10.4	10.5	10.6	10.6	10.7	10.8	10.8	10.9	11.0	11.0
RP-5/RP-2	5.0	4.7	4.4	4.5	4.2	4.5	4.2	4.1	3.8	4.0	4.2	4.5	4.9	5.6	6.3	7.0	7.6	8.1	8.6	9.0	9.5
Total Agency	46.7	47.6	49.8	52.5	52.8	54.1	55.8	56.1	57.3	56.9	58.7	60.8	62.7	64.8	66.9	68.8	70.5	72.2	73.6	75.0	76.3

EXHIBIT II
NORTHERN SERVICE AREA UNADJUSTED FLOW FORECAST

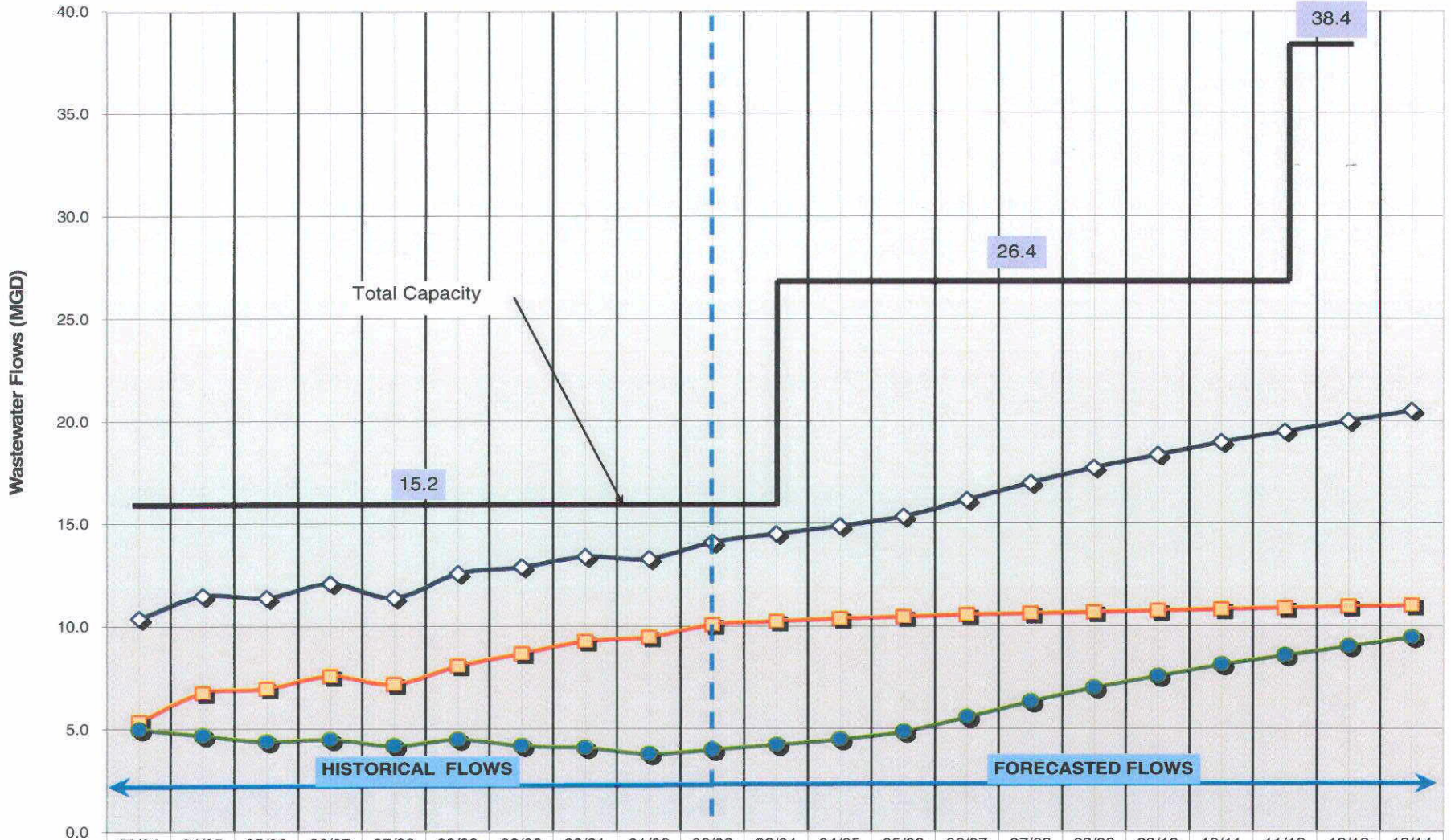


	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
RP-1	33.7	33.4	35.5	37.3	38.1	38.4	39.3	38.9	39.6	38.2	38.8	39.8	40.6	41.3	42.1	42.7	43.4	44.0	44.5	45.0	45.4
RP-4	2.6	2.7	2.9	3.1	3.3	3.1	3.6	3.8	4.4	4.6	5.3	6.1	6.8	7.3	7.8	8.3	8.7	9.2	9.6	10.0	10.4
NSA Total	36.3	36.1	38.4	40.4	41.4	41.5	42.9	42.7	44.0	42.8	44.2	45.9	47.4	48.7	49.9	51.1	52.1	53.2	54.1	55.0	55.8

Note: All Montclair Diversion flows shown in Southern Service Area.

Fiscal Year

EXHIBIT III
SOUTHERN SERVICE AREA UNADJUSTED FLOW FORECAST

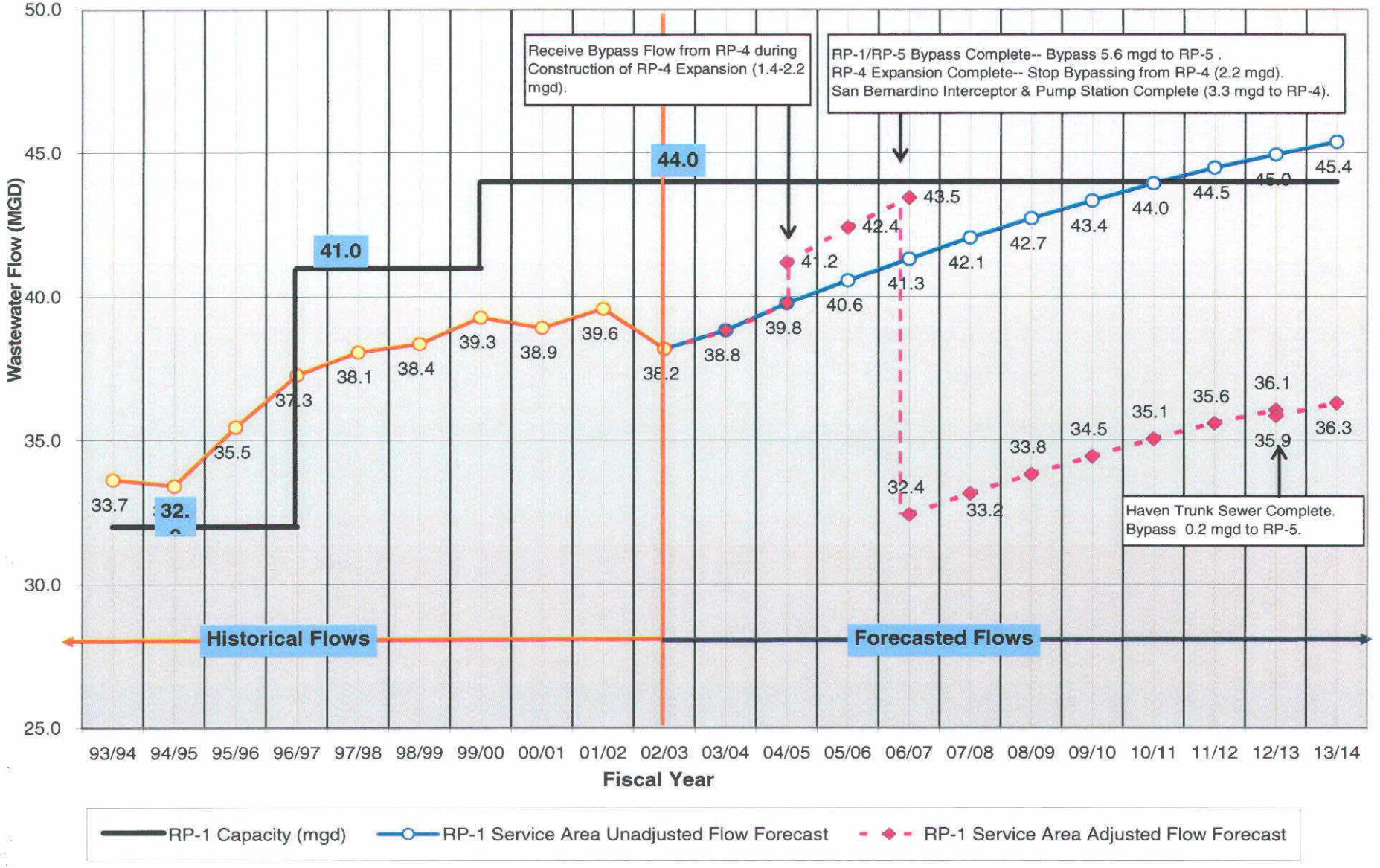


	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
CCWRF	5.4	6.8	7.0	7.6	7.2	8.1	8.7	9.3	9.5	10.1	10.3	10.4	10.5	10.6	10.6	10.7	10.8	10.8	10.9	11.0	11.0
RP-5/RP-2	5.0	4.7	4.4	4.5	4.2	4.5	4.2	4.1	3.8	4.0	4.2	4.5	4.9	5.6	6.3	7.0	7.6	8.1	8.6	9.0	9.5
SSA Total	10.4	11.5	11.4	12.1	11.4	12.6	12.9	13.4	13.3	14.1	14.5	14.9	15.4	16.2	17.0	17.7	18.4	19.0	19.5	20.0	20.5

Note: All Montclair Diversion flows shown in SSA.

Fiscal Year

EXHIBIT IV
RP-1 FLOW FORECAST



*Note: Capacity May be Limited to 5 MGD During Seasonal Periods of Recycled Water Use by Reliant Energy.

EXHIBIT V
RP-4 FLOW FORECAST

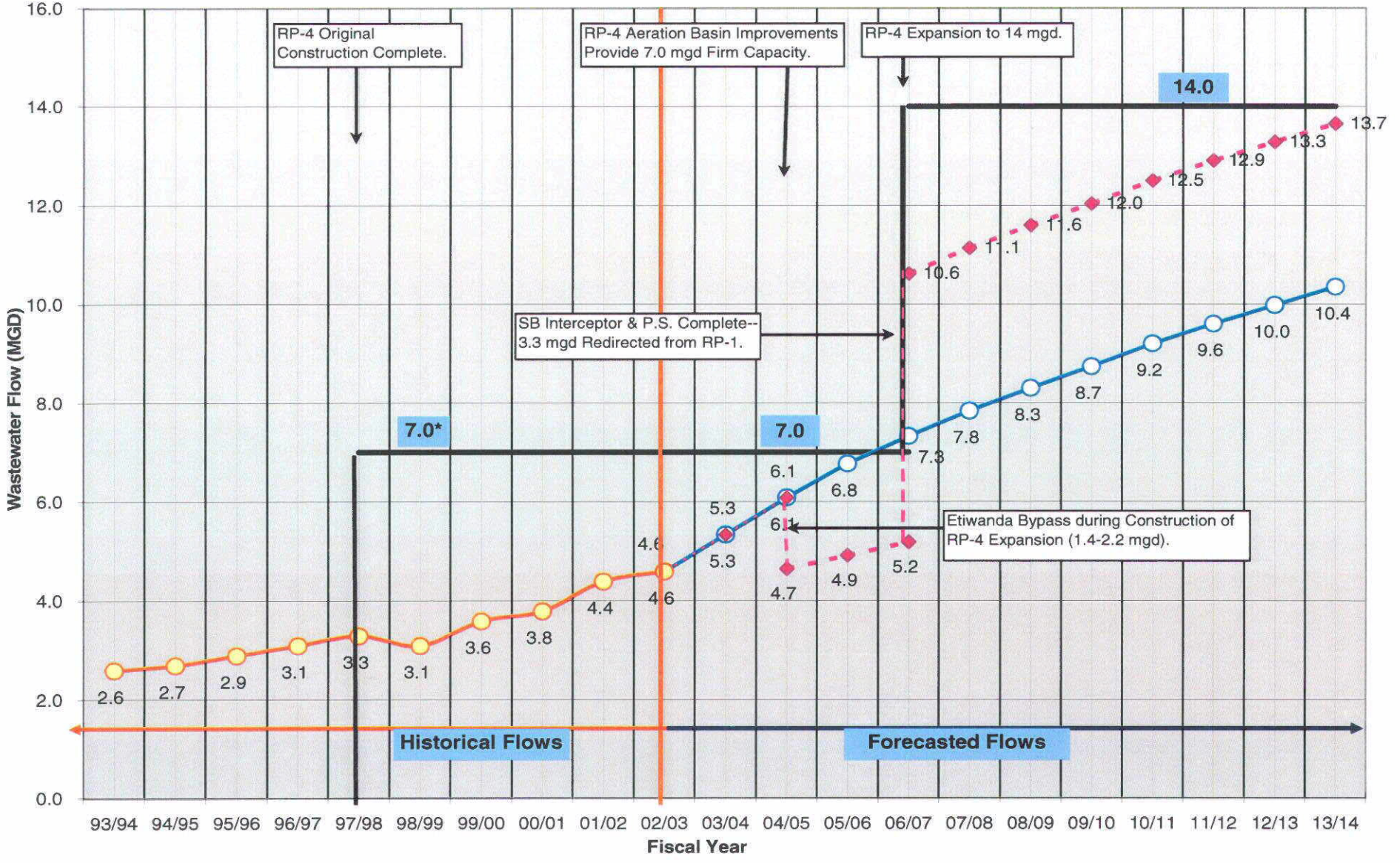


EXHIBIT VI
CCWRF FLOW FORECAST

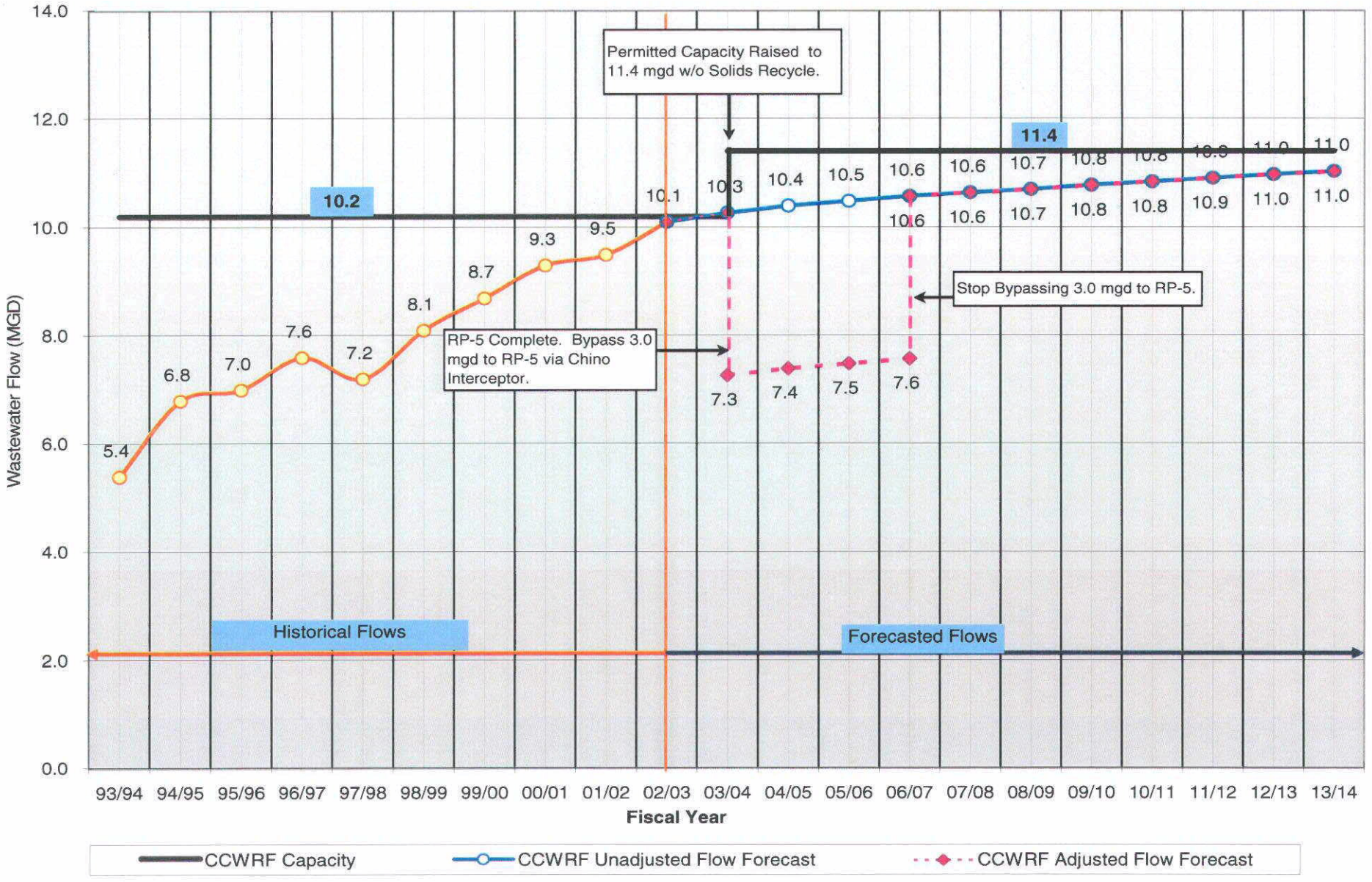


EXHIBIT VII
RP-5/RP-2 FLOW FORECAST

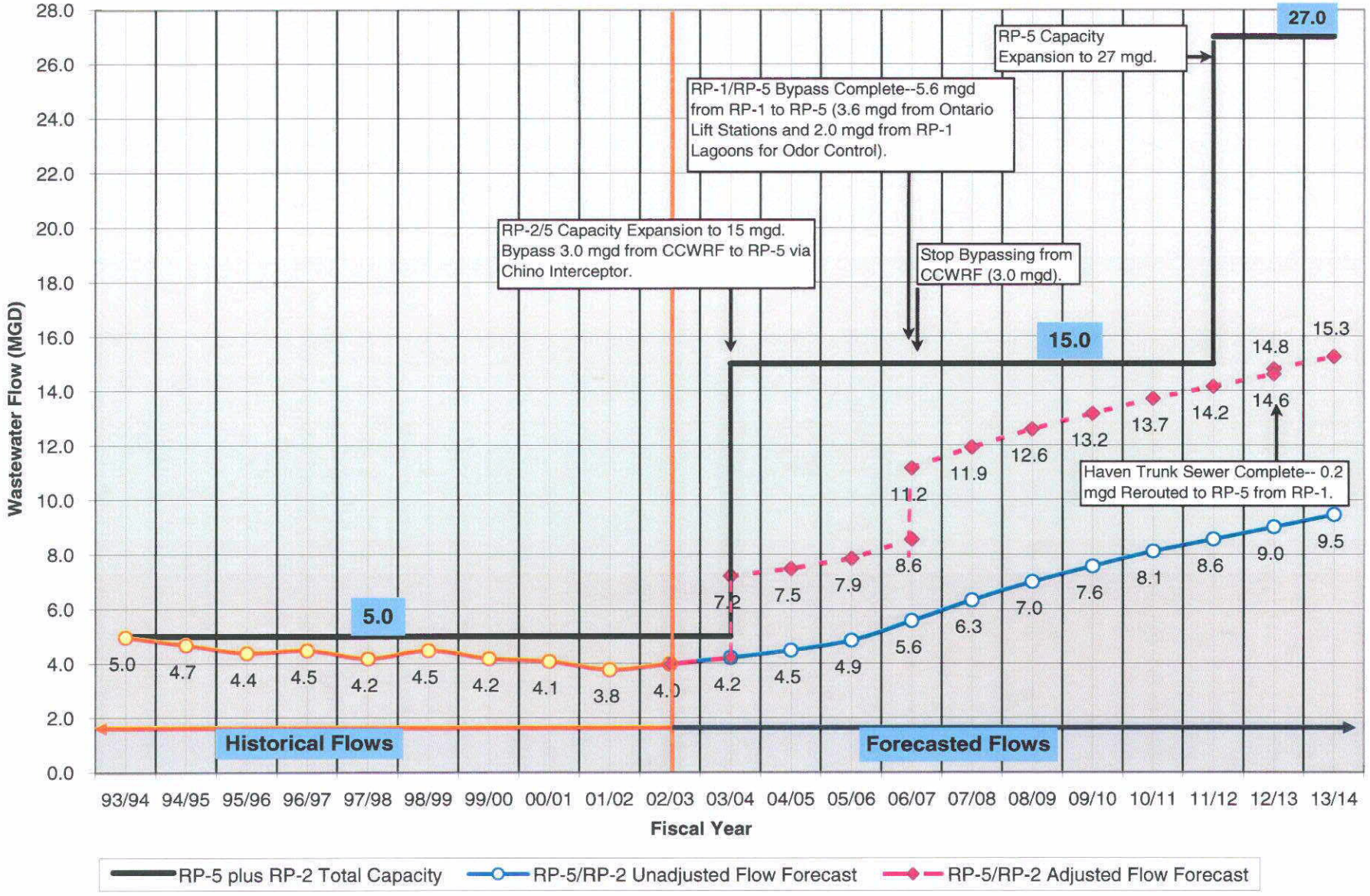


EXHIBIT VIII
REGIONAL DOMESTIC WASTE SYSTEM CAPITAL IMPROVEMENT (RC) FUND
SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2003/2004 PROJECTED ACTUAL	2004/2005 PROPOSED BUDGET	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/13	2013/2014	TOTAL 2004/2005 - 2013/2014
RECEIPTS												
Supplemental Capital Contributions	$0	$54,273,565	$55,279,994	$28,201,673	$15,255,210	$15,115,338	$26,701,866	$22,043,624	$4,391,501	$12,474,696	$28,435,446	$262,172,911
2002 Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	
Proceeds from the sale of property	8,701,672	0	0	0	0	0	0	0	0	0	0	
Proceeds from sale of Capacity Rights to CDA	1,572,593	3,149,907	0	0	0	0	0	0	0	0	0	$3,149,907
Tax Revenues	13,427,740	13,920,330	14,616,346	15,347,165	16,114,522	16,920,248	17,766,261	18,654,574	19,587,302	20,566,667	21,595,001	$175,088,415
Contract Work	67,700	1,600,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	$2,140,000
Lease Revenues	96,000	72,000	54,000	0	0	0	0	0	0	0	0	$126,000
Interest Revenue	1,585,480	1,488,928	1,406,500	1,447,133	1,453,790	1,299,800	1,232,737	1,094,385	885,734	1,004,499	1,143,470	$12,456,976
Grants	5,000	2,794,850	4,626,150	2,250,000	50,000	0	0	0	0	0	0	$9,721,000
Miscellaneous Revenue - Spec Sales/ WC Loan Repay	0	0	0	0	0	0	0	0	0	0	0	$0
TOTAL RECEIPTS	**$25,456,185**	**$77,299,580**	**$76,042,990**	**$47,305,971**	**$32,933,522**	**$33,395,386**	**$45,760,863**	**$41,852,583**	**$24,924,537**	**$34,105,862**	**$51,233,917**	**$464,855,211**
EXPENSES												
Operations and Administration	$1,938,574	$2,334,251	$2,398,861	$2,454,368	$2,520,887	$3,060,987	$2,568,488	$2,645,062	$2,723,932	$2,805,167	$2,888,839	$26,400,842
Interest Expense - SARI Capacity	49,670	47,307	44,801	42,145	39,330	36,347	36,346	33,183	29,831	29,831	29,831	$368,952
Interest Expense - 1994 Bonds	4,465,748	4,364,426	4,227,560	4,069,010	3,898,910	3,721,776	3,521,435	3,319,697	3,122,056	3,122,056	3,122,056	$36,488,982
Interest Expense - 1999 Bonds	1,467,643	1,431,934	1,393,084	1,350,986	1,305,739	1,256,876	1,204,276	1,147,686	1,087,145	1,087,145	1,087,145	$12,352,016
Interest Expense - 2002 Bonds	260,000	585,162	715,198	832,230	832,230	832,230	620,157	603,186	585,519	587,156	685,000	$6,858,068
Contract Work/Special Projects	179,104	2,267,177	2,249,598	1,970,602	288,020	70,000	90,000	90,000	90,000	90,000	90,000	$7,295,397
Monthly NRWS Capacity Fees	165,379	165,379	173,648	182,330	191,447	201,019	211,070	221,623	232,705	244,340	256,557	$2,080,118
TOTAL EXPENSES	**$8,526,118**	**$11,195,636**	**$11,202,750**	**$10,901,671**	**$9,076,563**	**$9,179,235**	**$8,251,773**	**$8,060,437**	**$7,871,187**	**$7,945,694**	**$8,159,427**	**$91,844,373**
CHANGES IN - LONG-TERM ASSETS												
Work In Progress - RC	$22,832,293	$60,793,717	$55,872,805	$30,115,936	$20,992,525	$19,470,785	$28,738,104	$33,920,674	$9,458,376	$15,057,128	$39,762,535	$314,182,585
Advance to Co-Composting Fund	0	0	0	0	0	0	0	0	0	0	0	
NET CHANGE, LONG-TERM ASSETS	**$22,832,293**	**$60,793,717**	**$55,872,805**	**$30,115,936**	**$20,992,525**	**$19,470,785**	**$28,738,104**	**$33,920,674**	**$9,458,376**	**$15,057,128**	**$39,762,535**	**$314,182,585**
LONG-TERM LIABILITIES												
Bonds Payable - 1994	$1,925,000	$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	$27,640,000
Bonds Payable - 1999	835,000	870,000	905,000	945,000	990,000	1,040,000	1,090,000	1,145,000	1,200,000	1,200,000	1,200,000	$10,585,000
Bonds Payable - 2002	480,000	500,000	520,000	540,000	565,000	585,000	610,000	635,000	660,000	685,000	685,000	$5,965,000
Other Long Term Liabilities - SAWPA Pipeline Capacity	39,393	41,756	44,262	46,917	49,732	49,732	52,716	55,879	59,231	59,231	59,231	$518,687
NET CHANGE, LONG-TERM LIABILITIES	**$3,279,393**	**$3,461,756**	**$3,654,262**	**$3,876,917**	**$4,119,732**	**$4,364,732**	**$4,642,716**	**$4,930,879**	**$5,209,231**	**$5,234,231**	**$5,234,231**	**$44,728,687**

EXHIBIT VIII
REGIONAL DOMESTIC WASTE SYSTEM CAPITAL IMPROVEMENT (RC) FUND
SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN									
	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/13	2013/2014	
	PROJECTED ACTUAL	PROPOSED BUDGET										TOTAL 2004/2005 - 2012/2013
OTHER FINANCING SOURCES (USES)												
Operating Transfer - Capital Contribution to GG	($1,024,689)	($696,535)	($498,382)	($465,135)	($424,967)	($424,967)	($372,631)	($376,631)	($466,000)	($466,000)	($466,000)	($4,657,248)
Operating Transfer - New Administration Center GG	0	0	0	0	0	0	0	0	0	0	0	$0
Operating Transfer - Capital Contribution to OC	(1,147,000)	1,592,000	346,000	116,000	125,000	135,000	406,000	417,000	431,000	442,000	456,000	$4,466,000
Operating Transfer - Capital/Admin Support, WC	(5,000,000)	0	1,000,000	0	0	(500,000)	0	0	0	(650,000)	0	($150,000)
Operating Transfer - Replacement Transfers 4 Rs - NC	(124,670)	(74,796)	(123,025)	(178,058)	(208,957)	(282,802)	(253,385)	(542,288)	(512,111)	(441,268)	(441,268)	($3,057,958)
Operating Transfer - Debt Service, Co-Composting	(3,367,144)	(575,838)	(650,827)	(719,316)	(729,316)	(744,316)	(632,879)	(616,593)	(585,658)	(567,295)	(548,098)	($6,370,136)
Operating Transfer - Debt Service, Recharge Water	(376,169)	(274,169)	(497,225)	(501,938)	(501,374)	(505,531)	(510,326)	(513,787)	(516,971)	(519,876)	(519,876)	($4,861,073)
Operating Transfer - Capital Contribution to CC	10,246,574	(10,246,574)	(6,660,000)	(3,205,000)	2,190,000	2,190,000	(400,000)	(400,000)	(400,000)	(500,000)	(400,000)	($17,831,574)
Operating Transfer - Loan Payment from WC	0	0	0	0	0	0	0	0	0	0	0	$0
Operating Transfer - Replacement Capital from RO/TO	1,494,556	2,679,767	1,373,120	1,236,820	20,791	0	0	2,144,674	17,923	41,888	338,331	$7,853,314
Operating Transfer - Property Tax Recovery	1,039,029	1,072,325	1,105,818	1,139,846	1,207,729	1,240,150	1,246,350	1,252,582	1,258,845	1,265,139	1,271,465	$12,060,249
Operating Transfer - Obligation Payment	(103,000)	(90,890)	437,360	(111,089)	(120,665)	(78,156)	(81,736)	(82,553)	(83,379)	(84,213)	(85,054)	($380,373)
Adjustment	0	0	0	0	0	0	0	0	0	0	0	$0
Operating Transfer - Recharge Water Fund	(500,000)	(1,000,000)	0	0	0	0	0	0	0	0	0	($1,000,000)
Operating Transfer - Loan Payment from RO	0	0	0	0	0	0	0	0	0	0	0	$0
TOTAL OTHER FINANCING SOURCES (USES)	**$1,137,487**	**($7,614,710)**	**($4,167,161)**	**($2,687,870)**	**$1,558,241**	**$1,029,378**	**($598,607)**	**$1,282,404**	**($856,351)**	**($1,479,625)**	**($394,500)**	**($13,928,801)**
INCREASE (DECREASE) IN WORKING CAPITAL RESERVES	**($8,044,131)**	**($8,950,239)**	**$714,012**	**($503,423)**	**$52,943**	**$1,140,012**	**$5,523,663**	**($4,194,003)**	**$1,098,392**	**$3,947,184**	**($2,772,776)**	**($3,944,235)**
WORKING CAPITAL SUMMARY												
Beginning Balance July 01	$27,573,042	$19,528,911	$10,578,672	$11,292,684	$10,789,261	$10,842,204	$11,982,216	$17,505,879	$13,311,876	$14,410,268	$18,357,452	
Reserve Increase/(Decrease)	(8,044,131)	(8,950,239)	714,012	(503,423)	52,943	1,140,012	5,523,663	(4,194,003)	1,098,392	3,947,184	(2,772,776)	**($3,944,235)**
ENDING BALANCE AT JUNE 30	**$19,528,911**	**$10,578,672**	**$11,292,684**	**$10,789,261**	**$10,842,204**	**$11,982,216**	**$17,505,879**	**$13,311,876**	**$14,410,268**	**$18,357,452**	**$15,584,676**	
IEUA RESERVE BALANCE SUMMARY												
Capital Asset & Construction	$10,133,157	$1,676,365	$1,718,459	$1,712,763	$1,770,687	$1,765,618	$1,855,240	$1,724,205	$1,764,260	$1,718,077	$1,756,004	
Capital Cash Flow Support	702,363	185,947	863,581	366,502	361,868	350,000	5,784,041	1,721,073	2,779,410	6,772,777	3,962,074	
Bond Requirement	0	0	0	0	0	0	0	0	0	0	0	
ENDING BALANCE AT JUNE 30	**$19,528,911**	**$10,578,672**	**$11,292,684**	**$10,789,261**	**$10,842,204**	**$11,982,216**	**$17,505,879**	**$13,311,876**	**$14,410,268**	**$18,357,452**	**$15,584,676**	
MEMBER AGENCY RESERVE BALANCE SUMMARY												
Connection Fees Balance, July 1	$37,357,953	$62,317,953	$32,450,638	$2,309,082	$0	$10,347,384	$15,010,049	$8,679,527	$7,618,387	$24,838,845	$34,624,466	
New EDU Connection Fees (see below calculation)	24,960,000	24,406,250	25,138,438	25,892,591	25,602,594	19,778,004	20,371,344	20,982,484	21,611,959	22,260,317	22,928,127	$228,972,108
IEUA Capital Call	0	(54,273,565)	(55,279,994)	(28,201,673)	(15,255,210)	(15,115,338)	(26,701,866)	(22,043,624)	(4,391,501)	(12,474,696)	(28,435,446)	($262,172,913)
Member Agency Reserve Ending Balance	**$62,317,953**	**$32,450,638**	**$2,309,082**	**$0**	**$10,347,384**	**$15,010,050**	**$8,679,527**	**$7,618,387**	**$24,838,845**	**$34,624,466**	**$29,117,147**	

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

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/20010	2010/2011	2011/2012	2012/2013	2013/2014	Total
	PROJECTED ACTUAL	PROPOSED BUDGET										2004/2005 - 2013/2014
RECEIPTS												
Contract Work	$70,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$150,000
Grants	1,421,313	7,132,885	14,539,711	6,401,327	4,018,761	3,521,729	2,471,736	678,040	0	0	6,000,000	$44,764,188
State Loans	4,015,136	16,292,121	10,623,256	5,583,095	2,379,262	1,853,252	2,765,758	621,537	2,000,000	2,000,000	0	$44,118,280
Loan Proceeds - WW	0	0	0	0	0	0	0	0	0	0	0	
Interest Revenue	37,275	37,207	42,833	28,697	34,518	41,659	48,910	56,622	70,564	81,904	193,116	$636,030
Other Revenue	0	0	0	0	0	0	0	0	0	0	0	
TOTAL RECEIPTS	$5,543,724	$23,477,213	$25,220,800	$12,028,119	$6,447,541	$5,431,640	$5,301,403	$1,371,198	$2,085,564	$2,096,904	$6,208,116	$89,668,499
EXPENSES												
Operations / Administrative Expenses	$376,804	$707,925	$725,508	$743,619	$762,274	$785,006	$804,796	$825,181	$846,176	$870,170	$892,445	$7,963,100
Interest Expense	0	50,189	302,065	614,056	772,955	830,358	819,875	780,807	740,762	699,715	657,643	$6,268,425
Contract Work	15,000	15,000	15,000	15,000	15,000	15,000	0	0	0	0	0	$75,000
Special Projects	240,084	689,000	436,870	342,300	300,000	300,000	0	0	0	0	0	$2,068,170
TOTAL EXPENSES	$631,888	$1,462,114	$1,479,443	$1,714,976	$1,850,228	$1,930,364	$1,624,671	$1,605,987	$1,586,938	$1,569,886	$1,550,088	$16,374,695
CHANGES IN - LONG-TERM ASSETS												
Work In Progress	$8,838,100	$21,586,250	$25,306,439	$11,099,671	$5,451,817	$4,776,528	$5,424,041	$1,687,175	$311,385	$274,592	$3,942,911	$79,840,809
NET CHANGE, LONG-TERM ASSETS	$8,838,100	$21,586,250	$25,306,439	$11,099,671	$5,451,817	$4,776,528	$5,424,041	$1,687,175	$311,385	$274,592	$3,942,911	$79,840,809
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	0	78,591	478,041	997,248	1,310,035	1,467,410	1,582,734	1,601,802	1,641,847	1,682,893	1,724,965	$12,545,565
NET CHANGE, SHORT-TERM LIABILITIES	$0	$78,591	$478,041	$997,248	$1,310,035	$1,467,410	$1,582,734	$1,601,802	$1,641,847	$1,682,893	$1,724,965	$12,545,565
OTHER FINANCING SOURCES (USES)												
Operating Transfer - Loan Payment to RC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Operating Transfer - Capital Contribution-RC	5,000,000	0	(1,000,000)	0	0	500,000	0	0	0	650,000	0	$150,000
Operating Transfer - Operation Support -WO	200,000	300,000	700,000	1,100,000	1,800,000	2,200,000	2,950,000	3,200,000	1,650,000	1,000,000	1,000,000	$15,900,000
Transfer Projects from WC to RW	0	0	0	0	0	0	0	0	0	0	0	
TOTAL OTHER FINANCING SOURCES (USES)	$5,200,000	$300,000	($300,000)	$1,100,000	$1,800,000	$2,700,000	$2,950,000	$3,200,000	$1,650,000	$1,650,000	$1,000,000	$16,050,000
INCREASE (DECREASE) IN WORKING CAPITAL RESERVES	$1,273,736	$670,258	($2,343,123)	($683,775)	($364,539)	($42,661)	($360,043)	($323,766)	$195,394	$219,533	($9,848)	($3,042,570)
WORKING CAPITAL SUMMARY												
Beginning Balance July 01	$2,522,786	$3,796,522	$4,466,780	$2,123,657	$1,439,882	$1,075,343	$1,032,682	$672,639	$348,873	$544,267	$763,800	
Reserve Increase/(Decrease)	1,273,736	670,258	(2,343,123)	(683,775)	(364,539)	(42,661)	(360,043)	(323,766)	195,394	219,533	(9,848)	
ENDING BALANCE AT JUNE 30	$3,796,522	$4,466,780	$2,123,657	$1,439,882	$1,075,343	$1,032,682	$672,639	$348,873	$544,267	$763,800	$753,952	
RESERVE BALANCE SUMMARY												
Debt Service Reserve	$3,696,522	$4,366,780	$2,023,657	$1,339,882	$975,343	$932,682	$572,639	$248,873	$444,267	$663,800	$653,952	
Capital Replacement	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	
ENDING BALANCE AT JUNE 30	$3,796,522	$4,466,780	$2,123,657	$1,439,882	$1,075,343	$1,032,682	$672,639	$348,873	$544,267	$763,800	$753,952	

EXHIBIT X
RECHARGE WATER CAPITAL IMPROVEMENT (RW) FUND
SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/20010	2010/2011	2011/2012	2012/2013	2013/2014	Total
	PROJECTED ACTUAL	PROPOSED BUDGET										2004/2005 - 2013/2014
RECEIPTS												
2002 Bond Proceeds, Net	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Grants- Prop 13	869,970	16,176,693	0	0	0	0	0	0	0	0	0	$16,176,693
Contract Cost Reimbursements - Debt Service (WM)	376,169	274,169	497,225	501,938	501,374	505,531	509,550	513,290	516,751	519,935	512,840	$4,852,603
Contract Cost Reimbursements - Operation (WM)	0	0	0	0	0	0	0	0	0	0	0	$0
Interest Revenue	79,803	8,929	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	$80,929
Other Revenue	0	0	0	0	0	0	0	0	0	0	0	$0
TOTAL RECEIPTS	**$1,325,942**	**$16,459,791**	**$505,225**	**$509,938**	**$509,374**	**$513,531**	**$517,550**	**$521,290**	**$524,751**	**$527,935**	**$520,840**	$21,110,225
EXPENSES												
Professional Fees and Services	$15,250	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Recharge Water Facilities Operation & Maintenance	0	0	0	0	0	0	0	0	0	0	0	$0
Financial Expenses	231,224	509,814	594,449	583,877	572,748	561,063	549,099	536,579	523,503	509,870	495,680	$5,436,682
Special Project - Non Reimb IEUA Admin Costs	113,184	0	0	0	0	0	0	0	0	0	0	$0
Staff Labor, Burden & Overhead	41,029	0	0	0	0	0	0	0	0	0	0	$0
TOTAL EXPENSES	**$400,687**	**$509,814**	**$594,449**	**$583,877**	**$572,748**	**$561,063**	**$549,099**	**$536,579**	**$523,503**	**$509,870**	**$495,680**	$5,436,682
CHANGES IN - LONG-TERM ASSETS												
Work-In-Progress	$18,446,070	$16,942,897	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,942,897
NET CHANGE, LONG-TERM ASSETS	**$18,446,070**	**$16,942,897**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	$16,942,897
LONG-TERM LIABILITIES												
Bonds Payable - 2002A Bonds	$369,491	$383,051	$400,000	$420,000	$430,000	$450,000	$470,000	$490,000	$510,000	$530,000	$530,000	$4,613,051
NET CHANGE, LONG-TERM LIABILITIES	**$369,491**	**$383,051**	**$400,000**	**$420,000**	**$430,000**	**$450,000**	**$470,000**	**$490,000**	**$510,000**	**$530,000**	**$530,000**	$4,613,051
OTHER FINANCING SOURCES (USES)												
Operating Transfers - Debt Service,"RC" Fund	$376,169	$274,169	$497,225	$501,938	$501,374	$505,531	$509,550	$513,290	$516,751	$519,935	$512,840	$4,852,603
Operation Transfer- Administration Support, "RC" Fund	500,000	1,000,000	0	0	0	0	0	0	0	0	0	$1,000,000
TOTAL OTHER FINANCING SOURCES (USES)	**$876,169**	**$1,274,169**	**$497,225**	**$501,938**	**$501,374**	**$505,531**	**$509,550**	**$513,290**	**$516,751**	**$519,935**	**$512,840**	$5,852,603
INCREASE (DECREASE) IN WORKING CAPITAL RESERVES	**($17,014,137)**	**($101,802)**	**$8,001**	**$7,999**	**$8,000**	**$7,999**	**$8,001**	**$8,001**	**$7,999**	**$8,000**	**$8,000**	($29,802)
WORKING CAPITAL SUMMARY												
Beginning Balance July 01	$17,469,725	$65,141	($36,661)	($28,660)	($20,661)	($12,661)	-$4,662	$3,339	$11,340	$19,339	$27,339	
Reserve Increase/(Decrease)	(17,014,137)	(101,802)	8,001	7,999	8,000	7,999	8,001	8,001	7,999	8,000	8,000	
ENDING BALANCE AT JUNE 30	**$455,588**	**($36,661)**	**($28,660)**	**($20,661)**	**($12,661)**	**($4,662)**	**$3,339**	**$11,340**	**$19,339**	**$27,339**	**$35,339**	
RESERVE BALANCE SUMMARY												
Operation Contingencies	$455,588	($36,661)	($28,660)	($20,661)	($12,661)	($4,662)	$3,339	$11,340	$19,339	$27,339	$35,339	
Capital Construction	0	0	0	0	0	0	0	0	0	0	0	
ENDING BALANCE AT JUNE 30	**$455,588**	**($36,661)**	**($28,660)**	**($20,661)**	**($12,661)**	**-$4,662**	**$3,339**	**$11,340**	**$19,339**	**$27,339**	**$35,339**	

EXHIBIT XI
NON-RECLAIMABLE WASTEWATER CAPITAL IMPROVEMENT (NC) FUND
SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/20010	2010/2011	2011/2012	2012/2013	2013/2014	Total
	PROJECTED ACTUAL	PROPOSED BUDGET										2004/2005 - 2013/2014
REVENUES												
Capacity Fees - NRWS Users	$1,087,430	$1,486,522	$1,129,845	$1,345,476	$1,579,568	$2,089,106	$1,865,352	$1,784,860	$1,569,230	$1,058,215	$1,056,771	$14,964,945
User Charges - Regional Program	165,370	466,088	354,255	421,864	495,262	655,024	584,868	559,630	492,020	331,795	331,343	$4,692,148
Capacity Fees - Admin Service Charge	0	362,805	275,753	328,381	385,514	509,873	455,263	435,618	382,991	258,271	257,918	
Sale of Capacity Units - NRWS Users	3,796,958	6,340,000	0	0	0	0	0	0	0	0	0	$6,340,000
Contract Work/Misc Other Revenue	29,702	13,200	38,876	39,614	40,423	35,306	36,273	25,000	25,000	25,000	25,000	$303,692
Interest Revenue	92,168	106,548	147,894	112,631	114,906	98,028	87,518	82,961	78,656	75,517	1,500	$908,159
TOTAL REVENUES	**$5,171,628**	**$8,777,163**	**$1,946,623**	**$2,247,966**	**$2,615,673**	**$3,387,337**	**$3,029,274**	**$2,888,069**	**$2,547,897**	**$1,748,798**	**$1,672,532**	$30,861,331
EXPENSES												
Operations	$53,628	$108,782	$111,985	$115,011	$118,400	$121,891	$125,488	$129,193	$133,008	$136,939	140,987	$1,241,684
Interest Expenses	188,333	94,613	89,602	84,291	78,661	72,693	66,367	59,661	52,554	45,019	37,033	$680,494
Contract Work	12,673	31,000	31,000	31,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	$135,000
TOTAL EXPENSES	**$254,634**	**$234,395**	**$232,587**	**$230,302**	**$203,061**	**$200,584**	**$197,855**	**$194,854**	**$191,562**	**$187,958**	**$184,020**	$2,057,178
CHANGES IN - LONG-TERM ASSETS												
Work-In-Progress	405,000	2,211,016	3,326,714	111,956	20,000	20,000	20,000	20,000	20,000	20,000	20,000	$5,789,686
CSDLAC 4Rs	1,131,500	2,013,000	1,530,000	1,822,000	2,139,000	2,829,000	2,526,000	2,417,000	2,125,000	1,433,000	1,431,045	$20,265,045
NET CHANGE, LONG-TERM ASSETS	**$1,536,500**	**$4,224,016**	**$4,856,714**	**$1,933,956**	**$2,159,000**	**$2,849,000**	**$2,546,000**	**$2,437,000**	**$2,145,000**	**$1,453,000**	**$1,451,045**	$26,054,731
LONG-TERM LIABILITIES												
CSDLAC Note	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0	
GG Note Payable	4,000,000	0	0	0	0	0	0	0	0	0	0	
SARI Pipeline Capacity Note	78,785	83,512	88,523	93,835	99,465	105,432	111,758	118,463	125,570	133,105	141,091	$1,100,754
NET CHANGE, LONG-TERM LIABILITIES	**$4,078,785**	**$83,512**	**$88,523**	**$93,835**	**$99,465**	**$105,432**	**$111,758**	**$118,463**	**$125,570**	**$133,105**	**$141,091**	$1,100,754
OTHER FINANCING SOURCES (USES)												
Capital Equipment Transfer (GG)	($63,997)	($54,103)	($29,563)	($33,937)	($30,222)	($31,006)	($27,200)	($27,480)	($34,000)	($30,000)	(30,000)	($327,511)
Capital Replacement Transfers - from NO	0	(450,000)	(1,070,000)	(1,100,000)	(800,000)	(800,000)	(300,000)	(260,000)	(230,000)	0	0	($5,010,000)
Capital Replacement Transfers - from RC	105,217	0	0	0	0	0	0	0	0	0	0	$0
Operation Support Transfers to NO	0	0	0	0	0	0	0	0	0	0	0	$0
TOTAL OTHER FINANCING SOURCES (USES)	**$41,220**	**($504,103)**	**($1,099,563)**	**($1,133,937)**	**($830,222)**	**($831,006)**	**($327,200)**	**($287,480)**	**($264,000)**	**($30,000)**	**($30,000)**	($5,337,511)
INCREASE (DECREASE) IN WORKING CAPITAL RESERVES	**($657,071)**	**$3,731,137**	**($4,330,764)**	**($1,144,064)**	**($676,075)**	**($598,685)**	**($153,539)**	**($149,728)**	**($178,235)**	**($55,265)**	**($133,624)**	($3,688,843)
WORKING CAPITAL SUMMARY												
Beginning Balance July 01	$6,863,383	6,206,312	9,937,448	5,606,685	4,462,620	3,786,545	3,187,860	3,034,321	2,884,593	2,706,358	2,651,092	
Reserve Increase/(Decrease)	(657,071)	3,731,137	(4,330,764)	(1,144,064)	(676,075)	(598,685)	(153,539)	(149,728)	(178,235)	(55,265)	(133,624)	
ENDING BALANCE AT JUNE 30	**$6,206,312**	**$9,937,448**	**$5,606,685**	**$4,462,620**	**$3,786,545**	**$3,187,860**	**$3,034,321**	**$2,884,593**	**$2,706,358**	**$2,651,092**	**$2,517,469**	
RESERVE BALANCE SUMMARY												
Operating Contingency	$84,878	$78,132	$77,529	$76,767	$67,687	$66,861	$65,952	$64,951	$63,854	$62,653	61,340	
Capital Expansion	6,121,434	9,859,317	5,529,156	4,385,853	3,718,858	3,120,999	2,968,370	2,819,642	2,642,505	2,588,441	2,456,130	
ENDING BALANCE AT JUNE 30	**$6,206,312**	**$9,937,448**	**$5,606,685**	**$4,462,621**	**$3,786,545**	**$3,187,860**	**$3,034,322**	**$2,884,594**	**$2,706,359**	**$2,651,094**	**$2,517,470**	

EXHIBIT XII

CO-COMPOSTING CAPITAL IMPROVEMENT (CC) FUND

SOURCES AND USES OF FUNDS

		TEN-YEAR PLAN CAPITAL IMPROVEMENT PLAN										
	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	TOTAL
	PROJECTED ACTUAL	PROPOSED BUDGET	FORECAST									2004/2005 - 2013/2014
RECEIPTS												
Other Revenues	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Sales of Property	1,049,000	0	8,158,000	0	2,339,250	2,339,250	0	0	0	0	0	12,836,500
Advance Proceeds - RC Funds	0	0	0	0	0	0	0	0	0	0	0	
Interest Revenue	257,764	56,179	25,589	6,555	7,208	7,690	12,443	12,493	11,391	12,505	13,375	165,428
Contract Cost Reimbursement	387	0	0	0	0	0	0	0	0	0	0	
TOTAL RECEIPTS	**$1,307,151**	**$56,179**	**$8,183,589**	**$6,555**	**$2,346,458**	**$2,346,940**	**$12,443**	**$12,493**	**$11,391**	**$12,505**	**$13,375**	$13,001,928
EXPENSES												
Professional Fees and Services	$4,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$7,000	$70,000
Cost Reimbursable Contracts	387	0	0	0	0	0	0	0	0	0	0	$0
Special Projects	5,982	22,762	10,000	10,000	10,000	0	0	0	0	0	0	$52,762
Financial and Interest Expenses	307,144	325,838	390,827	449,316	449,316	449,316	449,316	449,316	449,316	449,316	449,316	$4,311,193
Write-off Project Expense	0	0	0	0	0	0	0	0	0	0	0	
Staff's Salaries/Burden/OH & Other Allocations	108,061	136,224	140,308	144,519	148,855	153,320	157,920	162,657	167,537	172,563	177,740	$1,561,844
TOTAL EXPENSES	**$425,574**	**$491,824**	**$548,135**	**$610,835**	**$615,171**	**$609,636**	**$614,236**	**$618,973**	**$623,853**	**$628,879**	**$634,056**	$5,995,599
CHANGES IN - LONG-TERM ASSETS												
Receivable - Stockpile Cover Loans	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Investment in IERCA	1,000,000	11,500,000	15,774,800	3,000,000	0	0	0	0	0	0	0	30,274,800
Work in Progress	23,679	532,321	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	964,321
NET CHANGE, LONG-TERM ASSETS	**$1,023,679**	**$12,032,321**	**$15,822,800**	**$3,048,000**	**$48,000**	**$48,000**	**$48,000**	**$48,000**	**$48,000**	**$48,000**	**$48,000**	$31,239,121
CHANGES IN - LONG-TERM LIABILITIES												
Co-Composting Bonds -1990/2002A	$3,060,000	$250,000	$260,000	$270,000	$280,000	$295,000	$305,000	$315,000	$292,829	$283,648	$274,049	$2,825,525
NET CHANGE, LONG-TERM LIABILITIES	**$3,060,000**	**$250,000**	**$260,000**	**$270,000**	**$280,000**	**$295,000**	**$305,000**	**$315,000**	**$292,829**	**$283,648**	**$274,049**	$2,825,525
OTHER FINANCING SOURCES (USES)												
Operating Transfer - Debt Service	$3,367,144	$575,838	$650,827	$719,316	$729,316	$744,316	$632,879	$616,593	$585,658	$567,295	$548,098	$6,370,135
Operating Transfer - Capital Contribution-RC	(10,246,574)	10,246,574	6,660,000	3,205,000	(2,190,000)	(2,190,000)	400,000	400,000	400,000	500,000	400,000	17,831,574
TOTAL OTHER FINANCING SOURCES (USES)	**($6,879,430)**	**$10,822,412**	**$7,310,827**	**$3,924,316**	**($1,460,684)**	**($1,445,684)**	**$1,032,879**	**$1,016,593**	**$985,658**	**$1,067,295**	**$948,098**	24,201,709
INCREASE (DECREASE) IN WORKING CAPITAL RESERVES	($10,081,532)	($1,895,554)	($1,136,519)	$2,036	($57,397)	($51,380)	$78,086	$47,112	$32,367	$119,273	$5,368	($2,856,608)
WORKING CAPITAL SUMMARY												
Beginning Balance July 02	$13,276,451	$3,194,919	$1,299,365	$162,846	$164,882	$107,485	$56,105	$134,191	$181,304	$213,670	$332,944	
Reserve Increase/(Decrease)	(10,081,532)	(1,895,554)	(1,136,519)	2,036	(57,397)	(51,380)	78,086	47,112	32,367	119,273	5,368	
ENDING BALANCE AT JUNE 30	**$3,194,919**	**$1,299,365**	**$162,846**	**$164,882**	**$107,485**	**$56,105**	**$134,191**	**$181,304**	**$213,670**	**$332,944**	**$338,311**	
RESERVE BALANCE SUMMARY												
Capital Replacement	3,194,919	1,299,365	162,846	164,882	107,485	56,105	134,191	181,304	213,670	332,944	338,311	
ENDING BALANCE AT JUNE 30	**$3,194,919**	**$1,299,365**	**$162,846**	**$164,882**	**$107,485**	**$56,105**	**$134,191**	**$181,304**	**$213,670**	**$332,944**	**$338,311**	

EXHIBIT XIII
ORGANICS MANAGEMENT CAPITAL IMPROVEMENT (OC) FUND
SOURCES AND USES OF FUNDS

		TEN-YEAR CAPITAL IMPROVEMENT PLAN										
	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	TOTAL
	PROJECTED ACTUAL	PROPOSED BUDGET	FORECAST									2004/2005 - 2013/2014
RECEIPTS												
Grants	$0	$1,440,000	$1,560,000	$257,725	$257,725	$257,725	$0	$0	$0	$0	$0	$3,773,175
Interest Income	1,320	1,698	2,120	2,495	2,874	3,268	3,384	3,473	3,602	3,687	3,792	$30,393
Other Revenue	0	0	0	0	0	0	0	0	0	0	0	$0
TOTAL RECEIPTS	**$1,320**	**$1,441,698**	**$1,562,120**	**$260,220**	**$260,599**	**$260,993**	**$3,384**	**$3,473**	**$3,602**	**$3,687**	**$3,792**	$3,803,568
EXPENSES												
Office & Administrative	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Professional Services	35,000	38,000	38,000	38,000	38,000	38,000	39,140	40,314	41,524	42,769	44,052	$397,800
Capacity Charges - NRW System	0	0	0	0	0	0	0	0	0	0	0	
Write-off Project Expense	0	0	0	0	0	0						
Special Projects	85,410	54,590	0	0	0	0	0	0	0	0	0	$54,590
Staff's Salaries/Burden/OH & Other Allocations	195,673	315,392	324,854	334,601	344,639	354,979	365,628	376,597	387,895	399,532	411,518	$3,615,635
TOTAL EXPENSES	**$316,083**	**$407,982**	**$362,854**	**$372,601**	**$382,639**	**$392,979**	**$404,768**	**$416,911**	**$429,419**	**$442,301**	**$455,570**	$4,068,025
CHANGES IN - LONG-TERM ASSETS												
Work in Progress	$1,009,831	$2,595,426	$1,560,000	$0	$0	$0	$0	$0	$0	$0	$0	$4,155,426
NET CHANGE, LONG-TERM ASSETS	**$1,009,831**	**$2,595,426**	**$1,560,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	$4,155,426
OTHER FINANCING SOURCES (USES)												
Operating Transfer - Capital Support GG/OC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Operating Transfer - Capital Support RC/OC	1,147,000	1,592,000	346,000	116,000	125,000	135,000	406,000	417,000	431,000	442,000	456,000	4,466,000
Operating Transfer - Operation Support OC/DO	0	0	0	0	0	0	0	0	0	0	0	
TOTAL OTHER FINANCING SOURCES (USES)	**$1,147,000**	**$1,592,000**	**$346,000**	**$116,000**	**$125,000**	**$135,000**	**$406,000**	**$417,000**	**$431,000**	**$442,000**	**$456,000**	$4,466,000
INCREASE (DECREASE) IN WORKING CAPITAL RESERVES	**($177,594)**	**$30,290**	**($14,734)**	**$3,619**	**$2,960**	**$3,014**	**$4,616**	**$3,562**	**$5,183**	**$3,386**	**$4,222**	$46,117
WORKING CAPITAL SUMMARY												
Beginning Balance July 02	$283,173	$105,579	$135,869	$121,135	$124,754	$127,714	$130,728	$135,344	$138,906	$144,089	$147,475	
Reserve Increase/(Decrease)	(177,594)	30,290	(14,734)	3,619	2,960	3,014	4,616	3,562	5,183	3,386	4,222	
ENDING BALANCE AT JUNE 30	**$105,579**	**$135,869**	**$121,135**	**$124,754**	**$127,714**	**$130,728**	**$135,344**	**$138,906**	**$144,089**	**$147,475**	**$151,696**	
RESERVE BALANCE SUMMARY												
Capital/Operation Contingencies	**$105,579**	**$135,869**	**$121,135**	**$124,754**	**$127,714**	**$130,728**	**$135,344**	**$138,906**	**$144,089**	**$147,475**	**$151,696**	

APPENDIX A

INCREMENTAL EDU GROWTH DATA

APPENDIX A
2003/04 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-2/RP-5		RP-5		SUM
	6/30/02 Baseline	**12,683**		**15,745**		**19,262**								**47,690**
	6/30/03 Baseline	**13,411**		**16,640**		**20,534**								**50,585**
CVWD	03/04	671		832		1,027								2,530
	04/05	676		839		1,036								2,551
	05/06	649		806		994								2,449
Items shown in	06/07	616		765		944								2,325
"RP-1/RP-4" column are	07/08	609		755		933								2,297
currently in RP-1, but may in	08/09	565		702		865								2,132
future bypass to RP-4 as RP-4.	09/10	516		640		789								1,945
Trunk Sewer is constructed.	10/11	496		615		759								1,870
	11/12	437		542		669								1,648
	12/13	373		463		572								1,408
	13/14	342		425		525								1,292
TEN-YR TOTALS		***5,279***		***6,552***		***8,086***								***19,917***
	6/30/02 Baseline	**9,768**		**8,918**		***23,783***								**42,469**
	6/30/03 Baseline	**10,535**		**10,082**		***23,863***								**44,480**
FONTANA	03/04	193		1,925		96								2,214
	04/05	193		1,925		96								2,214
	05/06	174		1,744		87								2,005
Flow from the "RP-1/RP-4"	06/07	128		1,283		64								1,475
service area currently goes to	07/08	115		1,150		58								1,323
RP-1, but may in future go to	08/09	101		1,011		51								1,163
RP-4 when San Bernardino Ave.	09/10	98		983		49								1,130
Interceptor and Pump Station is	10/11	109		1,094		55								1,258
constructed.	11/12	96		956		48								1,100
	12/13	93		928		46								1,067
	13/14	95		950		48								1,093
TEN-YR TOTALS		***1,202***		***12,024***		***602***								***13,828***
	6/30/02 Baseline	**732**						**10,703**						**11,435**
	6/30/03 Baseline	**728**						**10,649**						**11,378**
MONTCLAIR	03/04	75						75						150
	04/05	75						75						150
	05/06	75						75						150
Items shown in "RP-1" column	06/07	50						100						150
go directly to RP-1. Items	07/08	50						75						125
shown in "CCWRF" column	08/09	50						75						125
flow directly to CCWRF unless	09/10	50						75						125
diverted to RP-1. This	10/11	50						75						125
breakdown assumes no	11/12	50						75						125
diversions.	12/13	50						75						125
	13/14	50						75						125
TEN-YR TOTAL		***550***						***775***						***1,325***
	6/30/02 Baseline	**57,660**										**0**		**57,660**
	6/30/03 Baseline	**58,415**										**0**		**58,415**
ONTARIO	03/04	800										0		800
	04/05	735										0		735
The flow going to RP-5	05/06	700										0		700
increases as the New	06/07	700										1,000		1,700
Kimball Interceptor/Eastern	07/08	700										1,050		1,750
Model Colony comes on-line and	08/09	700										1,050		1,750
portions of Ag Preserve become	09/10	700										1,050		1,750
sewered.	10/11	700										1,050		1,750
	11/12	600										1,100		1,700
	12/13	500										1,100		1,600
	13/14	500										1,100		1,600
TEN-YR TOTAL		***6,535***										***8,500***		***15,035***

APPENDIX A
2003/04 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-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
UPLAND	03/04	636						124					760
	04/05	681						123					804
Items shown in the CCWRF	05/06	286						155					441
column could be diverted to	06/07	293						155					448
RP-1. This breakdown assumes	07/08	267						108					375
no diversions.	08/09	135						106					241
	09/10	74						156					230
	10/11	82						118					200
	11/12	82						118					200
	12/13	82						118					200
	13/14	80						100					180
TEN-YR TOTAL		*2,062*						*1,257*					*3,319*
	6/30/02 Baseline	622						14,096		2,304			17,022
	6/30/03 Baseline	622						11,415		2,167			14,204
CHINO	03/04	0						75		40			140
	04/05	0						75		60			443
Flow from "RP-2" service area	05/06	0						50		150			1,177
will in future be lifted to RP-5 by	06/07	0						50		250			1,548
a new pump station located	07/08	2						50		250			1,749
at RP-2. Flow from	08/09	0						50		250			1,460
"RP-2/RP-5" service area	09/10	3						50		250			1,068
will in future flow directly to	10/11	0						50		250			1,044
RP-5. All flow is currently to	11/12	0						50		250			600
RP-2, CCWRF and RP-1.	12/13	5						50		250			605
	13/14	0						50		250			600
TEN-YR TOTAL		*10*						*525*		*2,210*			*10,294*
	6/30/02 Baseline							10,942		10,408			22,972
	6/30/03 Baseline							11,024		10,867			23,513
CHINO HILLS	03/04							360		812			1,172
	04/05							198		620			818
Flow from "RP-2" service area	05/06							45		230			280
will in future be lifted to RP-5 by	06/07							30		152			192
a new pump station located	07/08							10		55			65
at RP-2. Flow from	08/09							0		41			41
"RP-2/RP-5" service area	09/10							0		27			27
will in future flow directly to	10/11							0		12			12
RP-5.	11/12							0		0			0
	12/13							0		0			0
	13/14							0		0			0
TEN-YR TOTAL								*283*		*1,137*			*1,435*
	YEAR	RP-1		RP-4		RP-1/RP-4		CCWRF		RP-2/RP-5		RP-5	SUM
	6/30/02 Baseline	100,952		24,663		43,045		41,759		12,712		0	224,753
	6/30/03 Baseline	103,394		26,722		44,397		39,118		13,034		0	226,288
	03/04	2,375		2,757		1,123		634		852		0	7,766
GRAND TOTALS	04/05	2,360		2,764		1,132		471		680		0	7,715
	05/06	1,884		2,550		1,081		325		380		0	7,202
	06/07	1,787		2,048		1,008		335		402		1,000	7,838
	07/08	1,743		1,905		991		243		305		1,050	7,684
	08/09	1,551		1,713		916		231		291		1,050	6,912
	09/10	1,441		1,623		838		281		277		1,050	6,275
	10/11	1,437		1,709		814		243		262		1,050	6,259
	11/12	1,265		1,498		717		243		250		1,100	5,373
	12/13	1,103		1,391		618		243		250		1,100	5,005
	13/14	1,067		1,375		573		225		250		1,100	4,890
Incremental Growth 10-yr avg (04/05-13/14)		**1,564**		**1,858**		**869**		**284**		**335**		**850**	6,515
Incremental Growth 11-yr avg (03/04-13/14)		**1,638**		**1,939**		**892**		**316**		**382**		**773**	6,629

APPENDIX B

PROPOSED CAPITAL PROJECTS SUMMARY

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

Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: CC_Co-Composting Capital														
Location:	**510...572 - Compost**													
OR04001	Co-Composting Dust Control Sys	50,000												50,000
PL02041	Inland Emp Reg Composting	3,500,000	9,000,000	13,774,800	5,000,000								27,774,800	31,274,800
PL03001	Co-Compostg PhaseOut/PilotProj		554,000	48,000	48,000								650,000	650,000
PL04041	IEUA-RCA ADMIN COSTS	250,000	83,333										83,333	333,333
PL02001	Dairy Sewering Study	6,000		20,000	20,000	14,000							54,000	60,000
	Total Location: 520	**3,806,000**	**9,637,333**	**11,603,500**	**5,068,000**	**14,000**							**28,562,133**	**32,368,133**
	Total Fund:CC	**4,418,000**	**8,666,833**	**11,603,500**	**2,116,000**	**14,000**							**28,562,133**	**32,368,133**

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Fund: NC_NRW Capital Improvement Fund														
Location:	410...440 - NRW													
EB05007	NRW, Site Recorders		17,263										17,263	17,263
EB05008	NRW, Site Recorders			17,263									17,263	17,263
AA00215	NRW, Site Recorders				17,263								17,263	17,263
AA00216	NRW, Site Recorders		6,785										6,785	6,785
EC05009	CSDLAC Capital Replacement 4Rs		757,680										757,680	984,000
AA00333	NRWS (CSI) Line Cleaning													
EC04009	CSDLAC Capital Replcmt Cst 4Rs	1,645,000												1,645,000
EC06009	CSDLAC Capital Replacement Cos			1,248,698									1,248,698	1,618,500
EC07009	CSDLAC Capital Replacement Cos				1,807,275								1,807,275	2,342,500
EC08009	CSDLAC Capital Replacement Cos					2,121,282							2,121,282	2,749,000
EC09009	CSDLAC Capital Replacement Cos						2,870,424						2,870,424	3,720,500
EC10009	CSDLAC Capital Replacement Cos							2,571,847					2,571,847	3,333,500
EC11009	CSDLAC Capital Replacement Cos								2,459,206				2,459,206	3,187,500
EC12009	CSDLAC Capital Replacement Cos									2,152,914			2,152,914	2,790,500
EC13009	CSDLAC Capital Replacement Cos										1,433,862		1,433,862	1,858,500
EC14009	CSDLAC Capital Replacement 4Rs											1,433,862	1,433,862	1,858,500

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Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: NC_NRW Capital Improvement Fund														
Location:	410...440 - NRW													
EN03750	NRWS Emergency Pipeline Repair	20,000	20,000	20,000	20,000								60,000	100,000
EN04037	Emergency NRW Manhole Adjust	7,500												7,500
GM04003	CEO/GM NRWS Cap Replcment Cont	12,500												12,500
GM05003	CEO/GM NRWS Cap Replacment C		20,000										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
EC05002	Portable Gas Monitor		5,200										5,200	5,200
EN05023	MWD Ion Exchange Connections		2,133,195	4,681,682	54,693								6,869,570	6,869,570
EN05024	Sturvite Mitigation Program		924,700	884,000	872,535	20,792							2,702,027	2,702,027
EN92007	Grove Ave NRW Relocation	416,000	8,573										8,573	491,400
CW04700	NRW Connection & Remit Constr	6,000												6,000
CW05700	NRW System Connections & Reimb		6,000										6,000	6,000
CW06700	NRW System Connections & Reimb			6,000									6,000	6,000
CW07700	NRW System Connections & Reimb				6,000								6,000	6,000
CW08700	NRW System Connections & Reimb					6,000							6,000	6,000
EN03700	NRW Special Projects	25,000	25,000	25,000	25,000								75,000	125,000
	Total Location: 430	**2,132,000**	**3,924,396**	**6,902,643**	**2,822,766**	**2,168,074**	**2,890,424**	**2,591,847**	**2,479,206**	**2,172,914**	**1,453,862**	**1,433,862**	**28,839,994**	**36,669,771**
	Total Fund: NC	**2,132,000**	**3,924,396**	**6,902,643**	**2,822,766**	**2,168,074**	**2,890,424**	**2,591,847**	**2,479,206**	**2,172,914**	**1,453,862**	**1,433,862**	**28,839,994**	**36,669,771**

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

Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: OC_Organics Mgmt Cap.Imprv. Fund														
Location:	810 - Organics Management Admin.													
PL03005	Complete Mix Digestion Technol		1,500,000	1,500,000									3,000,000	8,000,000
PL02022	Organics Mgmt Prog Svc's	140,000												350,000
	Total Location: 810	140,000												**8,921,000**
Location:	820 - RP5 Manure Digester													
EN04038	RP5 Digester Expan/Modificatn	15,000	2,054,350										2,054,350	2,069,350
PL02013	RP5 Renewable Energy Project	49,000												8,096,471
	Total Location: 820	**64,000**	**2,054,350**										**5,054,350**	**10,165,821**
	Total Fund: OC	**204,000**	**2,054,350**										**5,054,350**	**19,086,821**

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

Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	111 - Main Office Administration													
EN05068	Electronic O&M Manuals		200,000	75,000									275,000	275,000
	Total Location: 111		**200,000**	**75,000**									**275,000**	**275,000**
Location:	114 - Warehouse													
EN03015	RP1-Warehouse seismic retrofit	12,600	120,900	103,500									224,400	237,000
	Total Location: 114	**12,600**	**120,900**	**103,500**									**224,400**	**237,000**
Location:	115 - Maintenance Administration													
EM05004	LEL Meters for Water Col. Crew		10,775										10,775	10,775
EM05005	Explosion proof Camera & Tract		53,876										53,876	53,876
	Total Location: 115		**64,651**										**64,651**	**64,651**
Location:	116 - RP-1 Operations Center													
OA05005	RP1 Admin Bldg Enhancement		9,700										9,700	9,700
	Total Location: 116		**9,700**										**9,700**	**9,700**
Location:	117 - Maintenance Facility - North													
PA05001	Replace Maint Band Saw		7,500										7,500	7,500
PA05003	Equipment Storage Area		40,000										40,000	40,000
PA05004	10 Foot Fence at Containers		7,000										7,000	7,000
PA05012	Extend Fire Sprinklers Maint.		8,000										8,000	8,000
PA05002	Purchase Pneumatic Line Plugs		4,000										4,000	4,000
PB05002	Purchase 5" Core Drill		8,081										8,081	8,081
EN04004	RP1 Maint/Whse Seismic Retroft	10,486	82,214	69,400									151,614	162,100
	Total Location: 117	**10,486**	**156,795**	**69,400**									**226,195**	**236,681**

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List by Fund and Location

Project #	Description	Projected Actual 03/04	Ten-Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	210 - Regional Administration													
EC05003	EC ISCO Composite Samplers		5,200										5,200	5,200
OA05002	Life Rings and Cabinets		20,365										20,365	20,365
EN05049	Agency Operational Parameters		159,500										159,500	159,500
AA00342	Misc RC Construction Projects		207,780	207,780	207,780	207,780	207,780	207,780	207,780	207,780	207,780	198,240	2,068,260	2,068,260
EN04013	Manhole Sealing Proj Phase II	300	38,200										38,200	38,500
GM04001	CEO/GM Regional Cap. Replcmnt	24,200												40,000
AA00303	Two 1 MGD Satellite Plants											1,258,000	1,258,000	25,561,555
EN02016	Manhole Sealing	10,700	7,000										7,000	37,450
EN04018	Engineering-As-Builting	6,900	147,000	106,500									253,500	260,400
PL01001	Northern Svc Area-Master Plan	126,000												1,495,500
PL05002	Phase 2-Surface Wetlands & Hab		342,325	1,924,348	1,874,602	33,425							4,174,700	4,174,700
PL05003	Riparian Habitat Enhancement F		130,700										130,700	130,700
PL05004	Survey of Salinity Ctrl Method		69,600										69,600	69,600
PL05005	Pathogen Source Evaluation		117,500										117,500	117,500
PL05006	Chino Creek Master Plan		230,250	230,250									460,500	460,500
PL05007	FY2004/05 Facilities Master Pl		528,000	462,000									990,000	990,000
EN05003	Facilities Performance Analysi		312,752										312,752	312,752
EN02001	Right of Way Document Organize	10,500	49,500										49,500	60,000
EN03014	Engineering-Grants Admin Costs	20,000	25,000	25,000	26,000								76,000	100,000
EN03300	Regional System Special Proj's	70,000	70,000	70,000	70,000								210,000	350,000
PL02004	BAR Access Program	7,050	8,050										8,050	8,050
	Total Location: 210	**275,650**	**2,468,722**	**3,025,878**	**2,178,382**	**241,205**	**207,780**	**207,780**	**207,780**	**207,780**	**207,780**	**1,456,240**	**10,409,327**	**36,460,532**

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

Project #	Description	Projected Actual 03/04	Ten-Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	220 - Regional Interceptors													
EN05002	Manhole Sealing Project		166,243										166,243	166,243
EN03009	Etiwanda Interceptor Manholes			73,700	300,000								373,700	373,700
EN05015	Easement for Archibald Sewers		32,346	15,845									48,191	48,191
AA00281	RP4 Trunk Sewer										1,161,000	8,575,000	9,736,000	12,712,325
EN05035	Upland Int Relief Sewer Ph II		591,707	6,875,000	6,175,000	868,375	119,463						14,629,545	14,629,545
PL02012	RP1 to RP5 By-Pass	743,500	13,104,100	1,992,300	5,100								15,101,500	15,900,000
PL04001	San Bernardino Pump Stn Land	10,000	490,000										490,000	500,000
CW04300	Regional Conn/Reimb Construct	20,000												20,000
EN03023	San Bernardino Ave Pump Stn	12,787	30,000	250,000	2,611,143	1,357,187							4,248,330	4,276,000
EN02004	Regional Intrcptr Cap Monitor	10,000												30,600
	Total Location: 220	**796,287**	**14,414,396**	**9,206,845**	**9,091,243**								**44,793,509**	**48,656,604**
Location:	221 - Montclair Lift Station													
EN02022	Montclair L/S Pavement Mtn	3,500												3,500
EN03007	Montclair Int TV Inspection	12,800												12,800
	Total Location: 221	**16,300**												**16,300**
Location:	222 - Prado Lift Station													
EB05006	CIW Pump Controller		9,841										9,841	9,841
EN03002	Prado Dechlor Stn Pavement Mnt	12,600												12,600
	Total Location: 222	12,600	9,841										**9,841**	**22,441**
Location:	225 - Upland Hills WRP													
OA04002	Upland Hills Plant Modificatio	38,500	280,000	638,075	62,215								980,290	1,018,790
	Total Location: 225	**38,500**	**280,000**	**638,075**	**62,215**								**980,290**	**1,018,790**
Location:	230...238 - RP1													
AA00077	Agency-wide Landscape Mods										41,888	338,331	380,219	383,441
AA00095	Agency-wide Asphalt Maintenanc								1,585,022	13,180			1,598,202	1,598,202

APPENDIX B
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Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	230...238 - RP1													
AA00125	Agency-wide Coating Maintenanc								559,652	4,743			564,395	564,395
EM05007	PC Workstation Replacements		15,332										15,332	15,332
EM05008	Purchase 5 laptop computer		38,449										38,449	38,449
EM05009	RP-1 CEM DAHS		47,029										47,029	47,029
EM05010	DCS Vers.7 Hardware Upgrade		160,485										160,485	160,485
EB05005	RP2 Digester Level Transmitter		5,887										5,887	5,887
EM05016	Replace UPS at RP1 MCB		25,434										25,434	25,434
EM05017	RP1 Gas System Automation		55,366										55,366	55,366
PA05005	Replace Roof on ERB		17,000										17,000	17,000
PA05006	Replace Roof on the SMB		16,000										16,000	16,000
PA05007	Rebuild Kits for PD Pumps		28,000										28,000	28,000
PA05008	Rebuild Gas Compressors at ERB		28,000										28,000	28,000
PB05001	RP1-Replace Sampler Heads		8,081										8,081	8,081
EN05007	RP1 Aeration Basin Mods		886,200	884,000	872,536	20,791							2,663,527	2,663,527
PA05009	RP1 12kV Meters Testing		15,000										15,000	15,000
PB05003	RP1 IPS Pumps-install 3 VFD		22,628										22,628	22,628
EM05018	TP1-Rebuild/Refurbish I/O Hubs		60,786										60,786	60,786
PA05011	RP1 Replace Grit Classifier		24,783										24,783	24,783
PB05004	TP1-Automate CL2 controls		8,081										8,081	8,081
PB05005	TP1-VFD for Intake Pump		26,938										26,938	26,938
EN05050	RP1 & RP2 Digester Gas Sys Mod		951,000	2,342,511									3,293,511	3,293,511
PA05013	RP1 Replace Chains and Rails		39,472										39,472	39,472

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Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	230...238 - RP1													
EA04003	RP1 Dissolved Oxygen Probes	20,555												20,555
EA04004	Upgrade 2 Wrkstns UltraSparc 6	47,383												47,383
EA04005	RP1/2/4/CCW DCS Alarm Upgrade	33,661												33,661
EA04008	RP1 Public Address System	19,000												19,000
EB04004	RP1/TP1/Desalter 4 NT Wrkstns	15,216												15,216
EN02003	RP1 Auto Panel Flexing System	3,034												376,950
EN03006	RP1 DAFT 1,2&3 Hppr Sldg Drn P	19,588												42,680
EN03008	Archibald Tr TV Inspection	10,600												10,600
EN03011	RP1 Replace Aerated Grit Chmb	118,019												131,400
EN03350	Regional Sys Emergency Pipelin	20,000	30,000	20,000									50,000	90,000
EN04009	RP1 Aerated Grit Chamber Efflt	31,400	100,000										100,000	131,400
EN04012	RP1 Aeration Basins Gate Replc													307,650
IS03011	RP1 Repl 10&15 S Cntrl Processr	4,348												50,357
PA03011	RP1 Rebuild IPS Pumps 1,2 & 3	46,849												46,849
PA03014	RP1 Rebld/Replc Dewtr Hopper	56,100												56,100

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Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	230...238 - RP1													
PA03015	RP1 Closed Loop-Gas Compressor	30,683												30,683
PA03020	Upgrade 2 Appl WkStn-UltraSpar	45,233												45,233
PA03021	Upgrade 4 Foxboro AW Station	68,693												68,693
PA03022	Upgrade Foxboro Sftwr Ver 7.x	48,920												48,920
PA03025	RP1 Crane Replacement	10,000												50,000
PA04005	RP1/4 Primary Clarifiers Overh	36,633												36,633
PA04006	Rp1 Rebuild IPS Pumps 9 & 10	36,730												36,730
PA04011	RP1 Hot Water Isolation Valves	21,695												21,695
EA03006	Prado Dechl-Repl/Relocate Anal	4,773												41,000
EA04002	TP1 MCC UTILITY WATER PUM	81,738												81,738
PA04010	TP1 Flocculators Replacement	14,044												14,044
PA04012	TP1 2 10kva Unintrrpt Pwr Sply	25,890												25,890
EM05013	Install Wireless Workstations		117,155										117,155	117,155
EM05015	PAC Network Analyzer		34,698										34,698	34,698
OA05004	RP1 Multi - Gas monitor		6,076										6,076	6,076
CP04008	RP1 Auto Irrigation System	2,334												2,334
EA03007	Digester Electrical Compliance	123,270												350,000
EA04006	RP1/TP1 4 Laptop Computers	28,847												28,847
PA04013	RP1/2 Portable Gas Monitor	2,455												2,455
PA04014	RP1/2 Borescope	22,321												22,321

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Fund: RC_Regional Capital Improvements														
Location:	230...238 - RP1													
PL03004	Agency wide Odor Monitor/Mgmt	115,000	285,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000			635,000	750,000
OA05007	TP1 Flow Meter	21,300												21,300
OA05008	Liquid Containment, Bleach	26,938												26,938
OA05006	Ely Basin Sampling		5,388										5,388	5,388
CP04009	TP1 Automated Irrigation Syste	14,334												14,334
EA04001	TP1 ABS Pump Station Power Fee	16,075												16,075
PA03024	TP1 Chemical Mixer	18,885												55,200
AA00141	RP1 Sec Treatment System Mods				1,060,123	15,400,000	10,599,642	226,664					27,286,429	27,286,429
EN05008	RP1 Sludge Screening Facility		240,455	450,787	5,400								696,642	696,642
EN05071	TP1 Outfall Flowmeter		70,896	230,149	2,357								303,402	303,402
EN05010	TP1 Mixers at OES, NES & CCT		62,843	388,384	3,693								454,920	454,920
EN05011	TP1 Sodium Hypochlorite Exp		113,778	211,656									325,434	325,434
AA00261	RP1 Gravity Thickener No. 2				131,000	1,504,502	450,685	16,735					2,102,922	2,102,922
PA05010	TP1 Build Shops at CL2 Bldg.		11,832										11,832	11,832
EN05028	TP1 Flash Mixer Access		64,027	243,935	2,410								310,372	310,372
EN05030	RP1 Food Waste Storage & PS		284,767	608,894	6,084								899,745	899,745
AA00301	RP1 Odor Control Primary Clf Phase II								623,670	975,042	12,804		1,611,516	1,611,516
AA00304	RP1 Odor Control-Equalization										592,892	12,818,383	13,411,275	17,535,195

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Fund: RC_Regional Capital Improvements														
Location:	230...238 - RP1													
EN05059	TP1 Chlorination Separation		102,979	344,557	3,926								451,462	451,462
EN01010	RP1 Chlorine Contact Tank Exp	3,000,000	883,300										883,300	4,817,200
EN01015	RP1 Entry Road Imprv/Landscapg	163,600	341,000										341,000	592,000
EN01035	RP1 Disinfection Sys Upgrade	1												506,297
EN02013	RP1 Wste Washwtr Pmp Well Acce	109,280												189,500
EN02014	Prado Dechlor Seismic Retrofit	6,286	46,814	39,500									86,314	92,600
EN02036	RP1 Aeration Basin Drain Pmps	1,000	297,900										297,900	298,900
EN03020	Visitor Cntr Ont Soccer Complx	100	100	100	92,200	32,500							124,900	125,000
EN03021	RP1 Ramp Repair Dewatrng Bldg	6,800												79,800
EN03022	RP1 Gas Storage Tanks,PhaseII	120,522												300,550
EN04010	RP1 Maintenance Access Road	75,000	104,000										104,000	179,000
EN04019	RP1 Digester Gas Storage, III	127,000	195,300										195,300	322,300
EN04020	RP1 Belt Press Filtrate Treat	10,000								339,000	3,426,800		3,765,800	3,775,800
EN04022	RP1 Sludge Hopper Ports	254,100												254,100
EN04023	RP1 Solids Control Bldg Equip	10,000				790,000	3,684,290	2,100					4,476,390	4,486,390
EN04024	RP1 Access Bridge	1,000			272,000	625,540							897,540	898,540
EN04025	RP1 Blower Upgrade	1,100							25,800	596,550	527,650		1,150,000	1,151,100

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Fund: RC_Regional Capital Improvements														
Location:	**230...238 - RP1**													
EN04026	RP1 Coating Maintenance, Phl	3,250	144,800	1,000									145,800	149,050
EN04035	RP1 Gravity Thickner Pip Mods	1,000	239,000	259,800									498,800	499,800
EN04036	RP1 3-Phase Digestion Imprvmnt	407,000	2,132,000	158,217									2,290,217	2,697,217
EN05009	RP1 Dig 5,6 & 7 Seismic Retrft	1,000	167,000	212,000	41,000								420,000	421,000
EN20033	Upland Interceptr Relief Phs I	469,000	1,030,000	4,000									1,034,000	1,561,000
EN20049	Cucamonga Interceptor Modifica	77,000												77,000
EN99003	RP1 Phil Entry Widening	10,000	40,000	4,000									44,000	54,000
PL01008	RP1 Dairy Manure Digest.Pilot	13,276												1,002,152
PL03006	RP1 Odor Control - Phase I	110,000	4,847,900	847,000									5,694,900	5,804,900
PL05001	RP1 Modernization	20,000	1,165,000				200,000	2,157,000	753,000				4,275,000	4,300,000
EN02011	TP1 Filter Influent Gallery	100,000												207,700
EN04034	TP1 Chlorination Line Replcmnt	295,050	69,300										69,300	364,350
EN20046	TP1 Outfall Energy Recovery	1,000	1,000	62,000									63,000	64,000
EN01019	TP1 Outfall Ext Valve Repl	16,854												116,500
	Total Location: RP1	**6,672,762**	**15,714,259**	**7,362,490**	**2,542,729**	**18,423,333**	**14,984,617**	**2,452,499**	**3,597,144**	**1,978,515**	**4,602,034**	**13,156,714**	**84,814,334**	**116,192,620**

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Fund: RC_Regional Capital Improvements														
Location:	240...244 - RP2													
EA05002	Replace DAFT Pressure Pumps		11,974										11,974	11,974
EB05001	RP2 Contrl Bldg HVAC Units		19,860										19,860	19,860
EB05002	RP2 VFDs Replacement		29,317										29,317	29,317
EB03001	REPLACE 4 NT WORKSTATIONS	13,130												13,692
EB04006	RP2 Flow Meter Replacements	16,461												16,461
EN02024	RP2 Digester Cover Coating	80,000												88,900
PB04004	RP2 3 TAS Pump Replacement	86,878												86,878
PB04005	RP2 DAFT Pressure Pump Replace	10,894												10,894
PB04006	RP2 BELT PRESS FEED PUMP	15,711												15,711
EB04003	RP2 PLC Network to DCS	50,143												50,143
EB04007	RP2 Digester Bldg Leak Detect	15,068												15,068
PB04007	RP2/CCW Tig Welding Machines	6,983												6,983
EN05018	Relocate centrifuge to RP-2		241,717	1,886									243,603	243,603
EN05019	RP2 Dewater Bldg Skylight		25,370	200									25,570	25,570
EN05020	RP2 Food Waste Storage & PS		189,228	331,255	3,573								524,056	524,056
EN05027	RP2 DAFT System Modifications		159,770	47,575	1,693								209,038	209,038
EN05058	RP2 Solids Handling Automation		156,733	1,216									157,949	157,949
EN05067	RP-2 Decommissioning		633,300	1,184,487	13,771								1,831,558	1,831,558
EN01029	RP2 Solid Handling Improvement	797,864	2,076,465	12,000									2,088,465	3,008,408
EN02032	RP2 Landscaping	4,190	22,810										22,810	27,000
EN03013	RP2 Solids Loadng Conveyr Relo	181,000	2,000										2,000	183,000
EN03025	RP2 Engine Rm Ventilatn Sys	60,000												72,000
EN03027	RP2 Digester Wall Reinfmnt&Cvr	1												
EN04002	RP2 Landscaping & Paving	7,000	65,600										65,600	72,600
EN04003	RP2 CityofChino Potable Water	2,200	287,559	2,319									289,878	292,078

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Fund: RC_Regional Capital Improvements														
Location:	**240...244 - RP2**													
EN04016	RP2 Sludge Hopper Modification	1,450	150,350	2,050									152,400	153,850
EN04017	RP2 Landscape Mod & Irrigation	13,925	123,375										123,375	137,300
EN04027	RP2 Coating Maintenance, Ph I	1,150	79,650										79,650	80,800
PB04008	RP2 Centrifuge Catwalk Constru	10,640												10,640
PL04002	RP2/5 Chino Creek Othr Use Std	25,000	225,000										225,000	250,000
	Total Location: RP2	**1,399,688**	**4,500,078**	**1,582,988**	**19,037**								**6,102,103**	**7,645,331**

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Fund: RC_Regional Capital Improvements														
Location:	250...254 - CCWRP													
EA05001	Replace Grit Augers and Trough		14,788										14,788	14,788
EA05003	CCWRP-Mixers/Lifting Devices		33,925										33,925	33,925
EB05009	CCWRP Dissolved Oxygen Probes		19,568										19,568	19,568
OB05001	CCWRP Taylor-Dunn Carts		10,850										10,850	10,850
EN05029	CCWRF Pri Clar Equip Coatings		90,608	246,505	2,649								339,762	339,762
CP04007	CCWRF Controllers w/Pedals	12,834												12,834
EB04001	PC 4 Workstation Replacements	15,216												15,216
EN03001	CCWRP Replc-Aeration Drain Vlv	4,000	24,350	138,915	61,635								224,900	228,900
OB01001	CCWRF Repl BarScreen Enclosure	30,000												95,410
OB04002	CCWRF Sec. Clarifier Weir Was	65,200												65,200
PB04002	CCWRF Mixers/Lifting Hoist Rep	81,713												81,713
PB04003	CCWRF Blower Bldg Roof Replace	24,400												18,600
EM05011	DCS Network Security Enhance		69,214										69,214	69,214
OB05002	CCWRP - Water-Champ Purchase		110,850										110,850	110,850
OB05003	CCWRP- Scrubber H2S Monitoring		29,850										29,850	29,850
AA00265	CCWRF Ferric Chloride Sys Mods									77,770	40,330		118,100	111,100
EN05017	CCWRF Odor Control Upgrades		249,770	58,130	2,392								310,292	310,292
EN05061	CCWRF Filter & Contact Tank Ex		699,533	2,651,417	5,350,409	68,509							8,769,868	8,769,868
AA00351	CCWRF Rec Water Reservoir Exp											167,195	167,195	4,327,241
EN01040	CCWRF Generator													1,423,644
EN02015	CCWRF Influent Structur Repair	10,750	3,000	73,500	33,600								110,100	122,850
EN02037	CCWRF Chlorination Facility	208,000	1,296,700	12,000									1,308,700	1,526,700
EN04014	CCWF Soda Ash Structure Remval	630	3,570	46,620	20,580								70,770	71,400
EN04015	CCW Secondary Clarifier Equip	540	337,560	131,100									468,660	469,200

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Fund: RC_Regional Capital Improvements														
Location:	250...254 - CCWRP													
EN04028	CCW Coating Maintenance, Ph I	3,600	46,750										46,750	50,350
EN04030	CCWRP Aeration System Mod.	39,060	436,340				2,103,925	993,825	15,750				3,549,840	3,588,900
OB04003	CCWRF Opert Bldg Landscaping	10,100												10,100
AA00338	Ferric Chloride Usage at CCWRF					254,595							254,595	254,595
	Total Loc: CCWRPat	**506,043**	**3,477,226**	**3,358,187**	**5,471,265**	**323,104**	**2,103,925**	**993,825**	**15,750**	**77,770**	**40,330**	**167,195**	**16,028,577**	**22,182,920**

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Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	270...274 - RP4													
OD05001	Compliance Sampler Replacement		14,148										14,148	14,148
PA03003	RP4 Updt Hdwrks Lcl Cntrl Sys	8,025												38,500
PA04008	RP4 IPS Pump Overhaul	27,009												27,009
PA04016	RP4 Tertiary Filter Repairs	35,000												
EA04009	TP4 Filter Valves Replacement	37,000												37,000
AA00182	RP4 Maintenance Bldg.-HVAC		8,620										8,620	8,620
EM05012	Wireless LAN Bridge		274,396										274,396	274,396
OD05002	RP4 1/2 ton Pickup Truck		17,025										17,025	17,025
EN05025	RP4 Filter Chemical Feed Mods		51,901	419									52,320	52,320
AA00302	RP4 Solids Expansion & Co-Gen									1,594,760	9,045,984	16,407,386	27,048,130	30,672,070
PL05001	RP4 Land Acquisition		200,000	1,751,000	1,500,000								3,451,000	3,451,000
EN01003	RPR4 Energy Load Reductn Fac	6,005,000	8,500,000										8,500,000	10,073,710
EN01033	RP4 Generation Station													1,117,231
EN04011	RP4 Liquid Expansion to 14 mgd	525,000	3,100,000	20,500,000	10,575,000								34,175,000	34,700,000
EN04029	RP4 Coating Maintenance, Ph I	3,600	46,750										46,750	50,350
EN03030	RP4 Outfall Valve RestrainGros	5,700												5,700
	Total Location: RP4	**6,646,334**	**12,212,840**	**22,251,419**	**12,075,000**	**0**				**1,594,760**	**9,045,984**	**16,407,386**	**73,587,389**	**80,539,079**

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Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: RC_Regional Capital Improvements														
Location:	280...284 - RP5													
EM05001	Asset Management System		439,379	10,000									449,379	449,379
EN05066	RP-5 Wall, WH Access & St Impr		305,000	977,020	8,788								1,290,808	1,290,808
EM05014	Time Synchronization Software		29,526										29,526	29,526
EN02008	RP5 Maint/Op Bldg Furn/Equip													729,250
OE04002	RP-5 Forklift	18,808												
OE05001	RP5 Chemical Mixing		111,689										111,689	111,689
EN05021	RP5/CCWRP Chl Covers		356,750	967,365	10,656								1,334,771	1,334,771
EN05048	RP5 Restroom Facilities		85,155	667									85,822	85,822
EN05052	RP5 Warehouse\Maint Facility		1,110,700	4,500,774	336,257	50,060							5,997,791	5,997,791
AA00344	RP-5 Expansion to 27 mgd						2,055,000	25,084,000	30,100,000	5,606,551			62,845,551	62,845,551
EN05060	RP5 Hot Water Loop Feasibilit		115,500										115,500	115,500
EN05065	RP-5 Land Restor & Property De		539,000	1,425,699	240,966	17,281							2,222,946	2,222,946
EN02010	RP5 Oper & Maint Building													731,120
EN02038	Chino Creek Park	220,835	2,804,373	1,271,692									4,076,065	4,296,900
EN03029	RP5 Renewable Energy Efficincy	1,212,000	8,851,596	1,832,404	50,000								10,734,000	11,946,000
EN03032	RP5 Campus Appurtenances	4,335	10,000										10,000	14,335
EN04033	RP5 Utility Water Pipeline	50,000	681,330										681,330	731,330
EN95028	RP-5:RP-2 Replacement	4,571,502												81,568,934
	Total Location: RP5	**6,077,480**	**15,439,998**	**10,985,621**	**646,667**	**67,341**	**2,055,000**	**25,084,000**	**30,100,000**	**5,606,551**			**89,985,178**	**174,501,652**
	Total Fund: RC	**22,464,730**	**69,069,406**	**58,659,403**	**32,086,538**	**19,054,983**	**19,351,322**	**28,738,104**	**33,920,674**	**9,465,376**	**13,896,128**	**31,187,535**	**327,510,494**	**488,059,301**

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Fund: RW_Recharge Water Fund														
Location:	380 - Recharge Water Prog. Admin.													
PL05008	Groundwater Monitoring Wells		2,406,500										2,406,500	2,406,500
PL05009	Title 22 Phase II Report		250,000										250,000	250,000
WR02016	CB Recharge Facility Improvmnt	20,250,000	16,005,267										16,005,267	38,705,267
WR02026	CB Rechg Fac Imp Administraton	118,901	20,000										20,000	138,901
	Total Location: 380	**20,368,901**	**18,681,767**										**18,681,767**	**41,500,668**
	Total Fund: RW	**20,368,901**	**18,681,767**										**18,681,767**	**41,500,668**
Fund: WC_Recycled Water Capital Fund														
Location:	210 - Regional Administration													
PL04003	High Resolutn Imagery Program	35,000												35,000
	Total Location: 210	**35,000**											**0**	**35,000**
Location:	240...244 - RP2													
EN01007	Rec Wtr Systm Hydrants/Meters	64,355	112,300										112,300	180,500
	Total Location: 242	**64,355**	**112,300**										**112,300**	**180,500**

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Fund: WC_Recycled Water Capital Fund														
Location:	**310...370 - Recycled Water**													
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	1,427,971	1,427,971
EN03550	Recyc Wtr Emerg Pipeln Repairs	15,000	15,000	15,000	15,000								45,000	75,000
GM04004	CEO/GM Recycled Cap Replcment	20,000												20,000
GM05004	CEO/GM Conting-Recyc Wtr Replc		20,000										20,000	20,000
GM06004	CEO/GM Conting-Recyc Wtr Repl			20,000									20,000	20,000
GM07004	CEO/GM Conting-Recyc Wtr Repl				20,000								20,000	20,000
GM08004	CEO/GM Conting-Recyc Wtr Repl					20,000							20,000	20,000
AA00137	RP1 Zone 2B Rec Water PS Exp						261,000	2,844,571	1,357,341	36,793			4,499,705	4,499,705
EN05012	Land for Phase II RW projects		607,706	552,706									1,160,412	1,160,412
AA00308	Jurupa RW Pipeline											420,000	420,000	3,655,678
AA00309	Fourth Street RW Res & PS					572,000	3,950,936	2,304,878	55,242				6,883,056	6,883,056
EN05038	Edison-Merrill RW Pipeline		239,000	2,141,433	3,501,114	3,271,422							9,152,969	9,152,969
AA00312	Benson Avenue RW Pipeline											882,378	882,378	5,000,000
AA00313	North Etiwanda RW Pump Station											560,919	560,919	6,257,583
AA00320	Brooks Basin RW Pipeline											264,000	264,000	12,156,122
AA00321	210 Freeway RW Pipeline											522,000	522,000	21,419,221
EN05057	RP5/RP2 Recycled Water Lines		491,343	2,738,694	550,000	30,508							3,810,545	3,810,545
AA00352	210 Freeway RW Res & PS											422,000	422,000	4,817,362
AA00353	Ramona Ave RW Res & PS											597,000	597,000	5,850,209
EN01020	4th St Recycled Water Pipelnes	4,090,000	5,705,000										5,705,000	9,850,000
EN01023	Wineville Ave Reg Pipeln Phsel	1,975,420												2,307,200
EN01024	RP1/RP4 Recyc Wtr Pmp Stn Ph I	4,325,511	2,144,509	127,003									2,271,512	7,748,000
EN01025	Pine Avenue Recycled Wtr Line	544,400												1,066,000
EN01027	Rec.WtrSystm Etiwanda Pwr Plnt	608,376												1,115,476
EN03028	Philadelphia St RecycWtr Pipln	1,513,000	1,000,000										1,000,000	3,591,400

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

Project #	Description	Projected Actual 03/04	Ten-Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: WC_Recycled Water Capital Fund														
Location:	310...370 - Recycled Water													
WR02002	RP4: Etiwanda Extention to 210	1,273,000	2,153,000										2,153,000	3,621,000
WR04016	Recycle Wtr Dist Sys - Ph II	500,000	4,175,444	15,575,000	6,876,261	973,295							27,600,000	28,100,000
WR99003	RP4 Outfall Groundwater Rechg	48,790												316,800
CW04500	Recycled Water Reimb Cost Cons	15,000												15,000
CW05500	Recyc Wtr Cost Reimb Constrn		15,000										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
EN01030	Water CEQA Consulting Services	50,000												396,600
EN03500	Recyc Wtr Special Projects	25,000	25,000	25,000	25,000								75,000	125,000
WR04007	SAWPA Project Participation	16,313												16,313
WR04012	FY0304 Reg. Recycled Wtr Mrktg	250,000												250,000
WR04013	FY0304 RW Prog-Mktg/Tech.Assis	250,000												250,000
WR05007	SAWPA Project Participation		41,500										41,500	41,500
WR05012	FY0405 Reg. Recycled Wtr Mrktg		125,000										125,000	125,000
WR05013	FY0405 RW Prog-Mktg/Tech.Assis		150,000										150,000	150,000
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

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

Project #	Description	Projected Actual 03/04	Ten -Year CIP 04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	10 Year Budget FY 04/05-13/14	Total Project Budget
Fund: WC_Recycled Water Capital Fund														
Location:	**310...370 - Recycled Water**													
WR09013	RW Program-Marketg/Tech Assist						150,000						150,000	150,000
	Total Location: 310	**15,519,810**	**17,099,798**	**21,663,632**	**11,456,971**	**5,294,521**	**4,639,232**	**5,286,745**	**1,549,879**	**174,089**	**137,296**	**3,805,604**	**71,107,767**	**146,609,922**
	Total Fund: WC	**15,619,165**	**17,212,098**	**21,663,632**	**11,456,971**	**5,294,521**	**4,639,232**	**5,286,745**	**1,549,879**	**174,089**	**137,296**	**3,805,604**	**71,220,067**	**146,825,422**

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 acre-feet 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 acre-feet per year.
- 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 acre-feet 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 acre-feet of new local supplies, 100,000 acre-feet of new storage, 33,000 acre-feet of new dry year yield.
- Provides reliable "drought-proof" water supplies to meet future growth without any significant increase in water and sewer 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 acre-feet per year which is pumped to meet municipal, industrial and agricultural needs.
- About 5,000,000 acre-feet of unused storage capacity remains in the groundwater basin.

Inland Empire Utilities Agency (IEUA)

- IEUA provides wholesale water and sewer 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 acre-feet per year (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 acre-feet (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."