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TEN-YEAR CAPITAL IMPROVEMENT PLAN

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Inland Empire Utilities Agency

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TEN-YEAR CAPITAL IMPROVEMENT PLAN

INTRODUCTION

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

This TYCIP 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 FY2008/09.

Besides keeping pace with forecasted capacity demands, this Ten-Year Plan continues with implementation of the long-term programs established in the Wastewater Facilities Master Plan and related planning documents described in Chapter 1. Significant changes from the FY2007/08 TYCIP are:

- Significantly reduced flow forecast due to slowdown in economic and housing growth;
- Deferral of $99 million of capital projects budgeted for the current and next two fiscal years;
- New Solar Power Project that will develop up to 5 megawatts of power, as part of an emphasis on energy sustainability and reducing emissions of greenhouse gases to prevent global warming;
- Focus shifted away from planning major new facilities to planning for repair, replacement or modification of aging facilities through the Agency's Asset Management Program; and
- Recycled Water 3-Year Business Plan developed to guide expansion of the recycled water system

and to bring the most cost-effective projects on line first; with a financing plan that eliminates the need for subsidies from the Regional Sewerage Program.

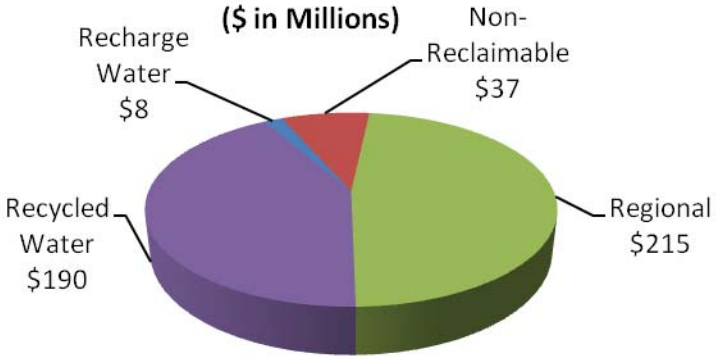
The Agency's budget and Ten-Year Capital Improvement Plan are divided into several different program areas:

- Regional Program (RC, RO, and OM Funds)
- Recycled Water Program (WC Fund)
- Recharge Water Program (RW Fund)
- Non-reclaimable Waste System Program (NC Fund)

REGIONAL PROGRAM

As shown in Figure ES-1, "Recommended Ten-Year Capital Project Expenditures," by far the largest capital improvement program area is the Regional Sewerage Program, representing almost 50% of the Agency's annual fiscal budget. The Regional Program funds the activities associated with construction and replacement of the Agency's wastewater, energy cogeneration, and biosolids handling facilities.

FIGURE ES-1
RECOMMENDED TEN-YEAR CAPITAL PROJECT EXPENDITURES
($ in Millions)



Wastewater Collection and Treatment

This year's Ten-Year Plan recommends $215 million in capital project expenditures for the Regional Wastewater Program for wastewater collection, treatment, and disposal projects. This budget includes construction of new facilities and also provides adequate resources for replacement of capital facilities under the Agency's Asset Management Program. Figure ES-2 examines how the recommended RC capital project costs are spread over the next ten fiscal years. The current fiscal year is also provided for reference.

Figure ES-2
Recommended Wastewater Collection, Treatment, and Disposal Program Capital Expenditures

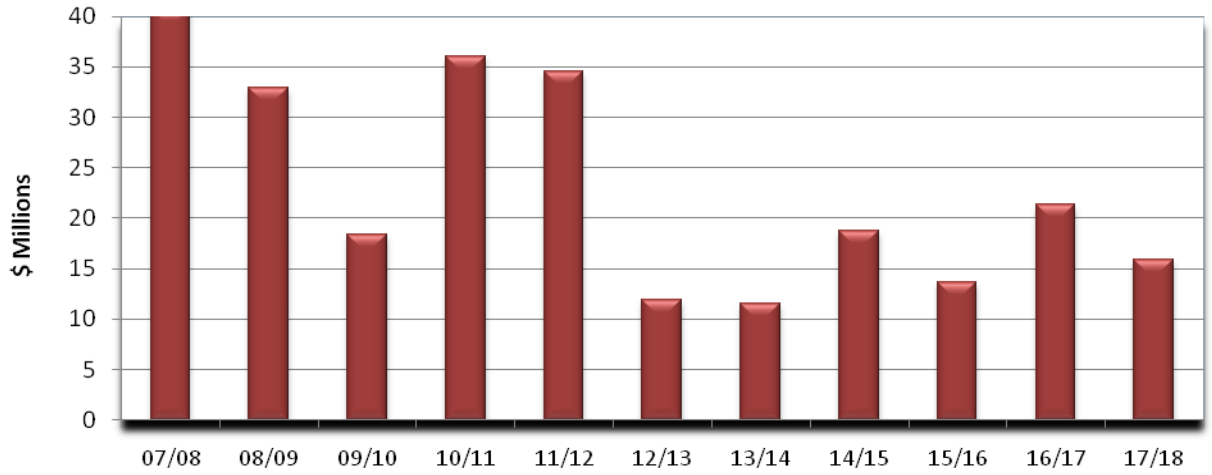


Figure ES-2 indicates that capital costs are averaging $33 million for the first five years, and tapering down to about half that level in the remaining years. The projected Regional Sewerage Program ten-year recommended expenditures are less than last year's adopted ten-year plan by approximately $151 million. In light of the current economic slowdown and anticipated decline in EDU growth, the Agency reviewed the FY2007/08 TYCIP and realigned capital projects to reflect the slower growth forecast for the Agency's service area. With the goal of keeping the Regional Capital Fund budget for the current and next two fiscal years under $90 million, a total of $99 million of capital projects that had been budgeted was deferred.

RP-1, RP-2 and RP-5 projects account for 84% of the total Regional Program capital budget over the next ten years. In FY 2008/09, the Agency will be completing several projects which are already in construction--the RP-5 Renewable Energy Efficiency Project (REEP); the RP-1 Aeration Basin Modifications; the San Bernardino Avenue Sewage Pump Station; the RP-1 Odor Control Phase 1B; the RP-4 Expansion to 14 MGD; and RP-1 Digester Rehabilitation (a sub-project of the RP-1 Facilities Improvements Project). Three other major projects are expected to be constructed in FY2008/09--Gas Cleaning Systems for RP-1, RP-2 & RP-5; RP-1 Digester No. 3 Roof Repair; and the RP-1 Dechlorination Station Upgrade (another sub-project of the RP-1 Facilities Improvements Project). In addition, in FY2008/09 and FY2009/10, some large, multi-year projects will start to have major expenditures -- the RP-5 Solids Handling Facility System Upgrades and Improvements; the RP-1 Dewatering Facility Expansion; and the RP-1 Asset Replacement Project. In FY2010/11 and FY2011/12, the Agency will be building a new Operations Laboratory at RP-5. In the following two years, the focus will be on Capital Upgrades and Equipment Improvements at all facilities.

Within the Regional Program, the key sources of revenue for the TYCIP are property taxes and supplemental capital contributions which are projected at $362 million and $137 million over the next ten years. Supplemental capital contributions come from calls to contracting agencies for Capital Capacity Reimbursement Payments (CCRPs), which are derived from connection fees. The expected cash receipts from CCRPs depend on the number of new Equivalent Dwelling Units (EDUs) added to the Regional Sewerage System each year. The expected number of EDUs is forecasted based on growth projections. Although the Contracting Agencies provided a projection of 4,000 to 7,000 EDUs per year for the next ten years, the current economic downturn has resulted in significantly lower levels of growth than expected. The Agency is projecting conservatively in alignment with the current economic downturn, and is assuming decreasing EDUs from 3,000 to 2,000 per year for the first three years, and gradually ramping up to 2,500 EDUs per year from the fifth year and thereafter (see discussion in Chapter 2).

Although the Agency's Ten-Year Budget provides adequate funding for the planned capital project expenditures, if the State budget gap were to continue and the Agency were to lose a significant portion of the Agency's property tax revenue, the Agency would need to review all of the Agency's budgets, including capital expenditures, reserves status, and rates, as well as to analyze the feasibility of deferring additional projects to later years.

Sustainable Energy Program

The Agency's four regional water recycling facilities, two solids handling facilities, and the Regional Composting Facility have a combined power usage of 11 megawatts. Biogas generated by anaerobic digesters is used for cogeneration of electricity that offsets 28% of this load. The Agency completed construction of the REEP project in April of 2008, essentially doubling the Agency's cogeneration capacity. The REEP Project will be fully commissioned in June of 2008. With an installed capacity of 3 megawatts, this facility will provide 75% of the power necessary to operate the RP-5 treatment facility and 100% of the heating and cooling for the Agency's 66,000 square-foot Headquarters buildings. The fuel for this generating facility will be supplied by the RP-5 Solids Handling Facility (SHF), where 600 wet tons per day of dairy manure is digested, and high quality methane gas will be produced. In addition, waste heat from the engine exhaust is captured to produce another 200 kilowatts of power.

Given the current rising cost of energy and heightened concern about greenhouse gas emissions, global climate change, and State-imposed requirements for reducing carbon emissions (Assembly Bill 32), the Agency has been conducting a more aggressive analysis of opportunities to reduce energy demand and generate renewable power. Among the most significant projects planned in the Regional Program is the Solar Power Project starting in FY2008/09. This major new initiative will result in the construction of facilities for generating up to 5 megawatts (MW) of solar power, including 1 MW installations at each of

five different locations—RP-1, RP-2, RP-5, CCWRF, and the Regional Composting Facility. Through the use of Power Purchase Agreements, an innovative financing approach, the Agency will not have to provide the up-front capital costs, but will have guaranteed access to low, stable, and predetermined power rates for the next twenty years. As part of a sustainable energy program, the solar construction will reduce the Agency's reliance on outside power sources and significantly reduce the Agency's greenhouse gas emissions (consistent with future State Assembly Bill 32 requirements).

OTHER IEUA CAPITAL PROGRAMS

Other IEUA capital improvement programs include the Recycled Water Program (WC Fund), the Recharge Water Program (RW Fund), the Non-Reclaimable Wastewater System Program (NC Fund), and the Organics Management Program (OM Fund).

Recycled Water Capital Program

The Regional Recycled Water System consists of a looped system which connects all four Regional Water Recycling Plants and a network of pipelines, pump stations and reservoirs. The future expansion of the regional recycled water system has been packaged in over 50 separate construction projects. The Regional Recycled Water Program priorities are shown in Figure 4-1.

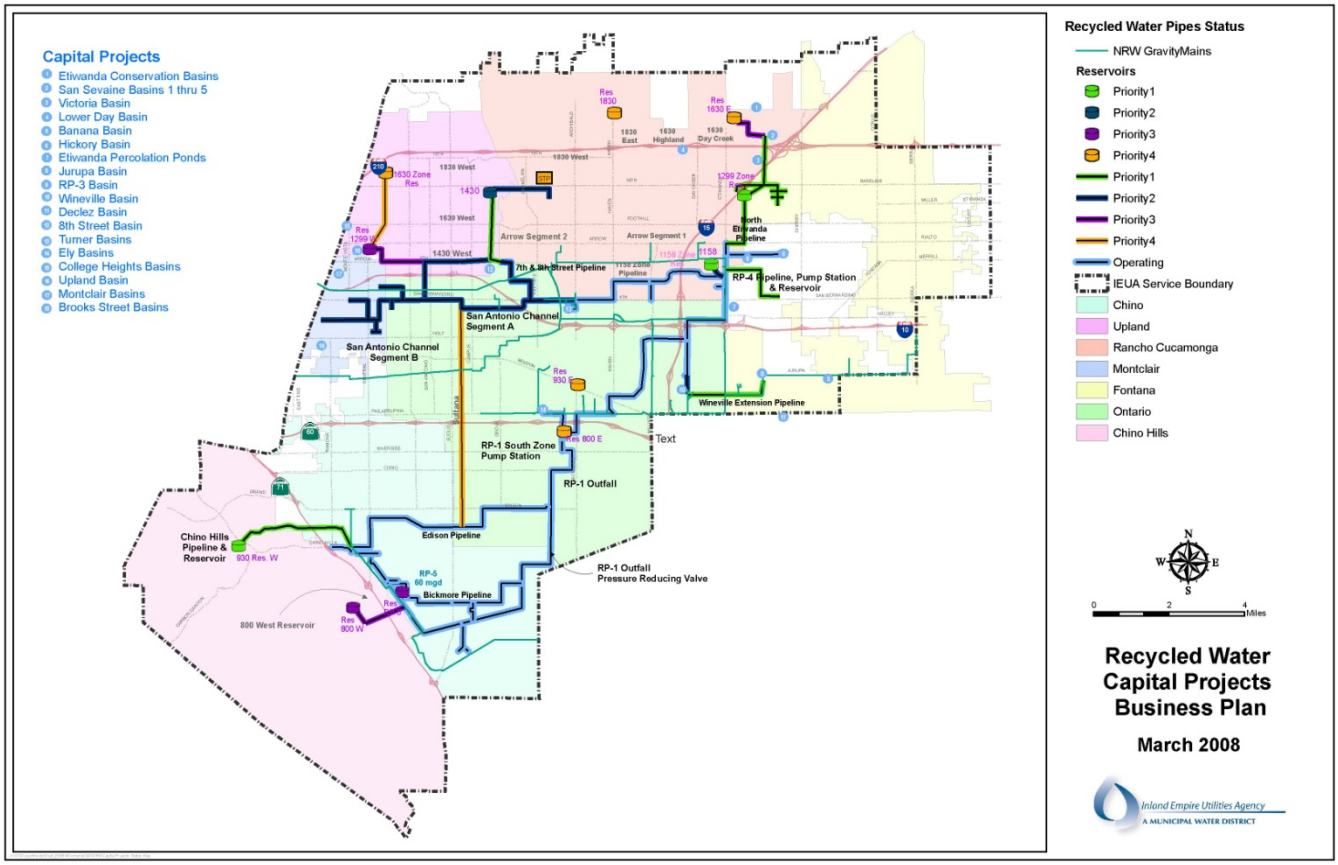
This year's TYCIP incorporates the 3-Year Recycled Water Business Plan which was adopted by the Board in November of 2007. The 3-Year Business Plan is intended to expedite the expansion of recycled water deliveries in response to potential reductions in water supplies from other sources. By committing to the Business Plan, the implementation of recycled water projects will be coordinated with all water supply agencies within the Chino Basin area. The implementation of the Business Plan will result in approximately 50,000 acre feet per year of new water supply for the region. This figure includes recycled water sales to customers and recycled water used for groundwater recharge. The current recycled water sales goal (FY2007/08) is 27,500 acre feet per year (AFY), expected to increase to 37,000 AFY within three years.

The total ten-year budget for Recycled Water Capital Improvement Program projects is $190.1 million. It includes $16.8 million for completion of projects which are already in construction; $134.3 million for the construction of the major new facilities included in the Business Plan, including pipelines, pump stations, and reservoirs; $5.5 million for the construction of local laterals; and $33.5 million for miscellaneous connections, retrofits, engineering reports, and cross-connection testing. The construction program is phased so that the most cost-effective projects can be brought on-line first.

To finance the Recycled Water 3-Year Business Plan and Program, Phases I–V, approximately 70% of the funding is expected to come from State Water Resources Control Board (SWRCB) and Santa Ana Watershed Project Authority (SAWPA) grants and 10% from U.S. Bureau of Reclamation (USBR) grants. The remaining 20% of funding will come from a combination or sources-- retrofit and lateral reimbursements, recycled water sales, and the MWD rebate programs. With this combination of funding sources, the recycled water program expenditures will not require any subsidy from the Regional Sewerage Program (RC and RO) funds. In addition, the Recycled Water Program's annual expenditures for debt service and operation and maintenance costs will be "self-funding" through recycled water sales revenue, MWD rebates, and other existing IEUA revenue sources.

Figure ES-3

IEUA Regional Recycled Water Program Priorities



The 3-Year Business Plan is intended to guide the expansion of the recycled water system for the fiscal years 2007-08 through 2010-11. The Business Plan is a short-term, action- oriented document that will be updated annually to adjust to the goals, timelines and projects that will expand the use of recycled water. A summary of the recycled water program follows. The emphasis in FY2008/09 is on completion

of the priority 1 projects in the northeast portion of the recycled water backbone system shown in Figure ES-3.

Regional Recycled Water Program Completed Activities/Projects:

- Program Planning — Feasibility Study 2002
- Environmental Documentation — PEIR 2002
- Phase I Funding — SWRCB 2003
- MWD LPP Rebate Agreement — Amended 2003
- New Customer Connections — 12 in 2004
- DHS Recharge Permit — Public Hearing 2003
- RWQCB Basin Plan Amendment — Approved February 2004
- Phase II Design Contract — June 2004
- Customer Technical Assistance Contracts — July 2004
- DWR $9 million Grant — September 2004
- Phase I Design Complete — September 2004
- Phase I Construction Complete — July 2005
- Phase II Funding
  - SWRCB Grant & Loan — SWRCB approved ($18 million)
  - USBR Grant — Congressional ($1 million grant)
- Customer Marketing Package — April 2005
- Recycled Water Sales — 13,000 AF/Y (FY 2006-2007)
- DPH and RWQCB Recharge Permit
- (Phase I/Phase II) — June 2007
- Edison Avenue Pipeline Complete — February 2007
- 7th & 8th Street Pipeline Complete — September 2007
- Bickmore Pipeline Complete — October 2007
- San Antonio Channel Pipeline-Segment A Complete — October 2007
- TP-1 South Zone Pump Station Complete — November 2007

Current/Near Term Projects Status as of June 2008:

- San Antonio Channel Pipeline-Segment B — June 2008
- MVWD Laterals — June 2008
- North Etiwanda Avenue Pipeline — June 2008
- RP-4 Reservoir, Pump Station and Pipeline — July 2008
- Northeast Projects — May 2009
- Northwest Projects — December 2008

Recharge Water Capital Program

This year's TYCIP recommends $7.5 million in capital project expenditures for groundwater recharge activities (RW Fund). The major expenditures are for Recharge Enhancement Projects. In addition, $1.5 million for lysimeters and well installations will be funded from the Recycled Water (WC) Fund. The plan continues with the implementation of the Recharge Master Plan adopted in January of 2002. The Master Plan outlined a recharge program in phases. Phase I, completed in the summer of 2005, included improvements to almost 20 recharge basins at several different sites. Operational experience in the ensuing 3 years identified lower infiltration rates, system limitations, and recharge capacity than envisioned during the original Recharge Master Plan period. Additional recharge capacity and operational flexibility are the goals of Phase II of the CBFIP. Made possible by a Department of Water Resources (DWR) grant and matching funding from IEUA and Chino Basin Watermaster (CBWM), the Phase II improvements will be completed and operational in early 2009 and will enhance the storm water capture, imported water delivery, and operational flexibility of the existing recharge facilities.

The future capital improvements to the recharge program (Phase III CBFIP) will be evaluated following completion of the update to the Chino Basin Recharge Master Plan, which will be completed by June 2010. In the interim, IEUA will evaluate the effectiveness of the constructed Phase II basin improvement projects towards increasing basin recharge capacity. In the time between completion of the Phase II improvements and the updated master plan, IEUA groundwater recharge staff will compile a prioritized list of basin improvement projects for incorporation into the updated master plan.

The major projects in the Recharge Water (RW) Capital Improvement Program are Basin Improvement Projects composed of several sub-projects. Additional projects are needed to enhance the Groundwater Recharge Program. Funding has been sought and obtained from DWR. A total grant of $5.28 million will provide partial financing of the following project components to expand and enhance existing basins:

- Lysimeters and Monitoring Wells
- New/Modified MWD Turnouts
- SCADA System Improvements
- Basin Berm Hardening
- Montclair Basins Dual Inlet; and
- Wet Basin Cleaning Techniques Development.

Non-Reclaimable Waste System (NRWS) Capital Program

This year's TYCIP recommends $37.2 million in capital project expenditures for the NRWS Program. The major capital expenditures include $16.8 million for the CSDLAC "4R" capital replacement charges and

$16.8 million for NRW system refurbishment. The major revenue sources for the NC Fund are: (1) monthly user and capacity fees charged to holders of capacity rights in the system; and (2) sale of new capacity rights.

In this ten-year plan, several actions are included to increase the economic value of the NRWS and to improve or retain its integrity. One of the goals of IEUA is to identify and assess the condition, rehabilitation and replacement costs for the NRWS. IEUA retained the services of PBS&J and performed an exhaustive condition assessment of the NRWS pipelines and infrastructure including manholes using Closed Circuit Tele Vision (CCTV) and Global Positioning System (GPS) technology. This assessment indicated that, overall, the pipelines that were inspected are in good condition, with 21% of the segments requiring no action. Nevertheless, the system is in need of cleaning, as over half of the inspected segments have debris accumulation or deposits in the pipeline and about 9 % of the system could not be inspected due to the excessive debris. Structural defects were found in 17% of the system that will require point repair and replacement over the next two years, and rehabilitation of pipelines over the following eight years by cast–in-place pipe lining techniques. About 5,100 feet of SARI pipeline, 15,000 feet of trunk lines of the Northern NRW system, and 4,500 feet of laterals require rehabilitation. A planning level condition assessment of the Philadelphia Avenue Pump Station found that it is aging and in need of improvements and upgrades. New pumps, instrumentation, controls and improvements to the ferric chloride system were recommended and are also included in the CIP schedule.

The SARI cleaning and condition assessment project was completed during the month of March, 2007 by IEUA staff. This project involved cleaning 3 miles of 27" sewer along the SARI line located within the IEUA service area and 1.5 miles of IEUA-owned pipeline. The results of the CCTV inspection were favorable with the pipelines in generally very good condition with no structural problems noted. IEUA staff will perform cleaning, inspecting, and condition assessment as an ongoing program to meet the recently-adopted requirements of the State-mandated Sanitary Sewer Management Program.

Organics Management Capital Program

IEUA's long-range plans for treating and utilizing biosolids as well as addressing the problems of dealing with manure and wood waste generated within its service area were addressed in the Chino Basin Organics Management Business Plan, dated May 31, 2001. The Business Plan created two key initiatives. The first was a comprehensive renewable energy reliability program, which resulted in the construction of a dairy manure digestion facility to generate methane gas and divert salts from the groundwater basin. In FY2006/07, after 4 years of successful pilot-scale operation, the facility was upgraded to full-scale and it was renamed the RP-5 Solids Handling Facility. In FY2007/08, additional digesters were added and the capacity was increased to more than double the original size.

The RP-5 Solids Handling Facility will be further upgraded and will be used to digest food waste with manure. Ultimately, as the dairies leave the area and the RP-2 Solids Handling Facility reaches its capacity, the RP-5 Solids Handling Facility will be used to produce biosolids from wastewater treatment. The planned capital improvements to the facility are discussed in Chapter 3 which covers the Regional Program. Since FY2006/07, the facility has been treated as part of IEUA's Regional Sewerage Program and its capital expenditures are included in the Regional Capital (RC) Fund budget. It is no longer included the Organics Management Program for budgetary purposes.

The second key organics management initiative is a local organics recycling program that includes the local communities as partners to divert organic solids from landfill disposal. IEUA partnered with the Los Angeles County Sanitation Districts (LACSD) to implement the joint goal of development of a sustainable biosolids management project. The Inland Empire Regional Composting Authority (IERCA) was formed by IEUA and LACSD as a Joint Powers Authority to share equally in the expenses of designing, constructing and operating a composting facility. The Inland Empire Regional Composting Facility (IERCF) was constructed adjacent to the IEUA Regional Water Recycling Facility No. 4 (RP-4). The IERCF recycles wood wastes from the local communities and biosolids from IEUA and LACSD wastewater facilities. Since startup in early 2007, the facility has ramped up to over 60% of its design capacity, and produces over 200,000 tons per year of high-quality compost.

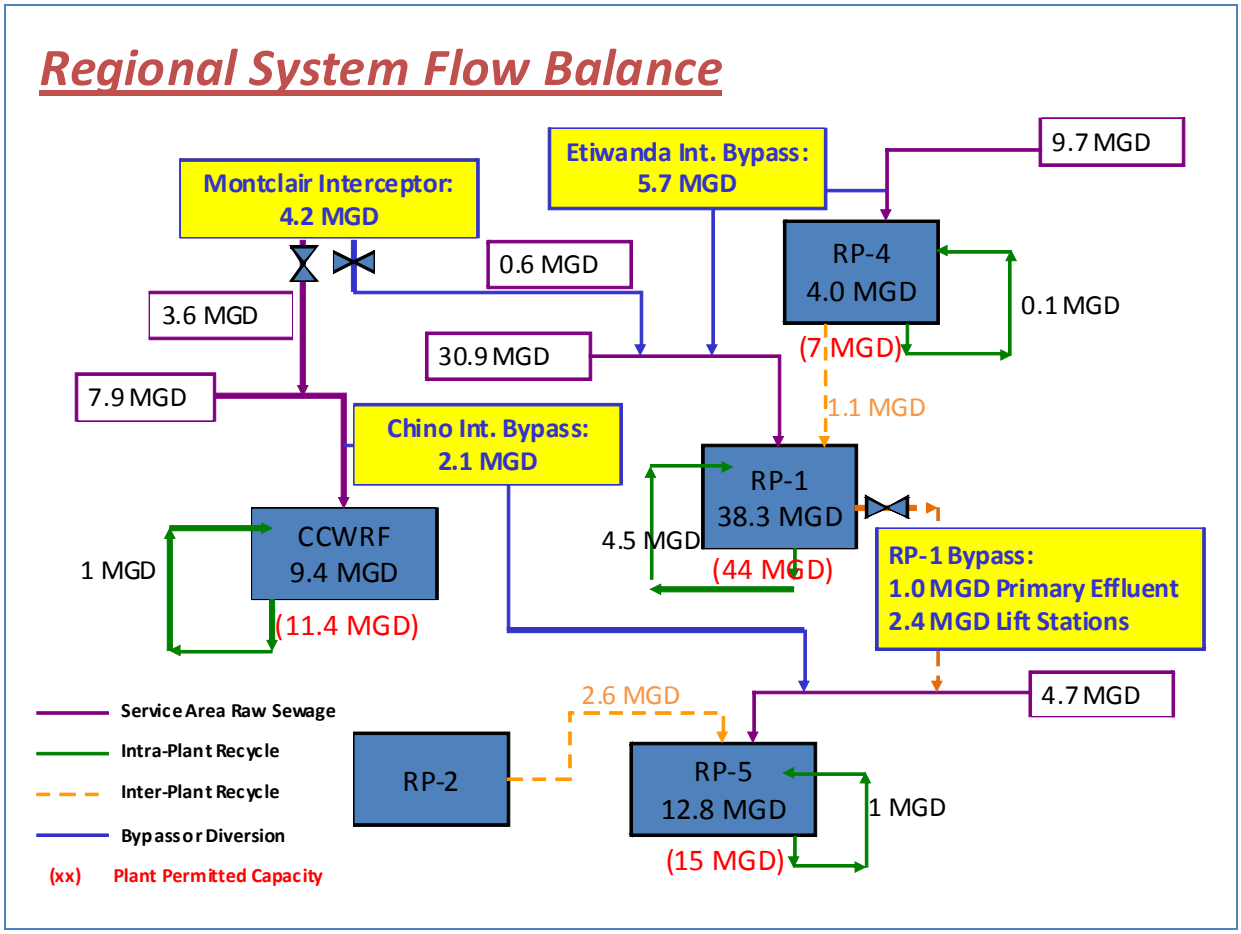
The IERCA is constructing a compost storage facility for the IERCF. The additional storage capacity will allow the IERCF to store compost during the winter season, when compost demand is low, in order to receive recycled materials year-round. This and other capital projects for the IERCF are included in the IERCA budget and are not part of IEUA's budget. IEUA's staff labor costs associated with the IERCF operations are reimbursable by IERCA and are included in the IEUA's Organics Management Program (OM Fund) budget. Beginning in FY2008/09, the Organics Management Program budget will be treated as part of the Regional Program budget.

TEN-YEAR FLOW FORECASTS

During FY2007/08, there were extensive efforts by the Operations Division, Planning & Water Resources Division, and Engineering & Construction Management Division to monitor wastewater flows at the regional plants and within the collection system. At each treatment plant, detailed accounts of flows and recycle streams entering and leaving the facilities were logged. Flow meters were recalibrated and influent and effluent readings compared to ensure quality data. Flow balances were performed for each facility and for the Agency as a whole, to ensure that service area flow quantities and recycle flow quantities could be distinguished (Figure ES-4). The flow monitoring and analysis efforts have helped to verify the current baselines for future flow projections. Currently, the total baseline raw sewage flow is

59.8 MGD and the adjusted total influent flow is 64.5 MGD. The difference is due to recycling wastewater and solids streams between plants.

Figure ES-4: Regional System Flow Balance Schematic



The data obtained from IEUA's influent flow monitoring efforts were combined with the data from annual collection system monitoring performed by the Contracting Agencies to verify flow rates from each service area. In addition, the Pretreatment & Source Control Department performed supplemental flow monitoring at strategic locations within the Regional Interceptor System. In the coming year, the Agency plans to perform more supplemental monitoring to better characterize existing flows and resolve any inconsistencies in the data.

Focused monitoring of several new residential areas revealed that the gallons per day of wastewater flows associated with each EDU is decreasing due to conservation practices and the use of water efficient appliances in new and remodeled homes. While the current overall average for the whole Agency is roughly 234 gallons per day per EDU (gpd/EDU), a recent special monitoring study at The

Preserve development in the City of Chino supported a wastewater generation factor of 200 gpd/EDU for new development. In the past, wastewater flow rates have been projected using a factor of 270 gpd/EDU, (as specified in the Regional Sewage Service Contract—Exhibit J). IEUA still plans its capital projects around Exhibit J, but the average flow factor per EDU has decreased due to new technology and conservation efforts and it is expected to continue to decrease.

In FY2016/17, the forecasted total system flow is almost 70 MGD, including the recycle streams. The overall treatment plant capacity utilization is expected to increase to 78 percent at the end of ten years. This assumes that the RP-5 capacity will be increased by 3 MGD through a combination of: (1) re-rating plant unit processes based on updated design criteria and permit requirements; (2) field stress testing and performance demonstrations; and (3) limited, targeted expansion of certain unit processes using newer, innovative technologies. The RP-5/RP-2 Capacity Improvements Project, which is now in the predesign stage, will more clearly define the realistic target for capacity improvement without a major plant expansion. The Agency has chosen this approach because the flow forecast for RP-5 in Exhibit VIII indicates that a full plant expansion is not needed in the next ten years under the expected growth scenario. However, if higher growth and/or higher wastewater flow rates per EDU were to occur a few years from now, then the Agency would proceed with design and construction of an expansion.

By the end of the ten years, through continued growth as well as the utilization of diversion and bypass capabilities, it is expected that the influent flow to RP-4 will increase by about 50 percent, resulting in the capacity utilization at RP-4 being higher than at the other facilities. This will be possible because of the recent completion this year of the RP-4 capacity expansion to 14 MGD and the completion this coming year of the San Bernardino Pump Station. In practice, Agency-wide capacity utilization will be balanced and optimized between facilities to achieve the lowest operational cost while satisfying recycled water demands and water quality requirements. Fully utilizing capacity at RP-4 allows the Agency to satisfy recycled water demands expected in the higher recycled water pressure zones at the least pumping cost.

The capacity utilization will be optimized between the other three facilities--CCWRF, RP-1, and RP-5--using the Agency's bypass and diversion capabilities. For example, using the Montclair Diversion, approximately 3.6 MGD could be diverted from CCWRF to RP-1. Evaluations performed with the Agency's "Optimo" Flow Balancing and Optimization Model, as well as Unit Production Cost (UPC) tracking, have demonstrated that unit treatment costs at RP-1 ($/MG of water produced) are generally lower than at the other Regional Plants and that it is cost-effective to treat as much water there as possible. However, the lower treatment cost at RP-1 needs to be balanced against the higher energy cost for pumping wastewater from the Montclair Diversion to RP-1. Furthermore, the demand for recycled water in the pressure zones served by CCWRF is quite high in the summer, and the optimization modeling indicated that the demand will be high enough to use all of the recycled water that CCWRF can

produce within three years. Therefore, it is likely that capacity utilization at CCWRF will be near 100 percent at the end of the ten years.

NEW PLANNING INITIATIVES

Several emerging planning issues are discussed in Chapter 9 of this document. Three important initiatives are the Agency-wide Facilities Balancing and Flow Optimization; the Sustainable Energy Program; and the Alternative/Innovative Technologies Assessment. These initiatives are being addressed through the joint efforts of the Operations, Engineering, Planning & Water Resources, and Finance Divisions.

As discussed above, the flow monitoring and flow balancing efforts that were undertaken in FY2007/08 have helped to clarify the Agency's options for optimizing flow distribution between facilities. Several diversion scenarios between the Regional Plants (RPs) were analyzed and stress tests in the field at some of the RPs were conducted to identify the bottlenecks within the plants. For example, the stress testing helped to determine the optimum amount of bypass flow from RP-1 that could be treated at RP-5. The Agency plans to continue developing and using the Optimo model as a planning tool to analyze various scenarios and provide an objective basis for better decision-making. The Optimo model has already been used for completion of an RP-2 capacity analysis and to evaluate recycled water supplies versus demands and pumping costs. It will also be applied for planning and predesign evaluations pertaining to potential liquids facilities expansions and flow-routing alternatives. Besides developing the Optimo Model, during the past fiscal year, the Agency has invested in updating its Sewer Collection System Model and its Recycled Water Model. A "Modeling Team" was set up, consisting of model managers and core users from various departments, to coordinate the use of the three models. This will continue to be an important planning activity in the future.

Another emerging planning issue is the accelerated development of sustainable energy in response to new legislation and higher energy prices. The Agency will be greatly affected by the implementation of California Assembly Bill (AB) 32, which requires implementation of programs starting in 2012 to achieve a 20% reduction in greenhouse gas emissions in the year 2020. Meeting the requirements of this legislation is one of the biggest challenges facing wastewater agencies. IEUA is participating in the development of monitoring requirements and other components of this legislation as they are taking shape. Initial state agency recommendations for actions to implement AB 32 include development of solar energy and use of water recycling, two areas that this Ten-Year Plan addresses through major new initiatives.

Finally, as part of long-range planning for future plant improvements and capacity expansions, the Agency is stepping up its research and evaluation of newer technologies. Chapter 9 discusses some of the research underway in new disinfection and filtration methods. Some of these alternatives may be applied at RP-5 and RP-2 to address bottlenecks and provide needed redundancy at the least cost to the Agency. The Agency also continues to work with the State Health Department and Regional Water Quality Control Board to gain approval for innovative treatment alternatives, such as the tertiary filter capacity re-rating study at CCWRF and the potential use of ultraviolet disinfection and membrane bioreactors at RP-5.

CHAPTER 1 I E U A	TYCIP

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

1.2 IEUA's Mission

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

1. City of Chino
2. City of Chino Hills
3. Cucamonga Valley Water District (CVWD)
4. City of Fontana
5. City of Montclair
6. City of Ontario
7. City of Upland

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

The residents of the Chino Basin area voted to form the IEUA (originally incorporated as the Chino Basin Municipal Water District) in June 1950. The IEUA is governed by a five-member Board of Directors (Board), elected to represent individual areas or Divisions. The IEUA became a member of the Metropolitan Water District of Southern California (MWD) in 1950 and the Santa Ana Watershed Project Authority (SAWPA) in 1972. The IEUA is a representative on the MWD, SAWPA and Chino Basin Watermaster Board of Directors. The IEUA, its Board, and staff, strive to ensure that reliable, cost-effective water utility services, which protect and enhance the environment while fostering economic development, are available when needed.

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

1.3 Wastewater Facilities Master Planning

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

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

1.4 Related Planning Activities

This TYCIP is consistent with the WFMP and Programmatic EIR (certified on June 28, 2002). The WFMP, along with the Recycled Water Feasibility Study (2002) and the Organics Management Strategy Business Plan (2002), constitute a "Program Master Plan." It integrates 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 AGENCIES

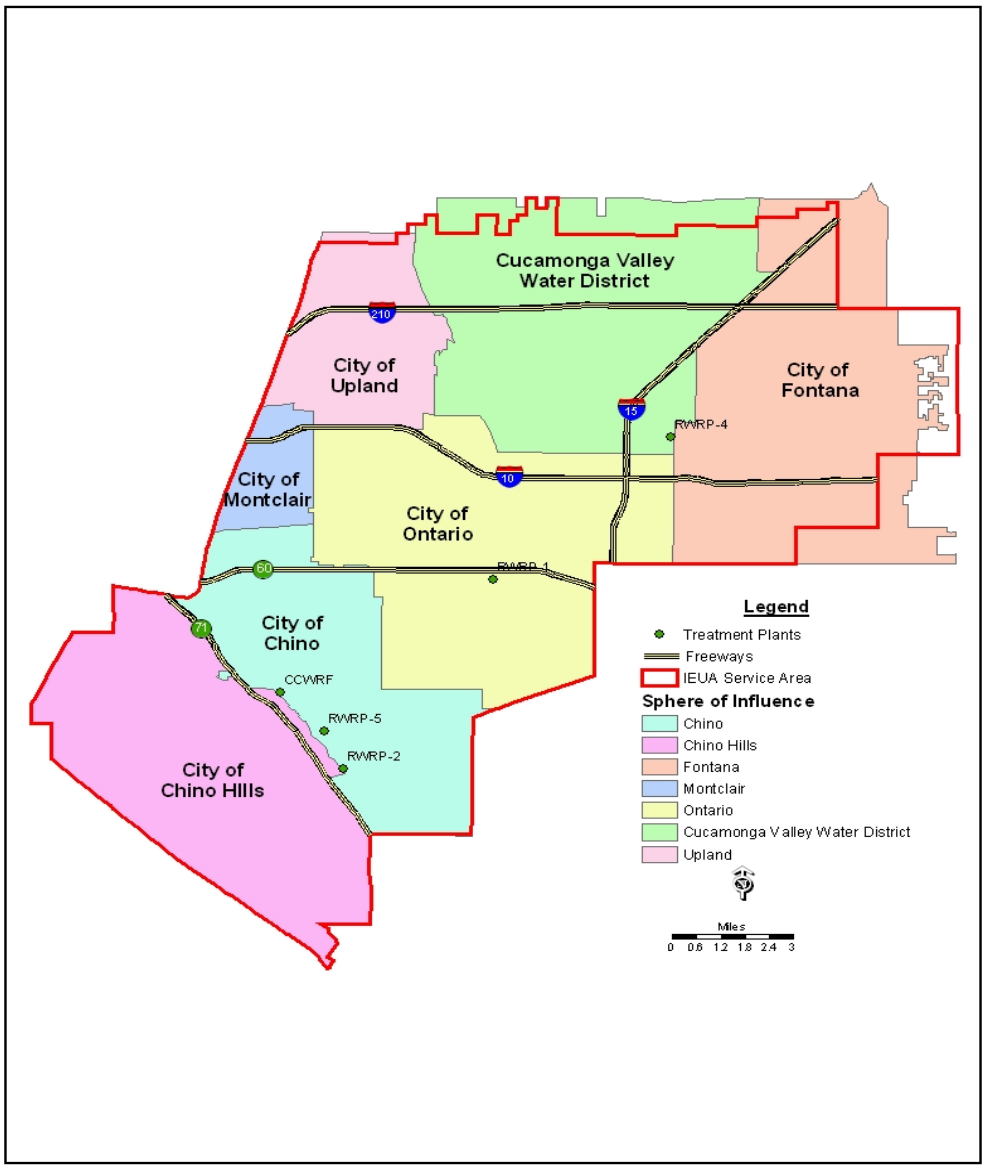
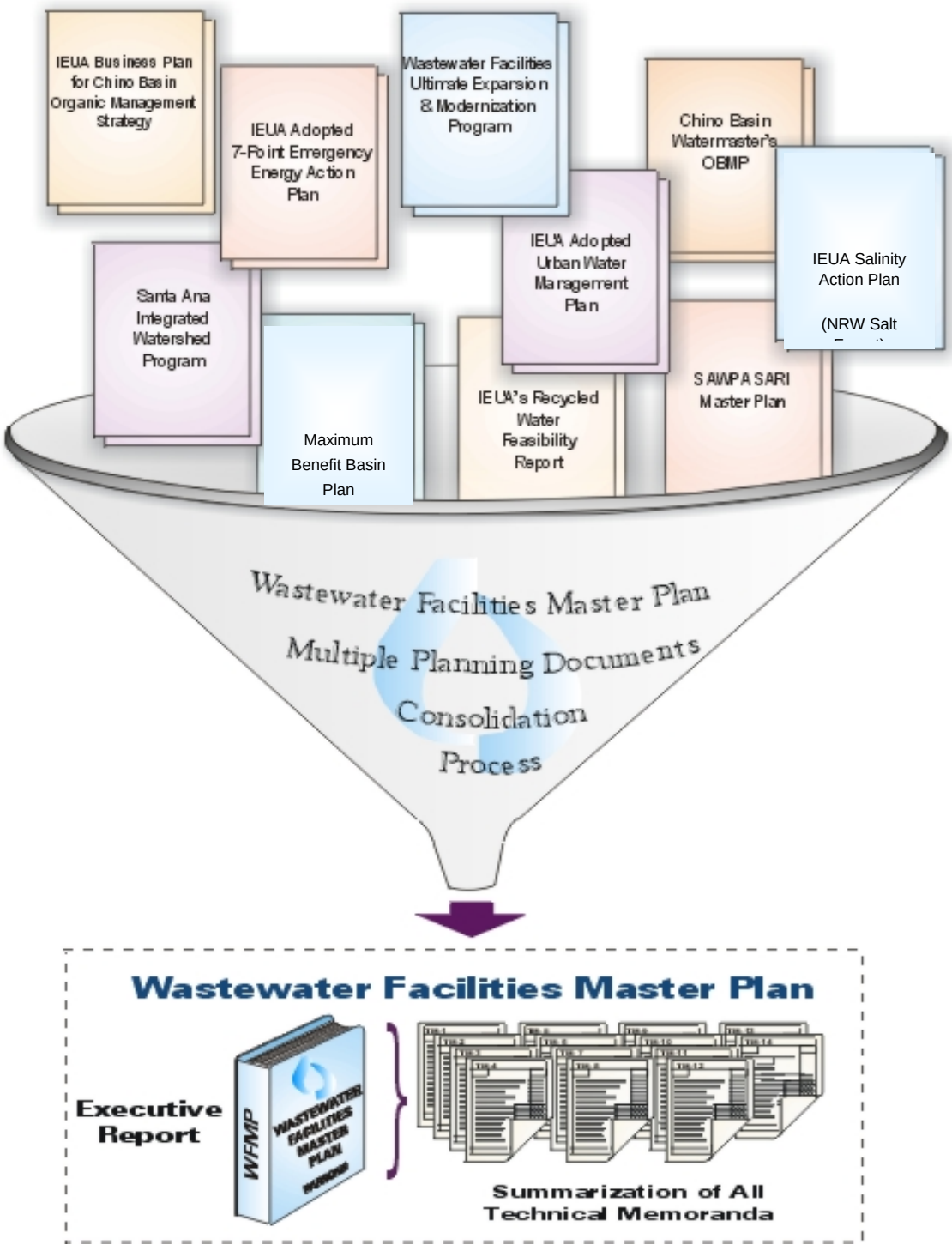


FIGURE 1-2

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. A looped pipeline, along with storage reservoirs, and pump stations has been constructed that expand and interconnect the IEUA recycled water distribution system with local recycled water customers as well as groundwater recharge basins. Construction and improvement of 18 groundwater recharge basins have been completed, allowing for conservation of storm water, recycled water, and imported water in the underground Chino Basin. The 100,000 acre-ft per year (AFY) MWD Dry Year Yield (DYY) Program, approved in June 2003, funds six new groundwater treatment facilities that allow optimal use of the Chino Basin groundwater resource in accordance with the goals of the OBMP. In June 2007, MWD agreed to fund $1.5 million, for capital expenses plus technical and environmental studies, to expand the DYY Program in the Chino Basin to 150,000 AFY.

1.4.2 IEUA Recycled Water Feasibility Study

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

IEUA's adopted Recycled Water Feasibility Study (August 2002), indicated that by the year 2020 the projected use of recycled water would exceed 70,000 acre-feet per year (AFY), with over 1,700 customers projected to be connected to the regional recycled water distribution system. Subsequent implementation of the 2005 Recycled Water Program Implementation Plan and the 2005 IEUA Urban Water Management Plan showed that a total of over 93,000 AFY of recycled water could be delivered to over 1,900 potential customers. IEUA will recharge up to 33,800 AFY of recycled water (blended with storm water and imported water to meet the overproduction replenishment needs) into the Chino Groundwater Basin and facilitate direct deliveries of over 69,000 AFY of recycled water to local customers. IEUA's goal is to use as much recycled water for local beneficial uses as is economically practical and replenish the Chino Groundwater Basin. IEUA received a permit for recycled water recharge on April 15, 2005. IEUA expects to receive a second permit in the June 2007 that will allow an expansion of the recharge program for recycled water supplies throughout the Chino Basin.

The 2002 Feasibility Study recommended and the 2005 Recycled Water Program Implementation Plan confirmed that interconnection of all four of the IEUA's regional treatment plants in a looped distribution system would maximize beneficial use of recycled water, increase system reliability and flexibility, and provide other operational and cost reducing benefits. The looped system will also allow more customers to be served and provide the flexibility to release surplus recycled water to spreading basins throughout the Basin for recharge.

Over 50 projects with multiple priorities consisting of pipelines pump stations, and reservoirs have been identified to be implemented over the next ten years (in two year intervals). IEUA is seeking outside funding, grants and low interest loans totaling $ 158 million, for the program from the State of California (Department of Water Resources (DWR)) and State Water Resources Control Board (SWRCB) and the U.S. Bureau of Reclamation (USBR). In 2003, IEUA amended its original (1996) local projects program agreement with MWD to include all four wastewater treatment plants. The original 1996 agreement with MWD only allowed recycled water deliveries from the Carbon Canyon Water Reclamation Facility. The program will provide IEUA with over $2 million annually from the $154/AF rebate (up to 13,500 AFY). IEUA has submitted a new LRP application to MWD (August 2007) that would provide $250/AF rebate funding for projects up to 50,000 AFY.

In Fiscal Year 2007/08, in response to potential water supply shortages and reductions in MWD imported water supplies, IEUA accelerated implementation of the recycled water program deliveries by committing to a 3-Year Business Plan. The 3-Year Business Plan is intended to be a "short-term" action-

oriented document that will be updated annually to adjust the goals, timelines and projects that will expand the use of recycled water. The current recycled water program and 3-Year Business Plan are discussed in more detail in Chapter 4 of this document.

1.4.4 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. As a component of the Chino Basin Watermaster's OBMP, the recharge program is described in the Recharge Master Plan, Phase II Report (August, 2001). In January of 2002, the IEUA Board of Directors approved the Recharge Master Plan Implementation Memorandum of Agreement, between Chino Basin Watermaster, Chino Basin Water Conservation District, San Bernardino County Flood Control District (SBCFCD), and IEUA. Members of these four agencies have formed a Groundwater Recharge Coordinating Committee to implement the initial $40-million program entitled the Chino Basin Facilities Improvement Project (CBFIP) that resulted in construction projects to improve facilities for recharge program. The CBFIP is described further in Chapter 5 of this document.

1.4.5 Santa Ana Integrated Watershed Program

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

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

SAWPA is pursuing these elements simultaneously based on the availability of state grant funding and the aggregated needs of SAWPA member agencies, including the IEUA, water districts, cities, counties, and several environmental groups. SAWPA through its integrated planning grant, $25 million, is providing a $4.9 million to grant to IEUA for recycled water projects during FY 2008-09. In addition, SAWPA is updating its watershed management program through its "One Water-One Watershed" initiative. The updated plan will provide the basis for seeking Proposition 50 grant funds.

1.4.6 Maximum Benefit Basin Plan

The Regional Water Quality Control Board, Santa Ana Region, (Regional Board) adopted amendments to the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) on January 22, 2004 incorporating a "maximum benefit" proposal recommended by IEUA and Chino Basin Watermaster. The Maximum Benefit Basin Plan establishes new groundwater Total Dissolved Solids (TDS) and Total Inorganic Nitrogen (TIN) water quality objectives and waste load allocations that allow the use of recycled water for groundwater recharge while providing reasonable protection of the groundwater quality in the region.

The Maximum Benefit Basin Plan was an outgrowth of the "TIN/TDS Task Force" in which IEUA participated since 1995/96. The Task Force included the Regional Board and 22 water supply and wastewater agencies throughout the region. Coordinated by SAWPA, the Task Force completed multimillion dollar studies to review groundwater TDS and nitrogen objectives, groundwater subbasin boundaries, the TIN and TDS wasteload allocations and other components of the Regional Board's nitrogen and TDS management plans. The purpose of this study was to develop more scientifically defensible water quality objectives and avoid any unnecessary constraints on water recycling opportunities.

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

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

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

1.4.7 Chino Basin Organics Management Strategy Business Plan

The Chino Basin Organics Management Business Plan developed a strategy to manage the organics in the Chino Basin, including biosolids, dairy animal manure, and composting of local community green waste material. The Business Plan was published in May 2001, along with a Project Report containing ten Technical Memoranda, which provided the background and basis for the recommendations in the Business Plan. The IEUA Board of Directors certified the Programmatic EIR for the Business Plan in June 2002 and adopted the Business Plan together with the Wastewater Facilities Master Plan and Recycled Water Feasibility Study in August 2002. The Business Plan presented specific short-term and long-term recommendations as well as outlining of the steps and considerations that must be addressed in implementing projects consistent with the IEUA's goals and mission.

The Business Plan, as an integral tool for implementing the Chino Basin Watermaster's Optimum Basin Management Plan (OBMP) includes two key initiatives. The first is a comprehensive renewable energy reliability program and the second initiative is a local organics recycling program. Implementation of those initiatives will advance one of the paramount goals of the Business Plan: protection of the Chino Groundwater Basin from infiltration of salts and nitrogen compounds, in agricultural wastes. As a result, IEUA will avoid the costly removal of those contaminants from ground water, later.

As a major milestone for implementation of the Business Plan, construction of the Inland Empire Regional Composting Facility (IERCF) was completed in 2007. Currently, the IERCF is operating at 65 percent of capacity. The facility will convert the majority of biosolids generated at the IEUA's water recycling facilities into compost. The existing RP-5 Renewable Energy Digester Facility will be expanded and modified to generate additional digester gas which will be used to power Agency facilities at RP-5.

1.4.8 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:

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

Through this plan, IEUA has made major strides in building self-sufficiency and local control over long-term energy supplies and assisting the region and California in meeting their energy needs. Completion

of the RP-5 Renewable Energy Efficiency Project this year has essentially doubled the Agency's ability to cogenerate electricity using digester biogas. As discussed in more detail in Chapters 5 and 9, IEUA's energy sustainability program is evolving in response to both the record high energy prices and the new legislation (AB 32) governing green house gas emissions. The Solar Power Project is a major new project that will be implemented in FY2008/09, providing the Agency with up to 5 Megawatts of power from renewable, non-polluting energy sources.

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

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

- Maximizing 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 by optimizing the use of chemicals at the facilities.

As an outgrowth of the Salinity Management Plan, IEUA also developed an NRW Action Plan with extensive coordination and discussion with IEUA's Regional Technical and Policy Committees, the Chino Basin Watermaster, and the Regional Board. IEUA also expects to achieve substantial avoided costs and valuable benefits for the region as a result of implementation of the current NRW Action Plan.

The NRW Action Plan adheres to the IEUA Board's policy of phased implementation of budgets and rates in order to provide economic incentives for the export of brine wastes through the NRW system. The Agency's FY 2008/2009 Budget and this Ten-Year CIP incorporate specific budget options that were developed in coordination with the IEUA's Regional Technical and Policy Committees. Further details are provided in Chapter 6.

1.5 IEUA 2005 Urban Water Management Plan

In 2005, IEUA updated the 2000 Urban Water Management Plan (UWMP) in accordance with State of California Law. It provides an overview of current and projected water supplies and demands over the next twenty years, a description of the water conservation wand water management activities that are planned and addresses the topics of reliability, water quality and opportunities to maximize local water sources, including conservation, groundwater and recycled water, and to minimize the need for additional imported water supplies within IEUA's service area. IEUA will be updating this plan for the 2010 required UWMP.

1.6 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 Facilities 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.

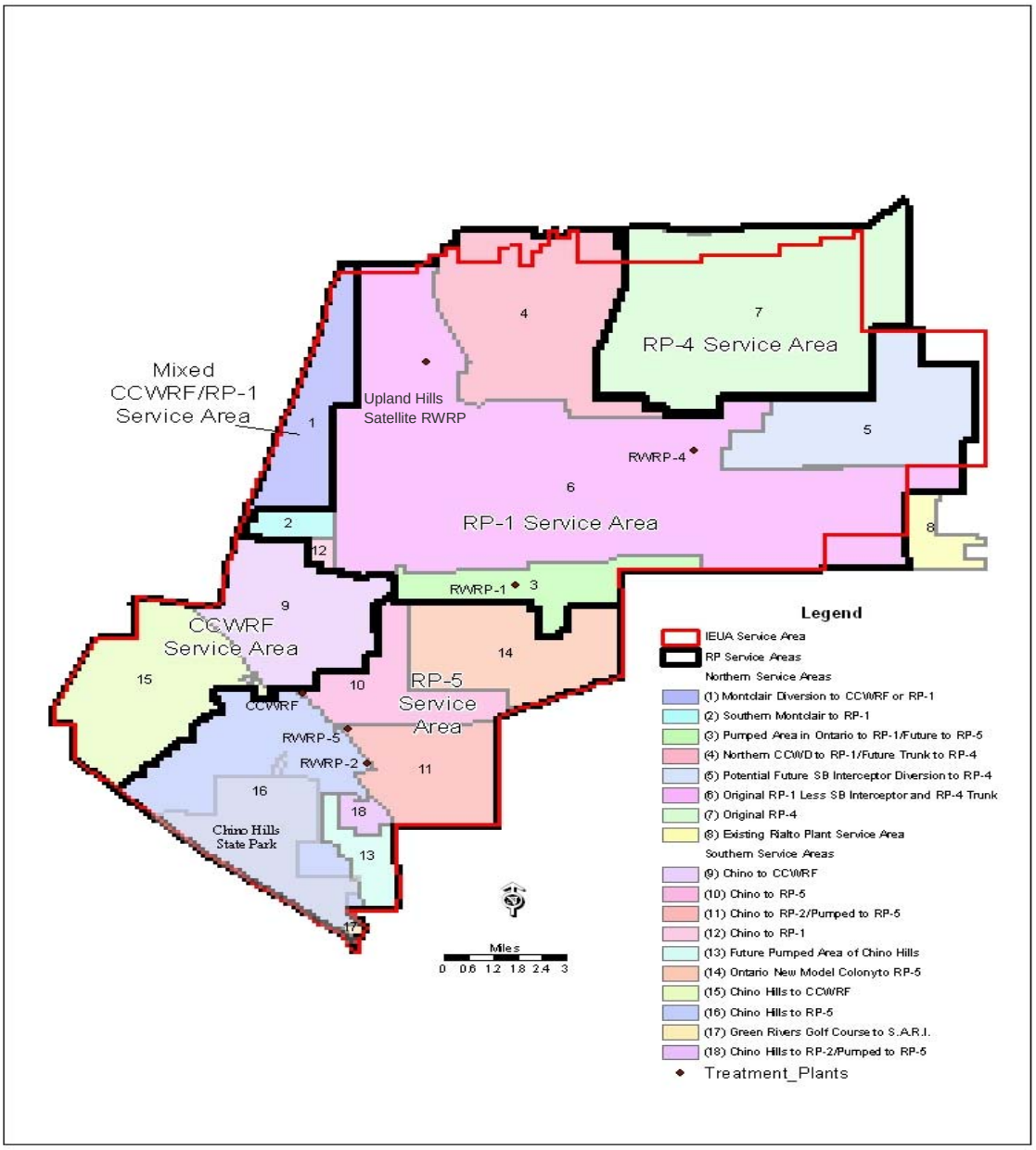
1.6.1 Water Recycling Plants

Figure 1-3 illustrates the service area boundaries for IEUA's four water recycling plants. The four Regional facilities are: Regional Plant No. 1 (RP-1), Regional Plant No. 4 (RP-4), Regional Plant No. 5 (RP-5), and Carbon Canyon Wastewater Reclamation Facility (CCWRF). The biosolids produced at RP-4 and RP-1 are thickened, digested, and dewatered at solids handling facilities located at RP-1. Similarly, the CCWRF and RP-5 biosolids are treated at Regional Plant No. 2 (RP-2). The stabilized and dewatered solids are transported to the Inland Empire Regional Composting Facility for recycling into soil amendment.

RP-5 began treating and discharging wastewater in March 2004. At that time, the RP-2 wastewater influent was diverted to RP-5 for treatment. -. Since portions of RP-2 are located in the 100-year flood plain, liquid wastewater processing at RP-2 was discontinued and the plant is being used only for processing solids from RP-5 and CCWRF. Biosolids 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 Regional Interceptor System

IEUA has a network of regional interceptor sewers that can be used to bypass flow from one treatment plant to another to balance and optimize the use of treatment capacity. Currently, the regional interceptors can bypass flow from RP-4 to RP-1 and from CCWRF to RP-5. In addition, primary effluent can be bypassed from the RP-1 equalization basins to RP-5. Figure 1-4 illustrates the existing regional trunk wastewater system and tributary areas. The main routes for bypassing/diverting flow are:

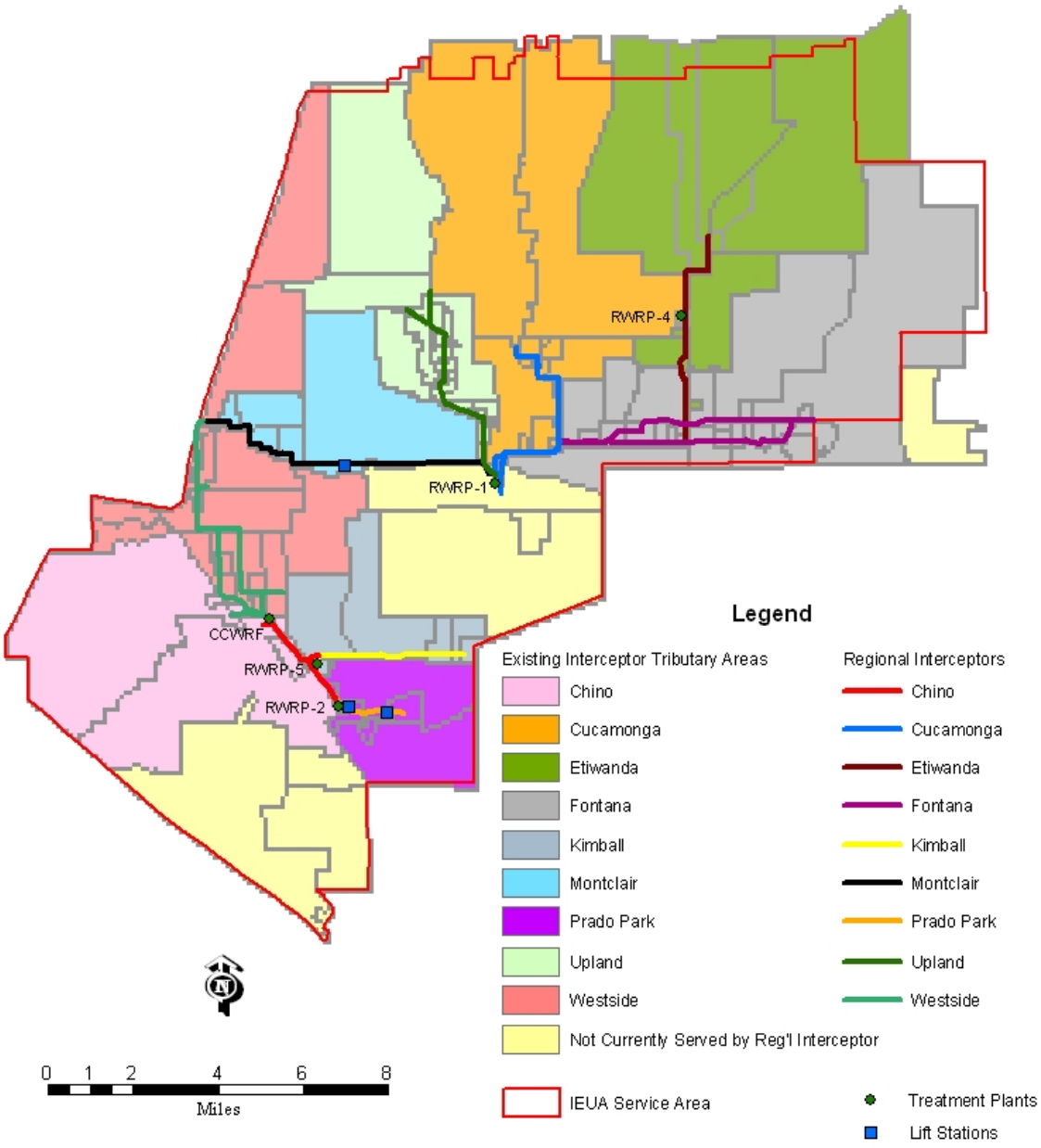
- Operators can bypass up to 6 million gallons per day (MGD) from RP-4 to RP-1 through the Etiwanda Interceptor,
- Operators can bypass several MGD from CCWRF to RP-5 through the Chino Interceptor,
- A portion of the flow (approximately 3.6 MGD) from the Cities of Upland and Montclair can be diverted either to RP-1, through the Montclair Interceptor, or to CCWRF through the Westside Interceptor. Typically, the flow is routed to CCWRF to avoid pumping costs, but it can be pumped to RP-1 by the Montclair Pump Station, and
- Primary effluent can be diverted from the RP-1 equalization basins into the Eastside Interceptor and then it flows by gravity to RP-5. Up to 9 MGD could potentially be bypassed; however, operational experience has shown that 1 to 3 MGD is currently the optimum in terms of wastewater treatment plant performance.

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

- The Montclair Lift Station pumps wastewater from portions of Montclair, Upland, and Chino to RP-1,
- The Prado Park Lift Station pumps wastewater from the Prado Regional Park in the City of Chino to RP-5, and
- A new lift station was constructed at RP-2 in FY 2003/2004 to pump the flow from the southeastern portions of the cities of Chino and Chino Hills to RP-5.
- A portion of the flow from Fontana that is tributary to RP-1 will be diverted to RP-4 through the San Bernardino Trunk and Lift Station when it is complete in FY2008/09.

FIGURE 1-4

EXISTING REGIONAL TRUNK WASTEWATER SYSTEM AND TRIBUTARY AREAS

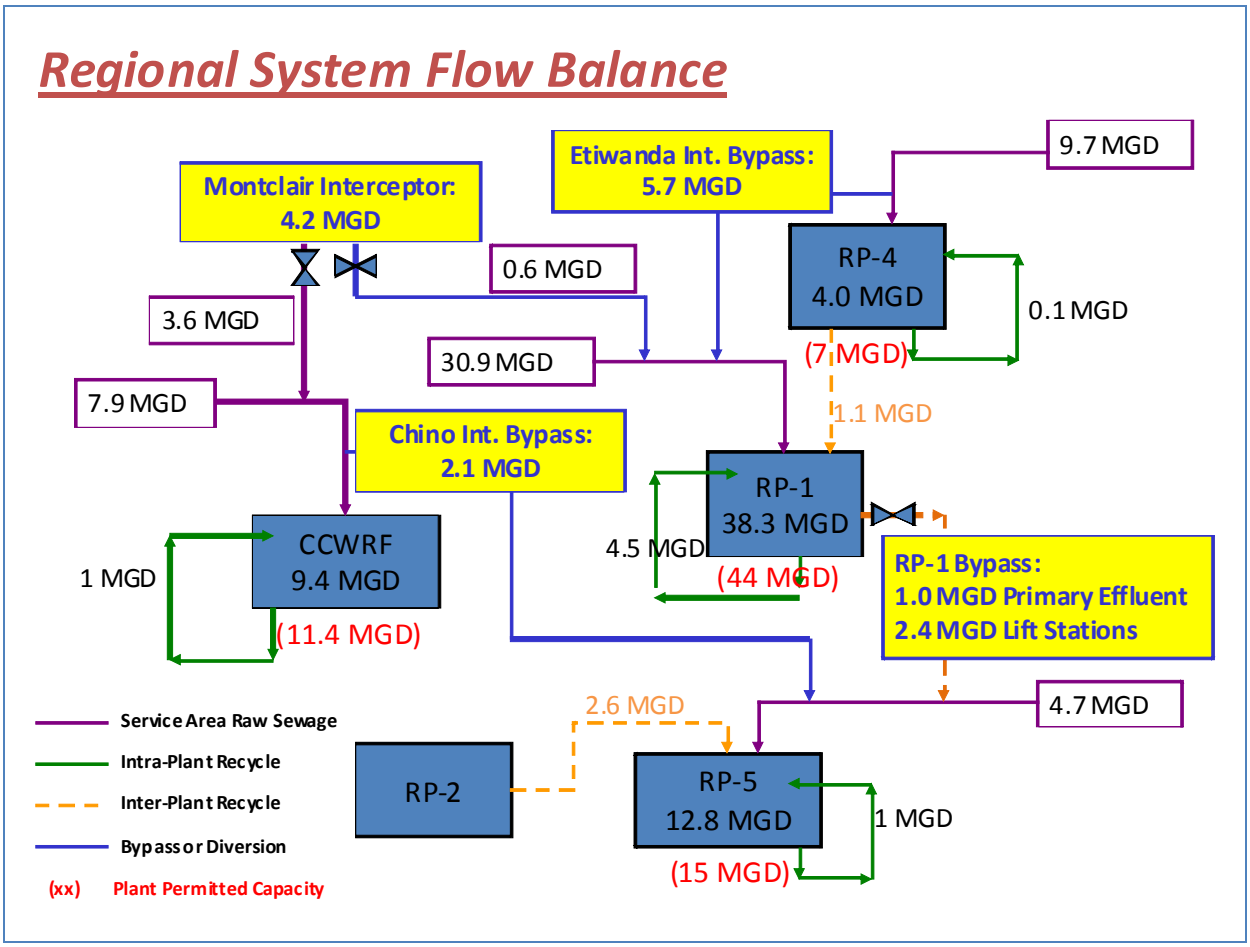


2.0 WASTEWATER FLOW PROJECTIONS

Exhibits I through IV (at the end of this report) show total wastewater flow projections for the next ten years from IEUA's service area. Exhibits V through VIII show the flow projections individually for the RP-1, RP-4, CCWRF and RP-5 service areas. The flow projections are compared to current and future planned plant capacities. On these exhibits, the "baseline" flow is defined as raw sewage flow from the service area that is tributary to a treatment plant. The baseline projections do not reflect any of the current or planned diversions, bypasses, or recycle streams. The "adjusted" flow does include bypasses, diversions and recycle streams and it is the actual flow that was received at a treatment plant. The adjusted flow, totalized for the whole Agency, is higher than the baseline flow because of the recycle streams, such as the liquid side streams from RP-2 that are treated at RP-5. Exhibits V through VIII also point out any major CIP projects planned in the next ten years that will result in a re-routing of flow from one treatment plant to another. Appendix A contains the incremental EDU growth projections provided by the Contracting Agencies.

During FY2007/08, there were extensive efforts by the Operations Division, Planning & Water Resources Division, and Engineering & Construction Management Division to monitor wastewater flows at the regional plants and within the collection system (Figure 2-1). At each treatment plant, detailed accounts of flows and recycle streams entering and leaving the facilities were logged. Flow meters were recalibrated and influent and effluent readings compared to ensure quality data. Flow balances were performed for each facility and for the Agency as a whole, to ensure that service area flow quantities and recycle flow quantities could be distinguished. This helped to clarify the Agency's options for optimizing flow distribution between facilities. It also verified the current baseline for future flow projections. Several diversion scenarios between the Regional Plants (RPs) were analyzed and stress tests at some of the RPs were conducted to determine the bottlenecks within the plant. For example, the stress testing at RP-5 helped to determine the optimum amount of bypass flow from RP-1 that could be treated at RP-5.

Figure 2-1 – Regional System Flow Balance Schematic



The data obtained from IEUA's influent flow monitoring efforts were combined with the data from annual collection system monitoring performed by the Contracting Agencies to verify flow rates from each service area. This study revealed that the gallons per day of wastewater flows associated with each EDU is decreasing due to conservation practices and the use of water efficient appliances in new and remodeled homes. While the current overall average for the whole Agency is roughly 234 gallons per day per EDU (gpd/EDU), a recent special monitoring study at The Preserve development in the City of Chino supported a wastewater generation factor of 200 gpd/EDU for new development. In the past, wastewater flow rates have been projected using a factor of 270 gpd/EDU, as specified in the Regional Sewage Service Contract-Exhibit J. IEUA still plans its capital projects around Exhibit J, but the average flow factor per EDU has decreased due to new technology and conservation efforts and it is expected to

continue to decrease. The flow forecasts in Exhibits I through VIII present two different scenarios for comparison: one scenario uses 250 gpd/EDU for new development and the other uses 200 gpd/EDU.

2.1 Anticipated Growth

The anticipated flow increases within the system are summarized in Table 2-1. In June of 2006, IEUA asked the noted economist of the Inland Empire region, Dr. John Husing, to prepare a "build-out" forecast for the IEUA service area. Dr. Husing's report forecasted build-out by 2030. The pace of development will be different for each sector of construction. The industrial build-out is anticipated to occur in approximately 2018, followed by office market and single family residential build-out in roughly 2023. The multi-family residential market and retail-commercial developments are expected to reach saturation in 2020 and 2030, respectively.

Significant development activity is expected in all of the tributary areas to IEUA's water recycling plants, with some areas experiencing more growth than others. Higher growth is expected in the tributary areas for CCWRF and RP-5 due to annexation of the agricultural preserve in southeastern Chino and southern Ontario and approval of development plans in those areas. The tributary areas around RP-1 and RP-4 are expected to have increases over the next ten years as well. The above projections and their future revisions will form the basis for future growth forecasts and timely expansion of the IEUA collection and treatment systems.

As indicated in Appendix A, the average rate of EDU growth over the next ten years was projected by the Contracting Agencies at 6458 EDUs per year. This year and through the next few years, growth was projected to decline to a much slower rate, reducing immediate treatment capacity issues. However, after a few years, the growth rate was expected to climb back up to a pace that matches Dr. Husing's build-out dates. According to the IEUA Contracting Agencies' growth forecasts, about a 20 percent increase in total system flow is expected over the course of the next ten years. In round numbers, the Contracting Agencies projected 5000 new EDUs per year in FY2007/08 and FY2008/09, 5600 new EDUs in FY2009/10, and around 7000 EDUs per year for the rest of the ten years. The growth forecast for IEUA's 2008/2009 annual budget is more conservative, assuming slower growth and fewer new EDUs per year, consistent with the slowdown in the economy. The IEUA budget assumes 3500 new EDUs in FY2007/08, 2500 in FY2008/09, 2000 per year in FY2009/10 and FY2010/11, and 2500 EDUs per year for the rest of the ten years.

The flow forecasts in Exhibits I through VIII include projections for two alternate scenarios:

- "High" = Member Agency growth forecasts, with 250 gpd/EDU

- "Low" = Slower growth budgeting assumptions, with 200 gpd/EDU

Based on current information, the Agency expects the "low" scenario to be the most realistic.

For each service area, Table 2-1 (based on the low scenario) compares the anticipated average regional plant influent flows now and in FY2016/17. It shows the baseline raw sewage flows from the service areas as well as the "adjusted" flows. The adjusted flows are the expected actual influent flows including bypass, diversions, and recycle streams. Currently, the total baseline raw sewage flow is 59.8 MGD and the adjusted total influent flow is 64.5 MGD. The difference is due to recycling certain wastewater streams between plants, as explained in the notes at the end of the table.

Table 2-1-- Regional System Flow and Capacity Utilization Summary (MGD)

	FY 2007/2008				FY 2016/2017 Forecast			
Water Recycling Facility	Estimated Raw Service Area Flow	Actual Influent Flow	Capacity	Percent Capacity Utilization	Estimated Raw Service Area Flow	Projected Actual Influent Flow	Capacity	Percent Capacity Utilization
				(Actual)	(Baseline)	(Adjusted)		(Adjusted)
RP-1	31.5	38.3	44.0	87%	33.2	31.1	44.0	71%
RP-4	9.7	4.0	14.0	29%	10.7	13.9	14.0	99%
CCWRF	11.5	9.4	11.4	82%	11.9	10.9	11.4	96%
RP-5	7.1	12.8	15.0	85%	9.2	13.8	18.0*	77%
IEUA Total	59.8	64.5	84.4	76%	65.0	69.7	87.4	78%

*Actual capacity depends on results of RP-5/RP-2 Capacity Improvements Project Pre-Design Evaluation

Table 2-1 Notes/Assumptions:

FY 2007/2008

- IEUA total actual flow includes 2.6 MGD of recycle from RP-2 to RP-5; 1.1 MGD recycle from RP-4 to RP-1; and 1.0 MGD recycle from RP-1 to RP-5
- CCWRF raw service area flow includes 3.6 MGD from the Montclair Interceptor. (another 0.6 MGD from Montclair Interceptor normally goes to RP-1.)

- An estimated 2.1 MGD was bypassed from CCWRF to RP-5.

FY 2016/2017

- Wastewater generation factor for future additional flows is 200 gpd/EDU.
- RP-4 capacity is expanded to 14 MGD.
- IEUA total adjusted flow has +2.6 MGD of RP-2 recycle flow; +1.1 MGD recycle from RP-4 to RP-1; and 1.0 MGD recycle from RP-1 to RP-5
- RP-4 adjusted flow has +3.2 MGD from San Bernardino Pump Station.
- RP-5 adjusted flow has +2.6 recycle from RP-2; +1.0 MGD recycle from RP-1 primary effluent; and +1.0 MGD bypass from CCWRF to RP-5.
- CCWRF adjusted flow has -1 MGD bypass to RP-5.
- RP-1 adjusted flow has -3.2 MGD from San Bernardino Pump Station to RP-4.

In FY2016/17, the forecasted total system flow is almost 70 MGD, including the recycle streams. The overall treatment plant capacity utilization is expected to increase to 78 percent at the end of ten years. This assumes that the RP-5 capacity will be increased by 3 MGD through a combination of: (1) re-rating plant unit processes based on updated design criteria and permit requirements; (2) field stress testing and performance demonstrations; and (3) limited, targeted expansion of certain unit processes using newer, innovative technologies. The RP-5/RP-2 Capacity Improvements Project, which is now in the predesign stage, will more clearly define the realistic target for capacity improvement without a major plant expansion. The Agency has chosen this approach because the flow forecast for RP-5 in Exhibit VIII indicates that a full plant expansion is not needed in the next ten years under the expected growth scenario. However, if higher growth and/or higher wastewater flow rates per EDU were to occur a few years from now, then the Agency would then proceed with design and construction of an expansion.

Table 2-1 indicates that, through continued growth as well as utilization of diversion and bypass capabilities, the influent flow to RP-4 will increase by about 50 percent, resulting in the capacity utilization at RP-4 being higher than at the other facilities. This will be possible because of the completion of the RP-4 capacity expansion to 14 MGD and the San Bernardino Avenue Interceptor and Pump Station. In practice, Agency-wide capacity utilization will be balanced and optimized between facilities to achieve the lowest operational cost while satisfying recycled water demands and water quality requirements. Fully utilizing capacity at RP-4 allows the Agency to satisfy recycled water demands expected in the higher recycled water pressure zones at the least pumping cost. The capacity utilization will be optimized between the other three facilities--CCWRF, RP-1, and RP-5--using the bypass and diversion capabilities discussed in Chapter 1.

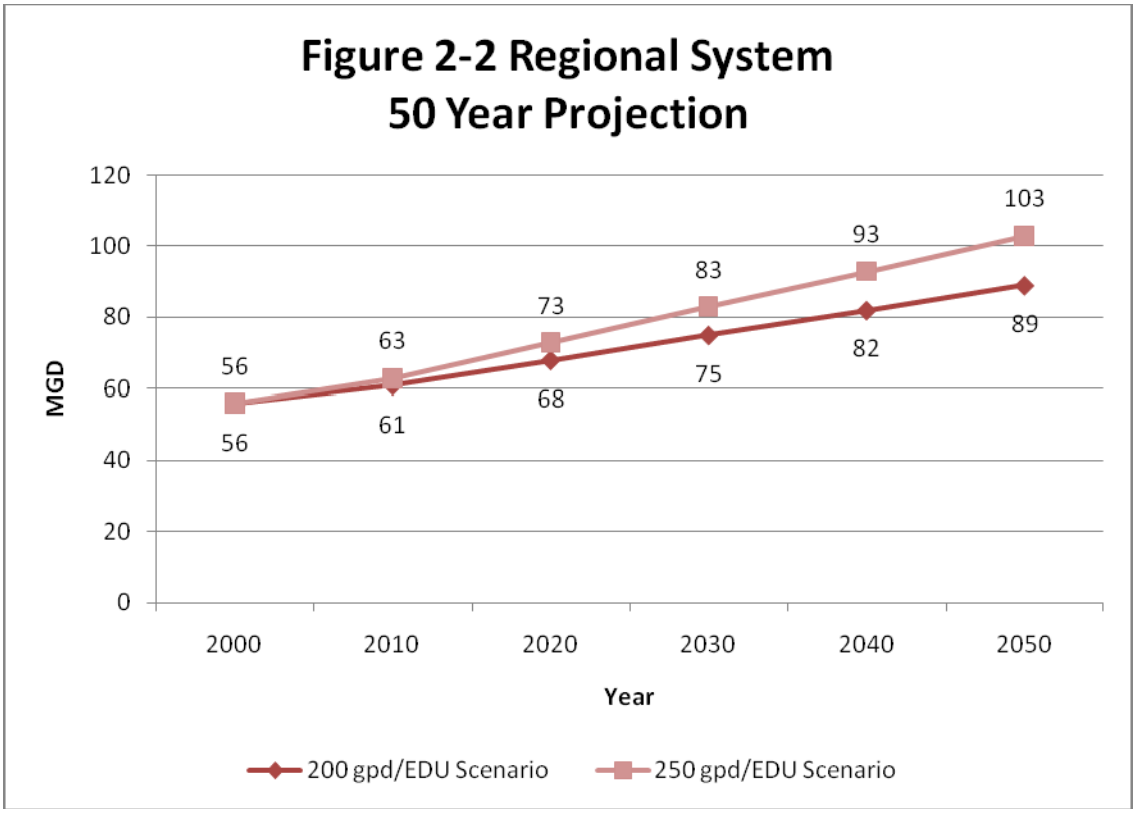
For example, using the Montclair Diversion, approximately 3.6 MGD could be diverted from CCWRF to RP-1. Evaluations performed with the Agency's "Optimo" Flow Balancing and Optimization Model, as well as Unit Production Cost (UPC) tracking, have demonstrated that unit treatment costs at RP-1 ($/MG of water produced) are generally lower than at the other Regional Plants and that it is cost-effective to treat as much water there as possible. However, the lower treatment cost at RP-1 needs to be balanced against the higher energy cost for pumping wastewater from the Montclair Diversion to RP-1. Furthermore, the demand for recycled water in the pressure zones served by CCWRF is quite high in the summer, and the optimization modeling indicated that the demand will be high enough to use all of the recycled water that CCWRF can produce within three years. Therefore, it is likely that capacity utilization at CCWRF will be near 100 percent.

The Agency's flow modeling also indicated that diverting more flow to RP-1 using the Montclair Diversion and Pump Station would not increase the unused capacity at RP-5 significantly because the diurnal peak flows from CCWRF would still need to be bypassed to RP-5. CCWRF relies to some degree on the ability to bypass to RP-5 to guarantee Title 22 redundancy as well as for repair and maintenance shut-downs. Regular bypassing of an average of about 2 MGD was the norm until the CCWRF influent control structure improvements at the end of 2007. Since then, only the diurnal peak flows are bypassed, averaging about 1 MGD. Therefore, for the RP-5 flow forecast, it was assumed that 1 MGD of flow would still be bypassed from CCWRF to RP-5 on average, whether or not the Montclair Diversion flow goes to RP-1.

2.2 Fifty-Year Flow Projection

As indicated in Figure 2-2 ("Regional System 50-Year Flow Projections"), wastewater flows have been projected to reach somewhere between a low of 89 MGD to a high of 103 MGD by the year 2050. These projections were developed considering current, historical and future growth information. The "low" scenario reflects a wastewater flow increase of about 0.7 MGD per year and the "high" scenario reflects 1.0 MGD per year. The current trend falls between the two curves.

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Figure 2-2 Regional System
50 Year Projection
MGD
120
100
80
60
40
20
0
2000
2010
2020
2030
2040
2050
Year
56
63
73
83
93
103
56
61
68
75
82
89
200 gpd/EDU Scenario
250 gpd/EDU Scenario

3.0 REGIONAL PROGRAM CAPITAL IMPROVEMENT PLAN SUMMARY

3.1 Overview

IEUA's Regional Program encompasses the activities associated with construction and replacement of the Agency's wastewater, energy cogeneration, and solids handling facilities. It includes the Regional Sewerage System consisting of the sewage collection trunk lines and pump stations, the wastewater treatment and disposal facilities, the recycled water production facilities, and also the facilities for generating energy from biogas as well as recycling or disposing of biosolids.

The capital improvements planned for the Regional Program are consistent with the recommendations in the Agency's Wastewater Facilities Master Plan (adopted in 2002). A basic requirement of the capital improvement program is to keep pace with the needs for wastewater treatment and solids handling capacity based on future growth projections provided by the Contracting Agencies. The adequacy of the capital improvement program is demonstrated by the projected flow and capacity comparisons for individual regional plants presented in Exhibits I through VIII at the end of this report. The forecasted flow curves are adjusted to take into account the Agency's ability to make planned diversions within the system to optimize the use of existing facilities.

IEUA's Regional Sewerage System has been in an expansion phase over the past 5 to 10 years which culminated with the construction of 7 MGD of new capacity at RP-4 and the completion of the Eastern Trunk Sewer connecting RP-1 and RP-5. These projects have helped to improve the availability and utilization of system capacity and to match recycled water supplies to demands. The completion of the San Bernardino Avenue Pump Station in FY2008/09 will help to further optimize the use of existing system capacity and defer the need for treatment plant expansions.

In general, the focus of this year's Regional Program TYCIP is on projects to:

- Increase energy sustainability;
- Improve the performance of existing facilities;
- Remove plant bottlenecks; and
- Provide needed process redundancy.

Although there are no major expansions of wastewater treatment facilities planned in the next ten years, this year's TYCIP does include projects at CCWRF, RP-5, RP-2 and RP-1 to remove plant bottlenecks and achieve needed treatment process redundancy.

Examples of projects which will improve the utilization of system capacity include:

- The RP-5/RP-2 Capacity Improvements Project is analyzing the options for using innovative treatment techniques to remove plant bottlenecks through limited, targeted expansion of certain unit processes at RP-5. It will also look at the needs for redundant solids treatment units, either at RP-2 or RP-5, to provide reliable biosolids treatment capacity for the future in the southern service area.
- The CCWRF Tertiary Filters and Chlorine Contact Tank Expansion Project will remove plant bottlenecks at CCWRF, improving capacity utilization, providing Title 22 reliability, and reducing bypassing to RP-5.
- At RP-1, the Dewatering Facility Expansion Project can be considered both a replacement and an expansion project. It will replace the old belt presses with more cost-efficient centrifuges and increase capacity at the same time.

3.2 Major Capital Projects

This year's Regional Program Ten-Year Plan recommends $212 million in capital project expenditures for both new construction and replacement projects. The ten largest projects are as follows:

Dollars in millions

1. Capital Upgrades to RP-1, RP-2, CCWRF, RP-4 and RP-5, $39
2. RP-1 Dewatering Facility Expansion, $22.6
3. All Facilities Asset Replacement, $20.7
4. RP-5/RP-2 Capacity Improvements, $18
5. New Operations Laboratory, $13.4
6. RP-1 Facilities Improvements, $12.7
7. RP-1 Asset Replacement, $10
8. All Facilities Plant Equipment Improvements, $9
9. RP-2 Decommissioning $8
10. RP-5 Solids Handling Facility Upgrade & Improvements $6.9

3.2.1 Multi-Facility Projects

Several of the major capital projects in the TYCIP will be taking place at more than one Regional facility. The major multi-facility projects are summarized in Table 3-1.

Table 3-1: Major Capital Projects at Multiple Facilities

Project	Scheduled Completion	Ten-Year Cost (in Million Dollars)
Solar Power Initiative	Fiscal Year 2008/09	1.0*
All Facilities Asset Replacement	F Y2011/12 – FY 2017/18	20.7
All Facilities Capital Upgrades	F Y2011/12 – FY2017/18	39.0
Plant Equipment Improvements	FY2008/09 – FY2016/17	9.0
Gas-Cleaning Systems for RP-1, RP-2 & RP-5	Fiscal Year 2008/09	3.5

*Up-front capital costs will be supplied through Power Purchase Agreements and IERCA cost-sharing

Multi-Facility Energy Projects

The Agency's four regional water recycling facilities, two solids handling facilities, and the Regional Composting Facility have a combined power usage of 11 megawatts. Biogas generated by anaerobic digesters is used for cogeneration of electricity that offsets 28% of this load. The Agency completed construction of the REEP project in April of 2008, essentially doubling the Agency's cogeneration capacity. The REEP project will be fully commissioned in June of 2008. With an installed capacity of 3 megawatts, this facility will provide 75% of the power necessary to operate the RP-5 treatment facility and 100% of the heating and cooling for the Agency's 66,000 square-foot Headquarters buildings. The fuel for this generating facility will be supplied by the RP-5 Solids Handling Facility (SHF), where 600 wet tons per day of dairy manure is digested and methane gas is produced. In addition, waste heat from the engine exhaust is captured to produce another 200 kilowatts of power.

To protect the Agency's cogeneration engines and other equipment, the Agency will be constructing gas cleaning systems at RP-1, RP-2 and RP-5 in FY2008/09. The gas cleaning systems will efficiently remove biogas contaminants such as siloxanes, increasing equipment run times and reducing maintenance costs. Siloxanes form abrasive deposits on combustion parts, which reduce engine performance, impact emission conditions and increase maintenance down-time.

The most significant new energy project in the TYCIP is the solar power project to be completed in FY2008/09. It involves the addition of solar power at RP-1, RP-2, RP-5, CCWRF, and the Inland Empire Regional Composting Facility. Based upon a completed solar power feasibility study, up to 5 megawatts of conventional, flat-plate solar power can be constructed (approximately 1 megawatt at each of the 5 sites). The use of solar power will help offset other, more polluting energy sources, reduce emissions of greenhouse gases, provide a sustainable energy source, and minimize the Agency's costs for purchased electricity. One of the goals of the solar power project is to achieve the best value using a Direct Purchase or Power Purchase Agreement. This TYCIP assumes that the Board will approve a recommendation to enter into a Power Purchase Agreement, which has the advantage that the Agency does not have to provide up-front capital costs, but still has access to sub-market energy pricing. The Agency is proceeding along an aggressive path to install at least 3.5 megawatts of reliable, renewable solar energy by December 31, 2008.

Other Multi-Facility Projects:

IEUA's Asset Management Program provides for timely replacement, repair and maintenance of equipment to ensure its ability to effectively meet performance standards. Funding is allocated for this effort through several projects in the TYCIP. The All Facilities Capital Upgrades Project provides $5 million per year for upgrading capital equipment which will reach the end of its useful life during the

next ten years. In addition, spread over a 6-year period beginning in FY2011/12, the All Facilities Asset Replacement Project provides for capital equipment condition assessments at all of the major regional wastewater treatment facilities. This will include replacing, on a prioritized schedule, equipment which is discovered during the assessments to be outdated and not running properly. Finally, starting in Fiscal Year 2008/09 and spread over 9 years, the Plant Equipment Improvements Project allocates $1 million per year for repair or replacement of critical equipment when an emergency need arises at any of the Regional wastewater facilities. This project addresses emergency needs that are not identifiable through the regular project development process, such as sudden equipment failure that threatens to result in regulatory noncompliance.

3.2.2 RP-1 Service Area

The major RP-1 capital projects are summarized in Table 3-2 below:

Table 3-2: RP-1 Service Area —Major Capital Projects

Project	Scheduled Completion	Ten-Year Cost (in Million Dollars)
RP-1 Dewatering Facility Expansion	FY2008/09—FY2010/11	22.6
RP-1 Facilities Improvements	FY2008/09—FY2011/12	12.7
RP-1 Asset Replacement	FY2008/09--FY2014/15	10.0
RP-1 Tertiary Filter Expansion	FY2010/11--FY2011/12	3.4
RP-1 Aeration Basin Modifications	Fiscal Year 2008/2009	1.4
RP-1 Upgrades	FY2010/11—FY2011/12	2.8
RP-1 Primary Sludge Thickening	Fiscal Year 2011/12	2.1
RP-1 Food Waste Program	Fiscal Year 2010/2011	1.1

In general, the RP-1 projects in the TYCIP involve energy efficiency and modernization of facilities. As discussed above, a one-megawatt solar power production facility will be constructed at RP-1 in FY2008/09. In addition, the RP-1 Food Waste Program will generate additional biogas that will be used to generate electricity. The other RP-1 projects which will involve major expenditures in the next two fiscal years fall under the Asset Management Program. They include: Dewatering Facility Expansion; Aeration Basin Modifications; RP-1 Asset Replacement; and RP-1 Facilities Improvements. These projects all focus on modernizing facilities at RP-1 to ensure that performance standards and regulatory requirements are met. The Dewatering Facilities Expansion Project will expand and upgrade the dewatering facility to meet the facility's current and future capacity needs for more than the next 20 years. The current dewatering equipment and the filter belt presses are at the end of their useful life. Under this project, the presses will be replaced with centrifuges. Comparative studies and analyses performed by Engineering and Operations staff concluded that centrifuges produces cake with less water content, which potentially reduces future hauling costs. The expansion of the facility will also increase the capacity of the dewatered cake storage system. This will allow for more operational flexibility when managing the hauling trucks. The single solids conveyance system will also be replaced and designed to accommodate a multiple conveyance system, which will eliminate future single point failure with conveyors.

The RP-1 Aeration Basin Modifications Project, to be constructed in FY2008/09, will repair, replace, or modify several key components of the aeration basins at RP-1. The project includes replacing corroded and inoperable aluminum slide gates within the aeration basins with stainless steel gates. Also, under this project the depths of the influent and effluent channel for aeration basins and clarifiers will be raised to increase the flow velocities and keep solids in suspension. This will eliminate the need of the existing air agitation blower system, which uses more energy. Also, many of the gate operators and stands are mounted on damaged concrete which will also be repaired. Finally, the membrane panels require replacement every 5 years per the manufacturer's maintenance schedule. With age, these membranes will lose the ability to transfer oxygen to the mixed liquid, which will reduce the microorganism growth and the ability to strip out ammonia. These replacements will keep the panels operating at their maximum efficiency.

The RP-1 Asset Replacement Project will also have a major impact on the aging infrastructure within the RP-1 facility. The project was initiated in July 2006 to implement several of the recommendations of the RP-1 Condition Assessment Study conducted by Metcalf and Eddy in 2005. The study evaluated all of the major equipment and provided a prioritized list of improvements that needs to be completed for the facility over a ten-year time period. Improvements included repairs, rehabilitation or studies to assess the condition of the equipment and devise a proper response as needed. The project was divided between three phases to address the items by priority level. The recommendations will be implemented over six years, starting in FY2009/10, with most of the construction occurring in FY2010/11 and beyond.

The RP-1 Facilities Improvements Project was created to address important process-related issues at RP-1 which have been identified as having a significant adverse impact on plant operations, cost or performance. The project will be completed in FY2008/09 through FY2011/12. One of the systems this project will improve is the dechlorination station, which has been observed to surcharge at high flows. The dechlorination system will be upgraded to accommodate the increased flows from the RP-4 expansion.

The RP-1 Upgrades Project, scheduled for FY2010/11 through FY2011/12, addresses numerous capital items that will improve the maintenance of plant processes and equipment. For example, the list includes items such as improving the mechanisms for scum and foam removal from the aeration basins and secondary clarifiers to avoid foam-related upsets of plant performance. Other items include installing back-up air compressors and improving chemical storage facilities.

3.2.3 RP-4 Service Area

This Ten-Year Plan includes the completion of construction of the San Bernardino Avenue Interceptor, Pump Station and Force Main facilities. The City of Fontana is constructing a new gravity sewer to 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 be completed by IEUA in FY2008/09 which will lift the wastewater to RP-4, where it will be treated. This will increase the amount of recycled water available to users located north of RP-4, where the demand is expected to increase substantially with implementation of the Agency's Three-Year Recycled Water Business Plan. The RP-4 capital projects are summarized in Table 3-3 below:

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

Project	Scheduled Completion	Ten-Year Cost (in Million Dollars)
San Bernardino Ave Pump Station/Force Main	Fiscal Year 2008/2009	3*
* remaining cost will be funded with the City of Fontana's contribution to the joint project		

3.2.4 CCWRF Service Area

The CCWRF capital projects are summarized in Table 3-4 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 allowing more of the peak hourly flows to be treated at CCWRF instead of bypassing to RP-5. This will address 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.

Table 3-4: CCWRF Service Area —Major Capital Projects

Project	Scheduled Completion	Ten-Year Cost (in Million Dollars)
CCWRF Tertiary Filters and Chlorine Contact Tank Expansion	FY2008/09 – FY2011/12	1.6
CCWRF Aeration System Replacement	Fiscal Year 2010/2011	1.0

3.2.5 RP-2/RP-5 Service Area

The RP-2 and RP-5 capital projects are summarized in Table 3-5 below. Solids handling improvements at RP-2 are provided in this Ten-Year Plan to provide additional process redundancy and guarantee reliability. This Ten-Year Plan also includes a project for decommissioning the liquids treatment systems at RP-2 or converting them to another use. Some of the options available include converting the old wastewater treatment tanks into a dairy wash water treatment facility or a storm water treatment facility. Either of these options would help to protect the downstream surface and ground water quality in the Chino Basin and Santa Ana River Basin. If the facilities are simply decommissioned, the equipment will be salvaged, reused elsewhere, or stored as appropriate.

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 biosolids handling facilities at RP-5. The RP-5/RP-2 Capacity Improvements Project, which is described below, will perform an evaluation as to feasibility and timing of transferring the processes for thickening, digestion and dewatering of biosolids to the RP-5 Solid Handling Facility, which now handles only manure.

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

Project	Scheduled Completion	Ten-Year Cost (in Million Dollars)
RP-5/RP-2 Capacity Improvements	Fiscal Year 2015/2016	18.0
New Operations Laboratory	F Y2010/11—FY1011/12	13.4
RP-2 Decommissioning	Fiscal Year 2016/2017	8.0
RP-5 Warehouse/Maintenance Facility	Fiscal Year 2011/2012	2.9
RP-5 System Facilities Upgrades & Improvements	Fiscal Year 2009/2010	6.9
RP-2 & RP-5 IPS Overflow	Fiscal Year 2010/2011	2.0

The RP-5/ RP-2 Capacity Improvements Project will perform a systematic analysis of the capacity of the existing liquids and solids treatment facilities at RP-5 and RP-2 in order to find the optimal condition to upgrade and expand the facilities. The project evaluation, preliminary design, and possibly design phases will be performed in-house by an inter-departmental team to provide the most specific and comprehensive solution for the Agency. The team will evaluate the existing design, determine future capacity needs, perform field tests or stress tests that clearly define the peak capacities of the existing unit processes, and identify opportunities to gain additional capacity through re-rating processes and limited, targeted expansion of some processes. Alternative and innovative technologies will be researched and evaluated. A Steering Committee of Executive Managers, regional agencies and experts will be consulted in all phases. The information will provide the basis of a Wastewater Master Plan Update for the Southern Service Area. The scope of this project includes design and construction of recommended liquid treatment facilities at RP-5 that will gain additional capacity at the least cost.

The current Warehouse located at the RP-1 site is approximately 9,000 square feet and has been in operation since the late 1970s. It houses spare equipment, parts, materials and supplies for all of the Agency's six major facilities and offsite facilities. The current warehouse facility is over its capacity and does not sufficiently meet the Agency's needs. The current Maintenance Facility, which has been in operation since the mid-1980s, is also located at RP-1 and is insufficient to meet all of the Agency's current needs. It is anticipated that the Agency will be requiring additional space for maintenance work

in the near-future due to expansions at the RP-4 and Desalter I facilities, and also for the new RP-5, Regional Composting and Desalter II Facilities.

The RP-5 Warehouse/Maintenance Facility project will solve these problems and allow the Warehouse & Maintenance Facility at RP-1 to handle the Agency's Northern Service Area, while the Warehouse & Maintenance Facility at RP-5 would handle the Agency's Southern Service Area. This project will plan, design and construct a warehouse and maintenance complex at the Regional Water Recycling Plant No. 5 site. A building that will house new warehouse and maintenance areas, approximately 20,000 square feet each in size, will be provided by this project. An additional 5,000 square feet (total of 45,000 square feet) will provide showers, lockers, break areas and conference rooms for staff. The buildings will utilize tilt-up style construction to match the IEUA Headquarters Complex with all necessary office improvements and equipment for staff to operate in a cost-efficient manner (e.g., warehouse inventory equipment, computer infrastructure, etc.). The project will also include all necessary site improvements, including roadways, parking areas, utility infrastructure, landscaping, etc.

4.0 RECYCLED WATER CAPITAL IMPROVEMENT PLAN SUMMARY

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 2005 Regional Recycled Water Program Implementation Plan and the 2007 3-Year Recycled Water Business Plan. The Agency plans to construct a fully integrated regional distribution system that will deliver recycled water to major industrial and municipal users and to groundwater recharge basins.

4.1 Background

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

IEUA also initiated planning of a regional recycled water delivery system. This planning effort culminated with the completion of the IEUA Regional Recycled Water Program Feasibility Study in January 2002. The Feasibility Study identifies facilities to deliver, ultimately, over 70,000 acre-feet of recycled water per year (AFY) to customers and recharge sites throughout the service area. In 2004, IEUA initiated development of the Regional Recycled Water Program Implementation Plan, which updated information from the 2002 report. The Implementation Plan identifies additional future recycled water demand, primarily in the developing areas of Chino and Ontario increasing the total deliveries to approximately 93,000 acre-feet per year. The plan identifies a phased implementation over the next ten years with provision for additional expansion beyond the ten year planning horizon. IEUA adopted the 3-Year Business Plan in December 2007 to accelerate the implementation of the 2005 Regional Recycled Water Implementation Plan. The goal of the 3-Year Business Plan is to increase the total recycled water connected demand to 50,000 AFY by Fiscal Year 2009/2010.

The estimated cost of the facilities planned for the next ten years is $190 million with the majority of those expenditures occurring in the next three years. The program is to be funded by a combination of state and federal grants, State Revolving Fund Financing (SRF), and MWD rebates. The actual schedule of implementation will depend on the availability of grant funding and changing recycled water facility needs. The following are significant events leading up to the Business Plan that was completed in 2007:

- 1972 Regional Contract, IEUA begins delivery of recycled water
- 1993 Recycled Water Master Plan
- 1995 Carbon Canyon Recycled Water System Plan
- 1998 Carbon Canyon Recycled Water System Initial Deliveries
- 2001 Recycled Water Facilities Planning Study
- 2002 Regional Recycled Water Program Feasibility Study
- 2002 Program EIR
- 2003 SWRCB Grant ($5 million) and Loan ($15 million) Approved
- 2003 Initiate Construction of Phase I Facilities
- 2003 MWD LPP Rebate Agreement Amendment
- 2004 RWQCB Basin Plan Amendment
- 2004 DWR Grant ($9 Million)
- 2005 Regional Recycled Water Program Implementation Plan
- 2006 Initiate construction of Phase II Facilities
- 2006 SWRCB Grant ($4 Million) and SRF Funds ($14.7 Million for Phase II)
- 2007 Initiate construction of Phase III facilities
- 2007 SWRCB Grant ($4.9 Million) and SRF Funds ($11 Million for Phase III)
- 2007 Three-Year Business Plan

4.2 Regional Recycled Water Program

The 2002 Feasibility Study and 2005 Implementation Plan included an assessment of the potential recycled water customers within the IEUA service area. Staff worked with the regional agencies to identify over 1,900 potential customers. This information was used to plan the regional and local recycled water distribution pipelines. Pipeline locations were selected to provide recycled water to the largest customers or groups of customers resulting in cost effective facilities. Ultimately, this distribution system layout will serve over 1,200 of the largest customers and supply over 93,000 AFY, which includes 33,800 AFY for recharge.

4.2.1 Three-Year Business Plan

The 3-Year Business Plan (Business Plan) is intended to guide the expansion of the recycled water system for the fiscal years 2007-08 through 2009-10. In response to potential water supply shortages and reductions in MWD imported water supplies, the Business Plan was developed to accelerate implementation of the Regional Recycled Water Implementation Plan (2005). The Business Plan will focus on the most cost effective and rapid ways to increase the amount of recycled water available and used within IEUA's service area. By committing to the Business Plan, the implementation of recycled water projects will be coordinated with all agencies within the Chino Basin area. This will increase the delivery of recycled water quickly to ensure reliable supplies to avoid shortages to residents and customers. IEUA and its member agencies will make every effort to use available recycled water wherever appropriate, as well as make an effort to increase the use of recycled water within the agencies' boundaries. This will allow IEUA and its member agencies to continue to provide a reliable water supply to its customers in the future when shortages of imported supplies could be over a multiple year period as documented in the RAND September 17, 2007 workshop.

The implementation of the Business Plan will result in multiple benefits as summarized below. The program is self-funding through recycled water sales and the MWD local projects program. In addition, the recycled water supply is not impacted by drought and will mitigate the impacts of regional or statewide water supply limitations.

- New Water Supply – 37,000 AFY Increase in Connected Demand (50,000 AFY Total Connected)
- Capital Projects – an average expenditure of $54 million/year for the next three years (Business Plan total cost $190 million, with SRF and Grant funding for approximately $131 million, IEUA Bonds ($35 million), and other sources providing the balance of funding of $24 million.
- Recycled Water Revenues – About $10 million/year (wholesale rate revenue plus MWD rebates)

- Annual expenditures for debt service (approximately $6 million per year) and operation and maintenance costs (approximately $4 million per year) will be funded through recycled water sales, MWD rebate revenues, and other existing IEUA revenue sources.

The Business Plan is intended to be a "short-term" action oriented document that will guide the IEUA recycled capital improvement program through the expansion of its recycled water distribution system. The Business Plan will be updated annually to adjust to the goals, timelines and projects that will expand the use of recycled water. Currently, this document focuses on the 2007-2010 fiscal years. The annual goals for connecting customers to recycled water are summarized in Table 4-1.

Table 4-1

Annual Goals for Connected Demand and Sales

Year		Connected Demand (AFY)	Increase		Estimated Sales*
			AFY	%	AFY
Base Year	2006/07	13,000		----	----
1	2007/08	21,500	8,500	65%	15,000
2	2008/09	35,800	22,800	175%	24,000
3	2009/10	50,000	37,000	285%	35,000

*Estimated Sales lag connected demands due to demands for recharge and other factors.

4.2.2 Red Team

The Red Team, an interagency group, prepared the Business Plan from August 2007 to December 2007. The purpose of the interagency Red Team is to provide a group of people that will be able to lead the projects through the design, construction and permitting phases. The Red Team will consist mainly of IEUA staff, but will also include key staff from member agencies. The purpose behind this is to open avenues of communication to aid with the construction of infrastructure as well as potentially identify new recycled water projects.

4.2.3 Regional Recycled Water Priorities

In September 2000, the IEUA Board and Regional Technical and Policy Committees adopted a recycled water policy document which defines the roles and responsibilities of IEUA and the Regional Contracting Agencies for the construction and ownership of the regional and local facilities. Regional facilities are defined as 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 it will be the responsibility of the respective agency to plan, build, operate and maintain such facilities. Local facilities will primarily be pipelines (local laterals) and may also include some pump stations and reservoirs. With the implementation of the Business Plan, this policy is being updated to include provisions for: regional funding of local storage facilities which reduce regional storage needs; provision for reimbursement of regional facilities constructed by others (local agency or developer); and financing of local facilities and customer on-site retrofits.

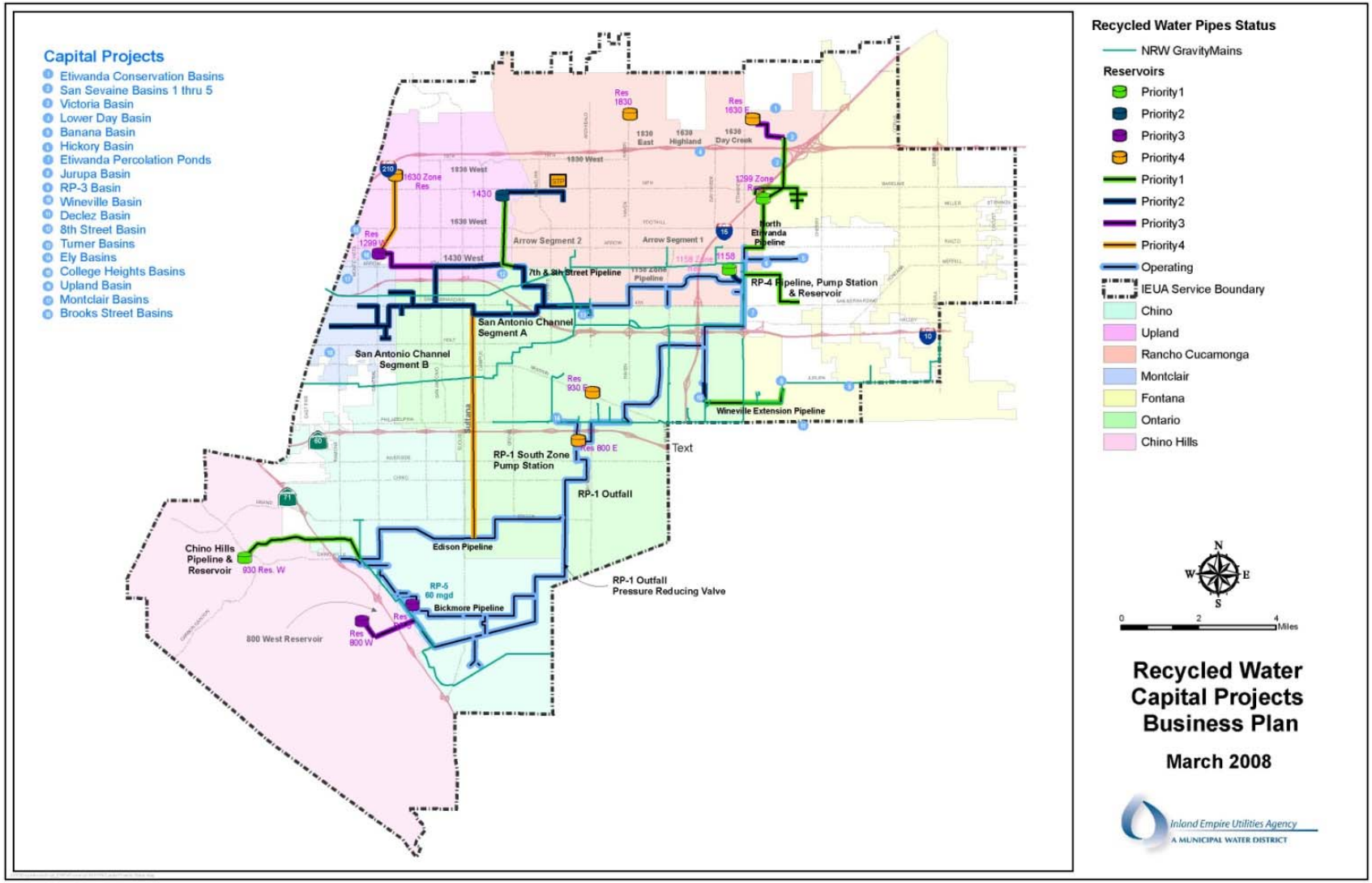
IEUA's regional recycled water system consists of a looped pipeline system which connects all four Regional Water Recycling Plants. The regional facilities have been described in over 50 separate projects of pipelines, pump stations and reservoirs. These projects have been grouped into priorities and categorized into four project areas: Northeast, Northwest, Central and Southern Project Area. The phasing priority was determined based on the amount of recycled water that each phase could serve and the proximity of each phase to one of the plants or existing recycled water supply system. Priorities I and II of the program will deliver recycled water to most of the recharge sites since the recharge sites represent significant recycled water users. The Regional Recycled Water Program Priorities are shown in Figure 4-1.

4.2.4 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 its service area. IEUA staff is working closely with the agencies 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 included in the TYCIP and will be funded via State Revolving Fund Loan proceeds. However, the amount of funding will depend on the Agency's needs. A similar financing approach was used for the construction of the Carbon Canyon Recycled Water Project in the 1990s.

Figure 4-1

IEUA Regional Recycled Water Capital Project Priorities



4.2.5 Regional Recycled Water Program Summary

Completed Activities/Projects:

- Recycled Water Sales — 13,000 AFY (FY2006/07)
- DPH & RWQCB Recharge Permit(Phase I/Phase II) — June 2007
- Edison Avenue Pipeline — February 2007
- 7th & 8th Street Pipeline — September 2007
- Bickmore Pipeline — October 2007
- San Antonio Channel Pipeline-Segment A — October 2007
- TP-1 South Zone Pump Station — November 2007

Current/Near Term Projects Status as of June 2008:

- Recycled Water Connected Demand — 21,500 AFY (FY2007/08)
- San Antonio Channel Pipeline-Segment B — July 2008
- MVWD Laterals — July 2008
- North Etiwanda Avenue Pipeline — June 2008
- RP-4 Reservoir, Pump Station and Pipeline — August 2008
- Northeast Projects, Phase I — June 2009

4.3 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. The total ten-year budget for Recycled Water Capital Improvement Program projects is $190 million; $16.8 million is for completion of projects which are already in construction; $134.3 million is for the construction of the major new facilities included in the Business Plan, including pipelines, pump stations, and reservoirs; $5.5 million is for the construction of local laterals; and $33.5 million is for miscellaneous connections, retrofits, engineering reports, and cross-connection testing. The construction program is phased so that the most cost-effective projects can be brought on-line first. Major new projects in each of the project areas are summarized below in Table 4-1.

Table 4-1: Recycled Water (WC) Capital Improvement Program-Major Projects

Project	**Ten-Year Cost (in Million Dollars)**
Northeast Area Projects	
1299 E Pipeline	$11.1
1299 E Reservoir	$3.6
1630 E. Pump Station	$12
1630 E Segment A Pipeline	$12.3
Baseline Regional Pipeline	$4.2
Monitoring Wells and Lysimeters at Victoria and San Sevaine Basins	$1.5
Northwest Area Projects	
1430 W. Reservoir and 1630 W Pump Station	$13.3
1299 W Reservoir, Pipeline and 1430 W Pump Station	$14.2
Euclid RW Lateral	$2.8
1630 W. Reservoir and Pipeline	$10.5
1430 W. Pipeline	$7.8
Southern/Central Area Projects	
RP-5 RW Pump Station Expansion, Ph. I	$3
800 W. Reservoir and Pipeline	$3
930 W Reservoir and Pipeline	$14.8
930 W. El Prado Pipeline	$6.1
Wineville Extension Recycled Water Pipeline	$7.9
Miscellaneous Connections, Retrofits and Laterals	$39

4.3.1 Funding

In order to accomplish the goals of the 3-Year Business Plan, a financial plan has been developed which includes an evaluation of the cost of the Plan, the funding sources that pay the costs of the Plan, and estimates of annual revenues. Implementation of the Business plan has been programmed and scheduled with the use of state and federal grant funds and, State Revolving Fund low interest loans to minimize use of Regional Capital Fund transfers. The following funding goals have been identified:

a. Capital Budget Funding Sources – funding will be obtained from three sources, State and Federal Grants ($40 million), State Revolving Fund loans ($91 million), 2008 IEUA Bond Funds ($35 million), and MWD/Chino Basin Water Conservation District Public Sector Rebates and Reimbursements for Private/Public Laterals ($25).

b. Annual Revenues – based on 50,000 AFY in sales in the Year 2011, recycled water sales will generate $4.5 million annually, and the MWD LRP Program will generate $6 million annually. And, fixed repayment of local lateral SRF/Bond repayments will be about $1 million per year. At 50,000 AFY the revenues from recycled water sales, MWD LRP program, and other IEUA revenue sources will be sufficient to meet the debt service on loans.

4.3.2 Funding Status

STATE WATER RESOURCES CONTROL BOARD (SWRCB): To date IEUA has received funding contracts from the SWRCB for $5 million in grant funds (SWRCB caps grants at $5 million) and up to $15 million in SRF loans for Phase I. In March 2006 IEUA received funding approval from SWRCB for Phase II projects. IEUA has approval of $4 million in grant funds and up to $14 million in SRF loans for the Phase II projects. In October 2007, IEUA received funding approval from SWRCB for Phase III projects. IEUA has approval of $4.9 million in grant funds from SAWPA and up to $11 million in SRF loans for Phase III projects. IEUA is in the process of submitting a Financial Assistance application for the projects in the Northeast Project Area to SWRCB for $38 Million.

UNITED STATES BUREAU OF RECLAMATION (USBR): IEUA is also working with our congressional representatives to obtain federal grant funds through the U.S. Bureau of Reclamation. In 2005, IEUA received a federal appropriation of $950,000 for the recycled water program and is actively seeking additional appropriations over the next 3-5 years up to $20 million.

DEPARTMENT OF WATER RESOURCES (DWR): In 2003 IEUA and Chino Basin Watermaster submitted an application to the Department of Water Resources for Proposition 50 grant funds for: conjunctive use, recharge improvements and recycled water facilities. A grant award of $15.5 million was received in

2005, including $10.25 million for recycled water facilities. These funds have been used for the Edison Avenue Pipeline and the 7th and 8th Street Pipeline. 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.

4.3.3 Permitting

Several regulatory and environmental permits and approvals are required to implement the Regional Recycled Water Program and deliver recycled water. IEUA has made significant progress and has completed many of the regulatory requirements. The following are the regulatory requirements and the current status of each permit process:

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

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

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

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

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

- DPH Title 22 Engineering Report for Groundwater Recharge - Prior to recharge of recycled water an engineering report is required. The report is reviewed by DPH and a public hearing is required to solicit comments. IEUA prepared and submitted the Title 22 Engineering report for

the seven recharge basins served by the Phase I facilities. A public hearing was held in December 2003 and several supportive letters and comments were provided, and

- RWQCB Permit for Recycled Water Recharge - The Santa Ana Regional Water Quality Control Board approved the permit for recycled water recharge in April 2005. The RWQCB permit for recycled water recharge for the Phase II basins was issued in summer 2007. The DHS public hearing held in April 2006 received strong support and no opposition.

Summary of Permitting Status

- CEQA — Certified 2002
- CBWB Article X — Approved 2002
- SARWQCB Basin Plan Amendment — Approved 2004
- SARWQCB Discharge Permit — Issued for all plants
- DHS customer retrofits — Approved for connected customers
- DHS/RWQCB recharge approval
    - Ely Basin 2,300 AFY — Approved 1998
    - Phase I Recharge 7,700 AFY — April 2005
    - Phase II Recharge 17,300 AFY — June 2007

4.3.4 Customer Development

As described above there are over 1,000 potential recycled water customers which can be served by the regional and local recycled water facilities. The IEUA Board of Directors adopted the Recycled Water 3-Year Business Plan in December 2007 which focuses on expanding the IEUA's recycled water system including regional and local facilities to increase the use of recycled water to over 50,000 AFY which includes 35,000 AFY of direct reuse and 15,000 AFY of recycled water recharge. IEUA is working with the staffs of the local agencies to focus on the list of six month targeted candidate customers. This list will be constantly updated as expansion projects to recycled water system are built and customers are connected. Currently there are many direct use customers, identified in this list, with a total demand of over 9,000 AFY. All public facilities especially the schools and parks are given higher priority at this time. IEUA submitted the first package of MWD's public facilities, whose locations require on-site retrofit, in early 2008. This will provide for the reimbursement of the actual on-site retrofit design and construction costs to all those public facilities. In addition, Chino Basin Water Conservation District (CBWCD) approved $4 million dollar of appropriation for the matching contribution to the MWD's public

sector funding. Fueled by these incentive programs provided by MWD and CBWCD, IEUA and the local member agencies are accelerating the conversion process.

IEUA is also working with the staffs of the local agencies to connect additional farmers in the area. The recycled water usage by farms including CIM/Cal Poly, Chino Airport farming area and other smaller farms in the Cities of Chino and Ontario provide the groundwater replenishment credit from Chino Basin Watermaster to these Cities. The recent cooling trend of new real estate building activities has increased the farming activities in this region. When those farms are converted to the recycled water, the total usage could increase up to 3,500 AFY.

Due to this accelerated recycled water program, the number of engineer's reports has increased resulting in the increased workload for the local Department of Public Health (DPH)'s review. IEUA staff is also working closely with the DPH and the local member agencies to streamline the process and to standardize the submittal package.

In addition, IEUA staff is in the process of completing the list of qualified local landscape contractors to help with the on-site retrofit process.

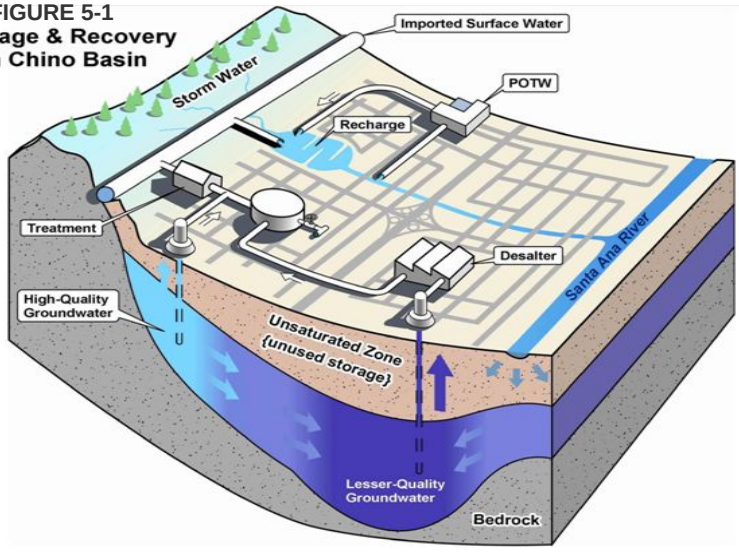
5.0 GROUNDWATER RECHARGE CAPITAL IMPROVEMENT PLAN SUMMARY

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 storm water, recycled water, and imported water. The recharge program is one of the centerpieces of the Chino Basin OBMP. Through the development of increased recharge capacity in the Basin, greater quantities of high quality water can be captured and stored during wet years and be made available during drought and shortages of imported water supply. Figure 5-1 illustrates in general 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 Chino Basin Watermaster, Chino Basin Water Conservation District, San Bernardino County Flood Control District (SBCFCD), and IEUA. Members of these four agencies formed a Groundwater Recharge

FIGURE 5-1
Storage & Recovery in Chino Basin



Coordinating Committee to implement the initial $40-million program entitled the Chino Basin Facilities Improvement Project (CBFIP) that resulted in construction projects to improve the program's recharge facilities. The IEUA serves as the lead agency for implementation (design, construction, operation, and maintenance) of this cooperative program.

The CBFIP will maximize recharge capacity, protect and increase the yield of the Chino Basin, increase the amount of recycled water that can be recharged, and improve groundwater quality. Construction and improvements have been made to 18 recharge basins with a total potential recharge capacity of 100,000 AFY. Construction and improvement of two additional recharge basins are anticipated to increase the total potential recharge capacity to approximately 100,000 AFY in the Chino groundwater basin.

Implementation of the Recharge Master Plan included enhancements to existing flood control and recharge basins through Phase I and Phase II CBFIP and an anticipated 100,000 AFY recharge capacity for the Chino groundwater basin, to be made up of:

- 20,000 AFY of storm water,
- 50,000 AFY of imported water, and
- 25,000 AFY of recycled water from the IEUA's Regional Water Recycling Plants.

The Phase I improvements were completed in the summer of 2005 and recharge operations commenced in the upgraded facilities. Figure 5-2 is a map of the current CBFIP recharge sites. Operational experience in the ensuing 3 years identified lower infiltration rates, system limitations, and recharge capacity than envisioned during the original recharge master plan. Additional recharge capacity and operational flexibility are the goals of Phase II of the CBFIP.

IEUA and Watermaster approved the $10.5 million Phase II improvements in April 2006, made possible by a Department of Water Resources grant and matching funding from IEUA and Chino Basin Watermaster. The Phase II improvements will complete and operational in early 2009 and will enhance the storm water capture, imported water delivery, and operational flexibility of the existing recharge facilities.

IEUA is also working with the State Department of Health Services and the Santa Ana Regional Water Quality Control Board to increase the amount of recycled water that can be blended with storm and imported water for groundwater recharge.

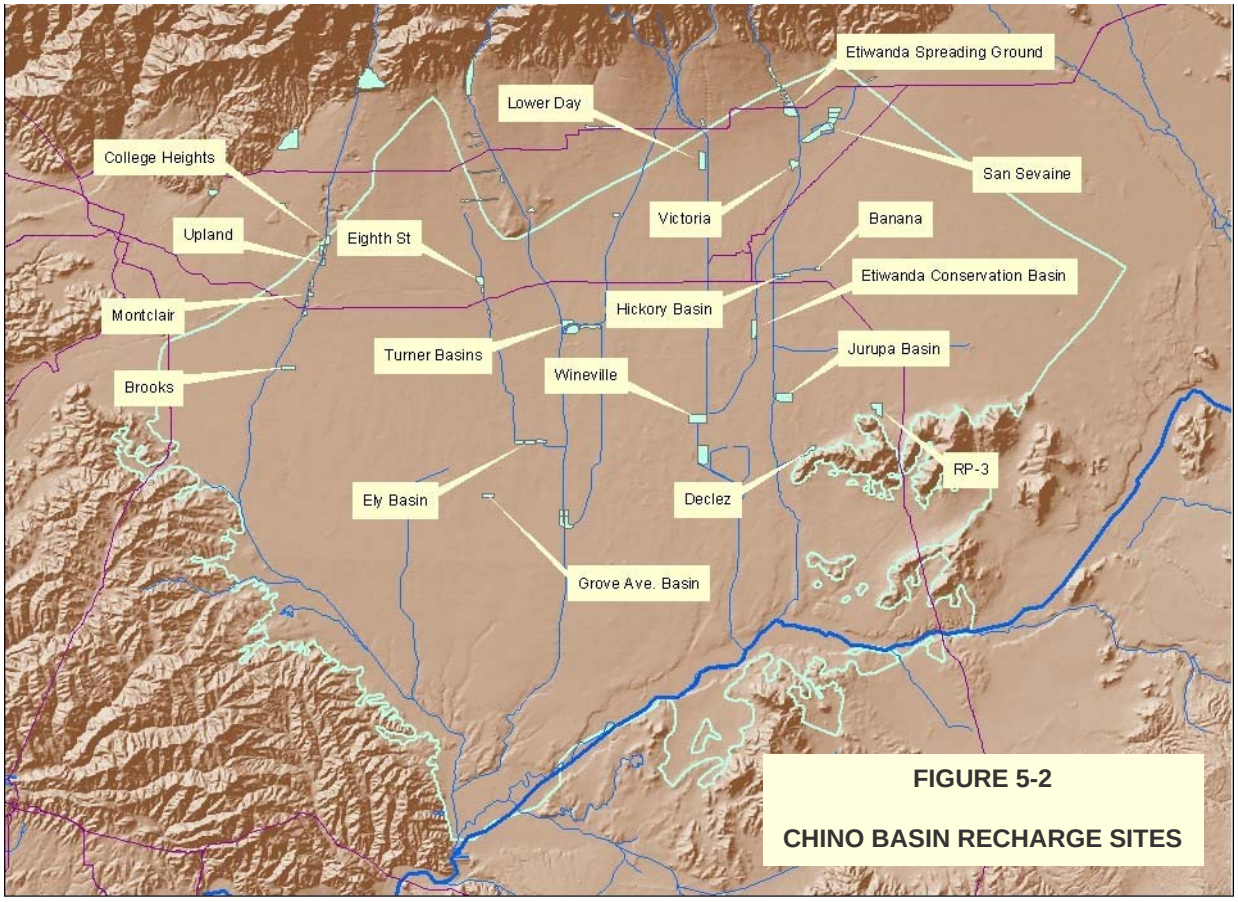


FIGURE 5-2

CHINO BASIN RECHARGE SITES

The original recharge master plan requires update, and will be by July 2010 as part of CBWM's Peace II agreement. When complete, the updated plan will incorporate recharge improvements and new regulatory permit requirements. Until that time, Table 5-1 describes the potential recharge capacities of the recharge sites upon completion of delivery facilities and assuming optimum operation and maintenance.

Table 5-1 Chino Basin Potential Source Water Recharge Capacities (Acre-Feet Per Year)

Basin Name	Potential Basin Recharge Capacity (AFY)			Total Potential Recharge Capacity (AFY)
	Storm Water	Imported Water	Recycled Water	
7th & 8th Street Basins	870	1,160	870	2,900
Banana Basin	870	1,160	870	2,900
Brooks Street Basins	870	1,160	870	2,900
College Heights Basins	2,600	6,070	0	8,670
Declez Basins	1,040	1,390	1,040	3,470
Ely Basins	870	1,160	870	2,900
Etiwanda Cons. Ponds [1]	0	0	0	0
Etiwanda Debris Basin	1,210	1,620	1,210	4,040
Hickory Basin	870	1,160	870	2,900
Jurupa Basin [2]	0	0	0	0
Lower Day Basin	1,560	2,080	1,560	5,200
Montclair Basins	6,940	16,190	0	23,130
RP-3 Basins	1,210	1,620	1,210	4,040
San Sevaine Basins	8,670	11,560	8,670	28,900
Turner Basins	1,040	1,390	1,040	3,470
Upland Basin	3,470	8,090	0	11,560
Victoria Basin	1,040	1,390	1,040	3,470
Subtotal	**33,130**	**57,200**	**20,120**	**110,450**

1. Etiwanda Conservation Ponds are located on Southern California Edison right-of-way, and have yet to be developed due to lack of agreement on lease terms.

2. Jurupa Basin, through geotechnical testing (URS, 2003), is believed to have minimal infiltration benefits. As such, Jurupa Basin is used as a holding basin for water sources pumped to the RP3 Basins or further routing to Declez Basin.

5.2 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 recharge of high-quality recycled water and high-quality imported and storm water sources will allow Chino Basin groundwater quality objectives to

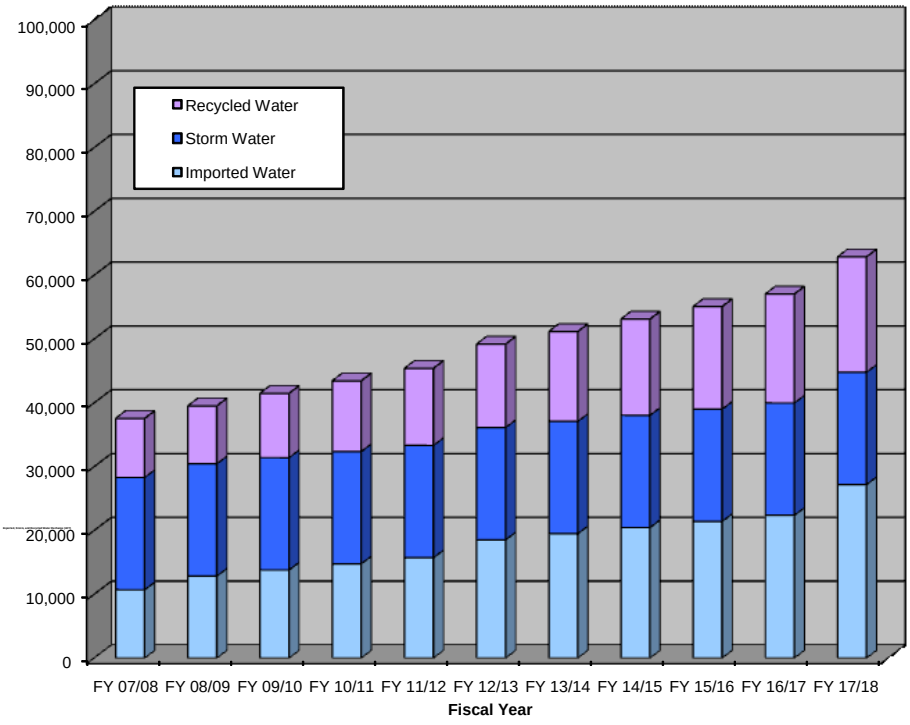
be met. Improvements in groundwater quality through recharge will ultimately lower the cost of the Chino Basin Desalter groundwater treatment process.

In April 2005, IEUA and CBWM obtain their Phase I Recycled Water Groundwater Recharge Permit which included six recharge sites and a 20-percent by basin recycled water recharge limit. In June 2007, IEUA and CBWM obtained their Phase II Recycled Water Groundwater Recharge permit, which added seven more recharge sites and included changes allowing as much as 50 percent by basin recycled water recharge as driven by water quality performance. However, operational experiences since 2005 indicate a more likely average of 33-percent recycled water recharge.

The schedule for increasing the amount of recycled, storm, and imported water recharged into the Chino Groundwater Basin is illustrated in Figure 5-3.

Figure 5-3

Imported, Storm, and Recycled Water Recharge Schedule



ASSUMPTIONS:

Total Recharge is the CBWM Replenishment Obligation projections presented to GRCC on March 27, 2007.

Recycled Water cycled Water is that projected based on historical diluent recharge and recycled water basins use iresulting from the 2008 Three -Year Recycled Water Plan, then increased 1,000 AF per year to reach 33% of total recharge (CBWM replenishment obligation) based on a 5 year running average.

Storm Water is the long -term average of 12,000 AFY of new stormwater capacity plus 5,600 AFY of pre basin improvements capacity.

Imported Water for replenishment is the total CBWM - estimated replenishment minus the sum of the stormwater and recycled water recharge.

5.3 Current Ten-Year Plan

As shown in Table 5-2 and discussed below, the main projects in the Recharge Water (RW) Capital Improvement Program are Basin Improvement Projects. These are in turn composed of several sub-projects. Additional projects are needed to enhance the Groundwater Recharge Program. Funding has been sought and obtained from DWR. A total grant of $5.28 million will provide partial financing of the following project components to expand and enhance existing basins: They include:

1. **Lysimeters and Monitoring Wells:** Lysimeters and monitoring wells for Hickory, Turner, 8th Street, Brook, RP3 and Declez basins for monitoring recycled water quality improvements due to soil-aquifer treatment. Groundwater monitoring wells will also be constructed to track the movement of recycled water down gradient from Brooks and 8th Street basins;
2. **New/Modified MWD Turnouts:** A new MWD turnout on the Rialto Pipeline will be constructed to deliver imported water to basins on West Cucamonga Channel. Modifications to turnouts CB13T and CB14T will expand delivery capacity;
3. **SCADA System Improvements:** Improvements to the SCADA system include adding control features at basins not currently instrumented and improving control features at other basins based on needs identified following initial operations;
4. **Basin Berm Hardening:** Hardening of internal berms will allow storm water to be captured more reliably in basins by the avoidance of berm washouts during larger storm events;
5. **Montclair Dual Inlet Evaluation:** A dual inlet to Montclair basins 2 and 3 will be designed for a future construction project which would allow extended delivery of water to basins during maintenance activities in Montclair basin 1 or 2.; and
6. **Wet Basin Cleaning Evaluation:** Development of wet basin cleaning equipment will be researched. Use of developed equipment will reduce down time for basin dewatering, drying, and traditional silt removal methods.

Table 5-2: Recharge Water Capital Improvement Plan
Major Projects

Project	Scheduled Completion		Ten-Year Cost (in Millions)
Monitoring Wells and Lysimeters *Funded by Recycled Water (WC) Program	Fiscal Year 2008/09	$	1.5 *
SCADA Improvements	F&2011/12-FY2012/13	$	0.135
San Sevaine Channel Repair	Fiscal Year 2008/09	$	0.5
Recharge Enhancement Projects	Fiscal Year 2008/09	$	7.39

5.4 Future Ten-Year Plan

The future capital improvements to the recharge program (Phase III CBFIP) will be evaluated following completion of the update to the Chino Basin Recharge Master Plan, which will be completed by June 2010. In the interim, IEUA staff will evaluate the effectiveness of the constructed Phase II basin improvement projects towards increasing basin recharge capacity. In the time between completion of the Phase II improvements and the updated Master Plan, IEUA groundwater recharge staff will compile a prioritized list of basin improvement projects for incorporation in the updated Master Plan.

6.0 NON-RECLAIMABLE WASTEWATER SYSTEM CAPITAL IMPROVEMENT PLAN SUMMARY

In 2005 IEUA staff, at the request of its Board, developed an Asset Management Program (AMP) to identify and inventory IEUA's major assets, their condition, and plan for capital improvement projects. This chapter discusses ongoing and future projects for the Non-Reclaimable Wastewater System (NRWS) in accordance with this AMP. These projects reflect the IEUA Salinity Management Action Plan of 2002, which calls for maximizing the use of the NRWS and developing a program to reduce the salt impacts from water softeners to IEUA water recycling facilities.

6.1 Background

The IEUA owns and operates the NRWS that provides for export of high-salinity and industrial wastewater generated within IEUA service areas to the Pacific Ocean. The wastewater discharged to the NRWS consists mainly of industrial and groundwater treatment brines. It also includes the belt press filtrate resulted from dewatering of the biosolids generated within the IEUA's water recycling treatment facilities and some domestic waste from non-sewered areas. The NRWS is physically separated from the Regional Domestic Wastewater System and provides a means for segregating poor quality, saline wastewater and exporting it out of the service area. This improves the quality of the recycled water for local use and helps ensuring that IEUA can comply with the final effluent total dissolved solids (TDS) and total nitrogen limits listed in the National Pollutant Discharge Elimination System (NPDES) permits.

For FY 2006/07, the NRWS exports approximately 35,600 tons of salt to the ocean, as summarized below:

FY 2006/2007	MGY	mg/L	Tons/Year
North NRW System	1,502	2,428	15,206
South NRW System	112	4,910	2,293
Desalter 1, (14 MGD)	602	5,245	13,167
Desalter 2, (10 MGD)	413	3,467	5,973
	3,231 Total	**3,861 Average**	**36,639 Total**

The NRWS collection system is comprised of a North and South systems. The North system, which serves approximately 42 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 system, which serves approximately 12 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 IEUA's recycled water and is a key element of the Chino Basin Watermaster's Optimum Basin Management Plan (OBMP). Diverting saline wastewater to the NRWS instead of collecting it in the regional wastewater system has reduced the TDS levels in the recycled water by approximately 392 mg/l. It is estimated that diverting most of the existing industrial users with TDS concentrations above 550 mg/l to the NRWS could lower the TDS level of the recycled water by another 8 to 11 mg/l. In addition, reducing salts from residential water softeners could further reduce the TDS level. Most important, brine from the groundwater desalter facilities should also be diverted to the NRWS in order to avoid raising the TDS level of the recycled water.

6.2 NRWS and Salinity Management Action Plan

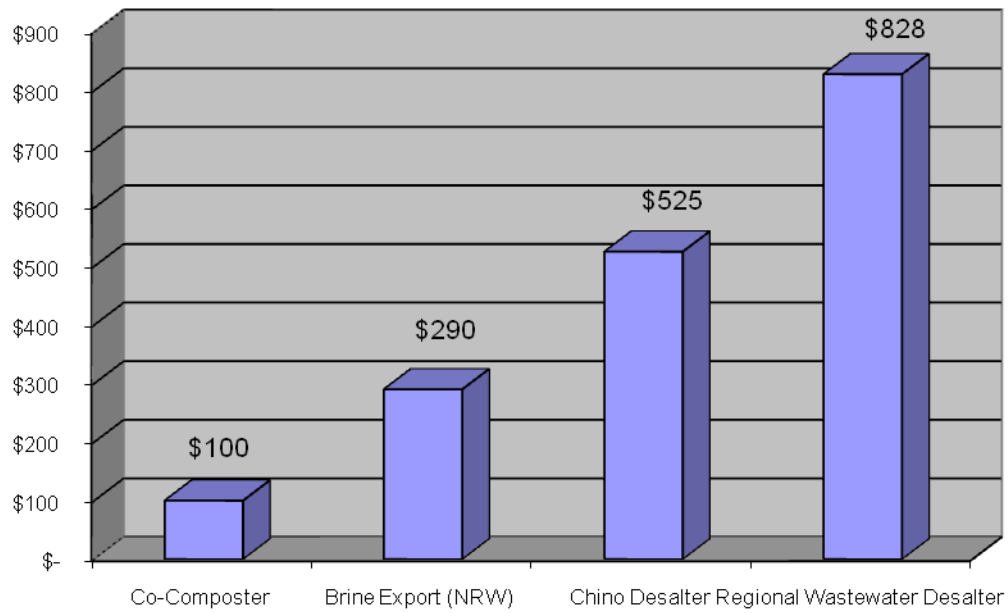
The IEUA developed a Salinity Management Action Plan in 2002 in cooperation with the Regional Technical and Policy Committees. Some of the strategies that were identified to reduce the salinity of recycled water supplies included:

- Maximizing the use of the NRWS,
- Developing a program to reduce the salt impacts of water softeners, and
- Reducing salinity contributions from IEUA water recycling facilities.

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

In 2003, IEUA in partnership with the Regional Technical and Policy Committees, the Chino Basin Watermaster and the Santa Ana Regional Water Quality Control Board, developed a strategies to reduce TDS at the IEUA regional water recycling plants and to encourage salt export through optimum utilization of the NRWS consistent with the OBMP. This is also consistent with the Maximum Benefit Basin Plan, adopted in 2004 by the Santa Ana Regional Water Quality Control Board, which establishes new groundwater TDS and nitrogen water quality objectives. The Plan allows the use of recycled water for groundwater recharge while providing reasonable protection for the groundwater quality in the region. Key commitments in the plan included construction of Chino Desalters, recycled water quality management through industrial waste control, optimum use of the NRWS, reducing the use of water softeners to decrease saline flows into the regional water recycling plants, ion-exchange plants, and groundwater monitoring programs.

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



Implementation of the current Salinity Action Plan is expected to achieve substantial avoided costs and valuable benefits for the region. The Plan consists of the following:

- Water Softener Strategy—Develop a comprehensive program of incentives, public education materials, and model ordinances for new and existing residential and commercial water softeners. In FY 2008/09, the initial phases for a water softener removal program will be implemented for IEUA's service area. ($300,000 has been budgeted for expenditures for rebates and public outreach);

- Buyback Agreement with CSDLAC—IEUA relinquished 3 MGD of owned capacity in the NRW to LACSD in April 2004, which has lowered annual payments to CSDLAC by approximately 23% or approximately $350,000 annually. The savings will be passed on to NRW customers through more favorable rates and charges. Also encourages the use of the NRW system by new and existing industries to discharge their saline effluent and increase the salt export;

- Implementation of the Maximum Benefit Basin Plan—Ensure compliance with the Maximum Benefit requirements and with the Memorandum of Understanding with the Orange County Water District and Regional Board. Critical near-term action items undertaken include: (1) developing monitoring work plan with Watermaster; (2) evaluating regional wastewater pretreatment ordinance technical TDS increment; and (3) preparing 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 the Cities of Upland, Monte Vista Water District, Chino, and Chino Hills and Ontario for several proposed ion exchange projects. The projects have and will continue to improve groundwater basin water quality and yield, especially during dry years;

- Metropolitan Water District of Southern California (MWD) is interested in expanding its current Dry-Year Yield Program from 100,000 acre-feet per year (AFY) to 150,000 AFY. Using similar criteria developed for the current program, this expansion would increase Metropolitan's dry-year yield from 33,000 AFY to 50,000 AFY. Metropolitan has authorized Inland Empire Utilities Agency (IEUA) and its consultants to develop a Program Report that evaluates whether the expansion is possible and if so, what facilities are required and costs incurred to reduce imported deliveries during dry years by as much as 50,000 AFY;

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

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

- Leasing of Temporary SARI Capacity to Lewis Operating Company-IEUA entered into an agreement with Lewis Operating Company (LOC) to lease a portion of the SARI capacity for their Chino Preserve Expansion. IEUA has made this lease available to LOC until City of Chino has completed the design and construction of the Pine Ave. interceptor sewer. In lieu of building the Pine Avenue sewer, the City of Chino is considering building a new sewer lift station on the existing Prado lift station site. Once these permanent sewer facilities are completed, the California Institute for Women will stop discharging to the Pine Avenue Interceptor, which will flow to RP-5 (Status: In Progress);

6.3 Economic Benefits of the NRWS and Salinity Management Action Plan

IEUA expects to achieve substantial avoided costs as well as benefits for the service area by implementation of the NRWS 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 35,000 acre-feet per year of recycled water for groundwater recharge instead of more expensive imported water. IEUA expects to avoid an estimated $430 million in future costs over the next ten years as a result of the full implementation of the NRW Action Plan. These avoided costs are summarized in Table 6-1.

Table 6-1: Costs Avoided by the NRW Action Plan

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 35,000 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 non-sewered areas. These cost savings are expected to offset the cost of "regionalizing" the NRWS.

6.4 Current Ten-Year Plan

The Ten-Year Plan cost for the NRWS is $37.2 million. Several actions are being taken to increase the economic value of the NRWS and to improve or retain the integrity of the NRWS. The major CIP projects for the NRWS are described below and listed in Table 6-2.

Table 6-2: NRW System Capital Improvement Program—Major Projects

Project	Scheduled Completion	Ten-Year Cost (in Million Dollars)
NRW System Refurbishment	Fiscal Year 2014/15	$16.8
CSDLAC Capital Replacement Costs	Each Year	$16.8
NWRS Connections and Emergency Pipeline Repairs	Fiscal Year 2016/17	$2.0
RP-2 SARI Dump Site Relocation	Fiscal Year 2008/09	$0.9
City of Ontario Brine Line	Fiscal Year 2008/09	$0.7

IEUA is obligated to make annual payments to CSDLAC to cover its proportional share of the capital repair, relocation, reconstruction and rehabilitation (4R) costs into CSDLAC sewer system. The relinquishment of 3 MGD of unused NRWS capacity to CSDLAC reduced the ten-year budget to $16.8 million for 4R capital replacement costs, a saving of $5.6 million.

As a part of the Ten-Year CIP, one of the goals of IEUA is to identify and assess the condition, rehabilitation and replacement costs for the NRWS. IEUA retained the services of PBS&J and performed an exhaustive condition assessment of the NRWS pipelines and infrastructure including manholes using Closed Circuit Tele Vision (CCTV) and Global Positioning System (GPS) technology.

This assessment indicated the following: 48 miles of pipeline and 571 manholes of the NRWS were inspected. Overall, the pipelines that were inspected are in good condition, with 21% of the segments requiring no action. Nevertheless, the system is in need of cleaning, as over half of the inspected segments have debris accumulation or deposits in the pipeline and about 9 % of the system could not be inspected due to the excessive debris. Structural defects were found in 17% of the system that will require point repair and replacement over the next two years, and rehabilitation of pipelines over the following eight years by Cast in Place Pipe lining techniques. About 5,100 feet of SARI pipeline, 15,000 feet of North, Central and South Trunks of the Northern NRW system, and 4,500 feet of laterals require rehabilitation. Manholes were in relatively good condition, with 61% not requiring action, 17% needing maintenance, 13% needing repair/rehabilitation and 9% needing re-inspection as they could not be located or were buried. A planning level condition assessment of the Philadelphia Avenue Pump Station found that it is aging and in need of improvements and upgrades. New pumps, instrumentation, controls and improvements to the ferric chloride system were recommended and are also included in the CIP schedule.

The SARI cleaning and condition assessment project was completed during the month of March, 2007 by IEUA staff. This project involved cleaning 3 miles of 27" sewer along the SARI line located within the IEUA service area and 1.5 miles of IEUA owned pipeline. Closed-Circuit Television Inspection (CCTV) was also conducted after cleaning of each section to evaluate the internal structural condition of the pipelines and manholes. Fifteen roll off bins were used to remove approx. 90 tons of material from the line. Material was classified as non-hazardous waste and was disposed at the Chemical Waste Management landfill in Kettleman City, CA. The results of the CCTV inspection were favorable with the pipelines in generally very good condition with no structural problems noted. If resources allow, IEUA staff had completed cleaning of approximately five (5) miles of north NRWS. IEUA staff will perform some of the cleaning, CCTV, and condition assessment as an ongoing program and to meet the recently adopted requirements of the State mandated Wastewater Discharge Requirement's Sanitary Sewer Management Program.

7.0 ORGANICS MANAGEMENT CAPITAL IMPROVEMENT PLAN SUMMARY

The Agency's long-range plans for treating and utilizing biosolids as well as addressing the problems of dealing with manure and wood waste generated within its service area were addressed in the Chino Basin Organics Management Business Plan, dated May 31, 2001 and related Organics Management Strategy Technical Memoranda. The Business Plan was developed to be consistent with the IEUA's mission to protect public health, the groundwater basin, and the environment (e.g., reduces air pollution and improves water quality). 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 a dairy manure digestion facility to generate methane gas and divert salts from the groundwater basin. The facility commenced operation as a pilot project in January 2002 to receive and digest 225 tons per day of manure from the dairies. In 2006, after 4 years of successful operation, the facility was upgraded from a pilot project to a full operational project and the facility manure capacity was increased to 315 tons per day. In 2007 the facility expanded and added two additional digesters increasing capacity to 500 tons per day. The facility was given the name RP-5 Solids Handling Facility.

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. IEUA formalized an agreement with the Los Angeles County Sanitation Districts (LACSD) to implement the joint goal of development of a sustainable biosolids management project. This Joint Powers Agreement outlined the design, construction and operation of a biosolids composting facility, called the Inland Empire Regional Composting Facility (IERCF), which is located adjacent to the IEUA Regional Water Recycling Facility No. 4, located in Rancho Cucamonga, CA. Recycled wood wastes from the local communities are being mixed with biosolids to make high quality compost for local landscaping and horticulture uses. This new composting facility replaces IEUA's Co-Composting Facility which was located in Chino, CA and was closed in 2006.

The IERCF construction was completed and the facility commenced start up in early 2007. The compost facility is designed to process over 200,000 tons per year of recycled wood wastes and biosolids producing over 200,000 cubic yards of high-quality compost. Since startup, the facility has ramped up to over 60% of its design capacity, receiving over 350 tons per day of recycled waste products. Compost, which is created and marketed as SoilPro Premium Compost, has been sold as a soil conditioner which helps improve water retention resulting in better plant growth and water savings. In order to receive recycled products year-round, a compost storage facility is being constructed to allow the facility to store compost during the winter season when compost demand is low.

8.0 TEN-YEAR CIP COSTS AND FINANCING

8.1 Introduction

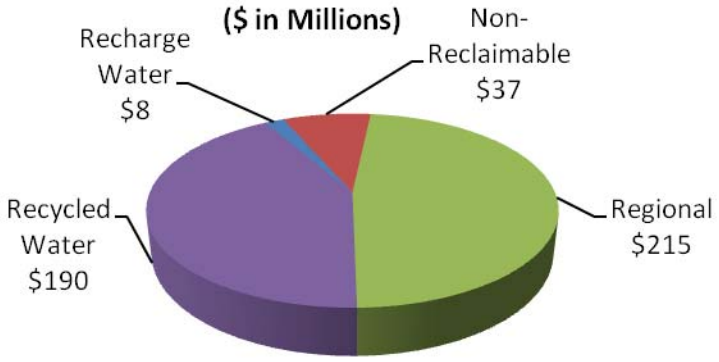
The Agency's budget and Ten-Year Capital Improvement Program are divided into several different program areas:

- Regional Program (RC, RO, and OM Fund)
- Recycled Water Program (WC Fund)
- Recharge Water Program (RW Fund)
- Non-reclaimable Waste System Program (NC Fund)

These funds account for all of the costs and revenues associated with acquisition or construction of facilities and improvements. The operating funds are described in the Agency's adopted Budget (Volume 1).

As shown in Table 8-1, "Wastewater Collection, Treatment, and Disposal Program Ten-Year Cost Summary," by far the largest capital improvement program area is the Regional Program. For each program area, the complete list of projects with schedules and budgetary costs is shown in Appendix B.

FIGURE 8-1
RECOMMENDED TEN-YEAR CAPITAL PROJECT EXPENDITURES
($ in Millions)



8.2 Wastewater Collection, Treatment, and Disposal

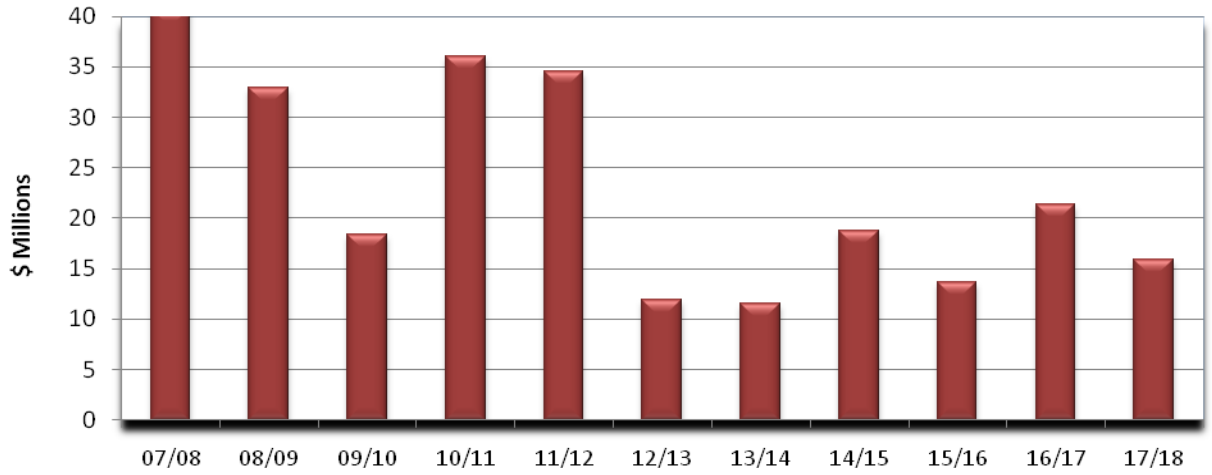
This year's Ten-Year Program recommends $215 million in capital project expenditures for the Regional Program over the next ten years for both new construction and replacement projects. The projected Regional Program expenditures are less than the FY 2007/08 TYCIP by approximately $151 million. In light of the current economic slowdown and anticipated decline in EDU growth, the Agency reviewed the FY2007/08 TYCIP and realigned capital projects to reflect the slower growth forecast for the Agency's service area. As a result, $99 million of capital costs budgeted in current and next two fiscal years were deferred.

Table 8-1, "Wastewater Collection, Treatment, and Disposal Program Ten Year Cost Summary," lists the largest RC projects, in terms of ten-year cost, by service area. The listed RC projects account for 60 percent of the $215 million budgeted for Regional Program projects in the next ten years and the major projects include:

(Dollars in millions)

- Capital Upgrades to RP-1, RP-2, CCWRF, RP-4 and RP-5, $39
- RP-1 Dewatering Facility Expansion, $22.6
- All Facilities Replacement, $20.7
- RP-5/RP-2 Capacity Improvements, $18
- New Operations Laboratory, $13.4
- RP-1 Facilities Improvements, $12.7
- RP-1 Asset Replacement, $10
- RP-1 Plant Equipment Improvements, $9

Figure 8-2
Recommended Wastewater Collection, Treatment, and
Disposal Program Capital Expenditures



8.2.1 Wastewater Collection, Treatment, and Disposal Program Costs

Figure 8-2 above examines how the recommended RC capital project costs are spread over the next ten fiscal years. The current fiscal year cost is also included for reference. The first five years capital costs are averaging at $33 million and tapering down to about half that level in the remaining years. RP-1 projects account for $137 million and RP5 projects account for $57 million over the next ten years-- 84% of the total Regional program. Notably, In FY 2008/09, the Agency will be completing several projects which are already in construction--the RP-5 Renewable Energy Efficiency Project (REEP); the RP-1 Aeration Basin Modifications; the San Bernardino Avenue Sewage Pump Station; the RP-1 Odor Control Phase 1B; the RP-4 Expansion to 14 MGD; and RP-1 Digester Rehabilitation (a sub-project of the RP-1 Facilities Improvements Project). Three other major projects are expected to be constructed in FY2008/09--Gas Cleaning Systems for RP-1, RP-2 & RP-5; RP-1 Digester No. 3 Roof Repair; and the RP-1 Dechlorination Station Upgrade (another sub-project of the RP-1 Facilities Improvements Project). In addition, in FY2008/09 and FY2009/10, some large, multi-year projects will start to have major expenditures -- the RP-5 Solids Handling Facility System Upgrades and Improvements; the RP-1 Dewatering Facility Expansion; and the RP-1 Asset Replacement Project. In FY2010/11 and FY2011/12, the Agency will be building a new Operations Laboratory at RP-5. In the following two years, the focus will be on Capital Upgrades and Equipment Improvements at all facilities.

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

SERVICE AREA	TEN-YEAR COST ($ IN MILLIONS)
RP-1	
• ALL Facilities Capital Upgrade	$39.0
• RP-1 Dewatering Facility Expansion	22.6
• All Facilities Asset Replacement	20.7
• RP-1 Facilities Improvements	12.7
• RP-1 Asset Replacement	10.0
• RP-1 Plant Equipment Improvements	9.0
• Gas Cleaning Systems	3.5
• RP-1 Tertiary Filter Expansion	3.4
• RP-1 Upgrades at Primary, Sludge, & Energy Recovery	2.8
• RP1 Primary Sludge Thickening	2.1
• RP-1 Food Waste Program	1.1
• RP1 Aeration Modification	1.4
Total—Major RP-1 Projects	***$128.3***
Total—All RP-1 Projects	***$137.6***
RP-4	
• San Bernardino Ave Pump Station	$3.0
Total—Major RP-4 Projects	***$3.0***
Total—All RP-4 Projects	***$4.0***
CCWRF	
• CCWRF Tertiary Filter and Chlorine Tank Expansion	$1.6
• CCWRF Aeration System Replacement	1.0
Total—Major CCWRF Projects	***$2.6***
Total—All CCWRF Projects	***$3.1***
RP-2/RP-5	
• RP-5/RP2 Capacity Improvements	$18.0
• New Operations Laboratory	13.4

• RP-2 Decommissioning	8.0
• RP-5 System Facility Upgrade & Improvements	6.9
• RP-5 Maintenance Facility	2.9
• RP-2 & RP-5 IPS Overflow	2.0
• RP5 Renewable Energy Efficiency	1.6
Total—Major RP-2/RP-5 Projects	***$52.8***
Total—All RP-2/RP-5 Projects	***$57.3***
Other Regional System Equipment Purchase & Projects	***$13.1***
Total—Major Wastewater Collection, Treatment, and Disposal Projects	***$186.7***
Total—All Wastewater Collection, Treatment, and Disposal Projects	***$215.1***

8.2.2 Wastewater Collection, Treatment, and Disposal Program Financing

To plan, design, and construct the Regional program capital projects summarized previously in Chapter 3, it is expected to cost approximately $215 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 Regional program is provided by several sources including, but not limited to: property taxes, capital capacity reimbursement payments (connection fees), a combination of long and short term debt, state loans, grants, proceeds from the sale of property, and interest earned.

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

In February 2008, the Agency issued $125.5 million in revenue bond at a premium resulting in net bond proceeds of $126.8 million, $50.1 million of which is earmarked to repay the outstanding commercial debt scheduled to mature in May 2008, $1.3 million in financing costs, leaving a balance of $75.4 million to fund capital improvement and replacement projects in multiple Agency programs.

Within the Regional Program, the key sources of revenue for the TYCIP are property taxes and supplemental capital contributions which are projected at $362 million and $137 million over the next ten years. Supplemental capital contributions come from calls to contracting agencies for Capital Capacity Reimbursement Payments (CCRP), which are derived from connection fees. The expected cash receipts from Reimbursement Payments depend on the number of new EDUs added to the Regional wastewater system each year. The expected number of EDUs is forecasted based on growth projections. Though contracting agencies provided a projection of 4,000 to 7,000 EDU per year over the next ten years, the Agency is projecting conservatively in alignment with the current economic downturn, and is assuming decreasing EDUs from 3,000 to 2,000 per year for the first three years, and gradually ramping up to 2,500 EDU per year from the fifth year and thereafter (see discussion in Chapter 2).

In the past, it has been assumed that the CCRP will be increased at the rate of inflation in construction costs, estimated at an average of 3% to 4% per year. Starting in FY 2006/07, the annual increase in the CCRP is calculated as the ten-year average Engineering News Record (ENR) construction cost index for Los Angeles County (ENRLA). The FY 2008/09 Capital Capacity Reimbursement Payment (Connection Fees) rate is projected at $4,673 per EDU, approximately 5% increased from the prior year rate. To offset the loss in property tax, higher future rate increase including annual ENRLA adjustments may be necessary.

In addition to the property tax and supplemental capital contribution, the Agency will continue to utilize the proceeds from the 2008A bonds of $106 million, commercial papers of $16.5 million, SRF Loans of $41.3 million and the $6.8 million repayment of SRF loans from the City of Fontana on San Bernardino Avenue Pump Station, to support the Regional Program projects and to meet the future growth in the service area for the next ten years.

8.3 Other IEUA Capital Programs

Other IEUA capital improvement programs include the Recycled Water Program (WC Fund), the Recharge Water Program (RW Fund), and the Non-Reclaimable Wastewater System Program (NC Fund), and the Organics Management Program (OM Fund). Exhibits X 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 $190.1 in capital project expenditures for the WC Program over the next ten years. Exhibit XI summarizes the Agency's ten-year budget for the WC Fund. To finance the Recycled Water 3-Year Business Plan and Program, Phases I–V, approximately 70% of the funding is expected to come from State Water Resources Control Board (SWRCB) and Santa Ana Watershed Project Authority (SAWPA) grants and 10% from U.S. Bureau of Reclamation (USBR) grants. The remaining 20% of funding will come from a combination or sources-- retrofit and lateral reimbursements, recycled water sales, and the Metropolitan Water District of Southern California (MWD) rebate programs. Short-term Commercial Paper will be used to fund any cash flow shortfalls due to loan/grant receipt timing issues. Commercial paper is expected to be issued in FY2008/09 only, for approximately $12 million.

8.3.2 Recharge Water Capital Program

As discussed in Chapter 5, this year's TYCIP recommends $7.5 million in capital project expenditures for the RW Program over the next ten years. The Recharge Water Capital Improvement Fund (RW Fund) was created in FY 2002/2003 to track the expenses associated with the implementation of the Recharge Program. The establishment of this new fund in July of 2002 coincides with the Agency's readiness to begin final design of facilities improvements for the Recharge Program. Exhibit XII summarizes the ten-year budget for the RW Fund.

To finance the RW Program, the Chino Basin Regional Financing Authority issued $59 million of variable rate debt obligations in July of 2002. The Chino Basin Watermaster, through the Recharge Facilities Agreement, is obligated to pay one-half of the debt service. The State of California's Proposition 13 Grant Program is providing $20 million of grant funding for the recharge program. Interfund transfers from the RC Fund cover the recharge program's debt service and provide a minimum operating reserve. Cooperating agencies are providing in-kind services. An $11 million basin recharge enhancement project is currently in progress for the construction of a new MWD turnout, SCADA system improvements, and monitoring wells. These additions will be partially funded by a DWR Prop 50 Grant for $5.2 million and the remaining costs will be matched by IEUA (25%) and CBWM (25%). The IEUA portion, which is supported by the RC Fund through interfund transfers, accounts for $1.2 million in FY2008/09.

8.3.3 Non-Reclaimable Wastewater System Capital Program

The NC Fund records financial transactions associated with facilities necessary to operate the northern and southern NRW systems. Exhibit XIII summarizes the Agency's ten-year budget for the NC Fund. This

year's TYCIP recommends $39.4 million in capital project expenditures for the NC Program over the next ten years. The major capital expenditures include $16.8 million for the CSDLAC 4R charges and $22.6 million for the NRWS system refurbishment and condition assessment capital projects discussed in Chapter 6. The major revenue sources for the NC Fund are: (1) monthly user and capacity fees charges to holders of capacity rights in the system; and (2) sale of new capacity rights.

Table 8-2: Other Programs Ten-Year Cost Summary

	TEN-YEAR COST ($ IN MILLIONS)
WATER RECYCLING PROGRAM	
Recycled Water Pipeline Projects	$76.3
Recycled Water Distribution System	113.8
Total - All Water Recycling Projects	**$190.1**
GROUNDWATER RECHARGE PROGRAM	
Recharge Enhancement Project	$7.4
Other Recharge Projects	0.1
Total-All Recharge Projects	**$7.5**
NON-RECLAIMABLE WASTEWATER SYSTEM	
CSDLAC Capital Replacement Costs – 4Rs	$16.8
NRW System Upgrades Project	16.6
Other NRWS Projects	3.8
Total-All NRW System Projects	**$37.2**

8.3.4 Organics Management Capital Programs

The Organics Management (OM) Fund records financial transactions associated with facilities necessary to implement and operate the Organics Management Program and debt service for the 2002A bonds.

IEUA issued $12.9-million in bonds in FY 2002/2003 to finance the Inland Empire Regional Composting Facility (IERCF). Exhibit XII summarizes the Agency's ten-year capital budget for the OM Fund. For the next ten years, the major sources of revenues include the last two installments of sale proceeds ($4.6 million) from the sale of the old IEUA composting site, the reimbursement from CSDLAC for their 50% share of administration and operation costs of IERCF, and fund transfers from the RC Fund at an average of $1.5 million a year for capital contribution and debt service. As capital projects for IERCF are budgeted in the IERCA budget, the OM Fund capital expenditures include primarily the staff labor for the IERCF operations. Since the purpose and function of this fund has become primarily to pass through costs and reimbursements associated with IERCF activities, and the sole funding source comes from RC fund, this fund will be included as part of the Regional Program.

8.4 AB-1600 NEXUS TEST

Each year, IEUA assists its Contracting Agencies to demonstrate compliance with AB1600 (the "Mitigation Fee Act"), which requires that CCRP 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. Funds in the CCRP balance are expected to expend for projects throughout the ten year period, and to provide adequate coverage for cash flow shortages arising from pending state loans. Due to the uncertainty of the current economic outlook, the slower growth forecast for the Agency's service area, and the potential property tax shift resulted from the State budget deficit, the Agency's FY 2008/09 TYCIP projected $151 million of capital projects less than the FY2007/08 TYCIP, which accounts for the build-up in the CCRP balance. The TYCIP program will be revisited each year and the CCRP fund will be utilized to meet the growth and needs of the Agency's service area. Therefore, the CCRP balance is projected to meet the statutory requirements of AB-1600.

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. Funds in the CCRP balance are expected to expend for projects throughout the ten year period, and to provide adequate coverage for cash flow shortages arising from pending state loans. Due to the uncertainty of the current economic outlook, the slower growth forecast for the Agency's service area, and the potential property

tax shift resulted from the State budget deficit, the Agency's FY 2008/09 TYCIP projected $125 million of capital projects less than the FY 2007/08 TYCIP, which accounts for the build up in the CCRP balance. The TYCIP program will be revisited each year and the CCRP fund will be utilized to meet the growth and needs of the Agency's service area. Therefore, the CCRP balance is projected to meet the statutory requirements of AB-1600.

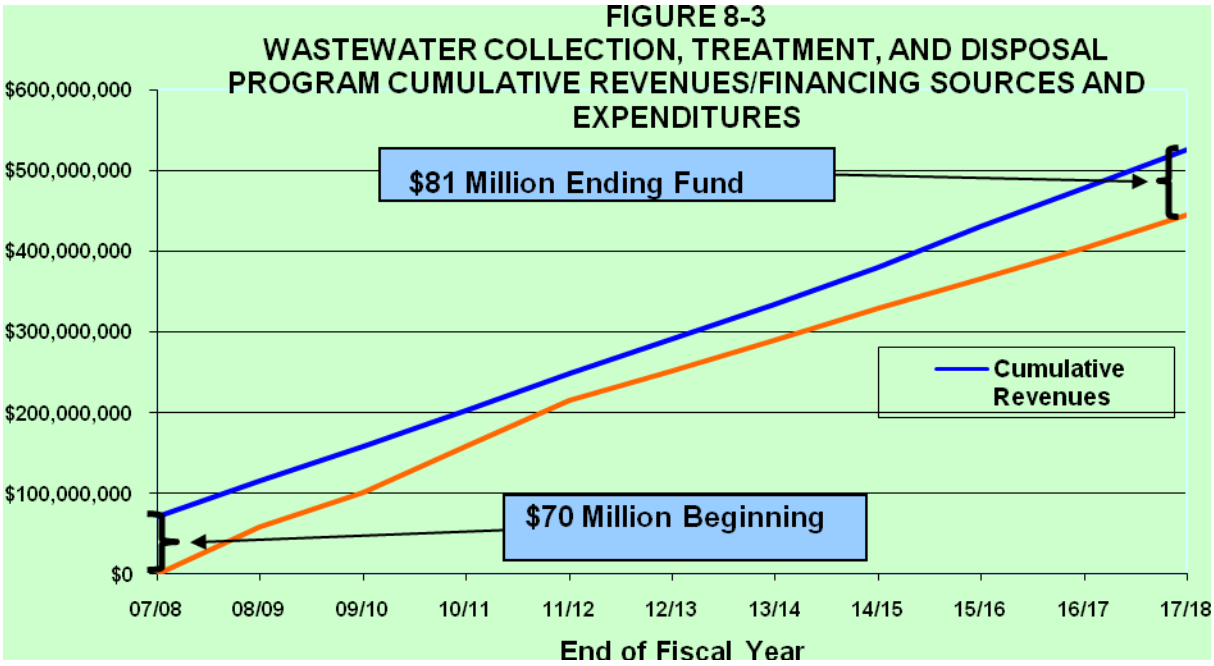
Table 8-3: Projected Status of Reimbursement Payment Receipts (in $1000s)

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*
1994-95	4,906	0	13,013	0
1995-96	6,801	4,600	15,214	0
1996-97	11,185	5,125	21,274	0
1997-98	14,213	24,519	10,968	0
1998-99	13,718	14,637	10,049	0
1999-00	11,094	3,190	17,953	0
2000-01	17,216	22,400	12,769	0
2001-02	20,135	48,010	0	0
2002-03	23,999	0	23,999	0
2003-04	29,726	0	53,725	0
2004-05	26,868	51,200	29,393	0
2005-06	20,800	58,270	8,077	0
2006-07	24,814	20,100	12,791	0
2007-08	15,575	14,676	13,690	0
2008-09	14,019	17,057	10,652	0
2009-10	12,150	17,636	5,166	0
2010-11	10,108	13,115	2,159	0
2011-12	10,512	10,361	2,310	0
2012-13	13,665	13,274	2,701	0
2013-14	14,212	14,058	2,855	0
2014-15	14,780	15,040	2,595	0
2015-16	15,370	15,933	2,032	0
2016-17	15,985	15,187	2,830	0
2017-18	16,625	16,688	2,767	0

8.5 Conclusions

The recommended financing for the Regional Program to fund the Ten-Year Capital Improvement Plan will include short term commercial paper and low interest State loans of approximately $103.2 million. 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 fund balance of $70 million at the beginning of FY 2008/09 with initial costs set to zero, cumulative funding sources are projected to exceed costs during the next ten years, leaving an ending combined fund balance of $81 million.

Capital Capacity Reimbursement Payments are projected to provide $148 million for the capital improvement program over the next ten years. Grants are projected to support $40 million for Recycled Water projects and $4 million for Groundwater Recharge project. State Revolving Fund loans are expected to provide approximately $99 million for Recycled Water projects and $41 million for Regional projects. The other main revenue sources are approximately: $362 million in property tax revenues; $2 million from the Watermaster for the groundwater recharge program; $88 million from NRW System user charges and capacity fees; $31 million from interest on reserves balance; and $4.7 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 comprehensive Master Plan of the regional wastewater facilities. In FY2008/09, IEUA staff will be closely coordinating the ongoing implementation strategy for the Master Plan with the Regional Committees to ensure that key technical issues are addressed.

The 2002 Wastewater Facilities Master Plan (WFMP) recognized the interrelationship of IEUA's recycled water, renewable energy generation, organics management and groundwater recharge programs, 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. IEUA is seeking phased treatment plant expansions to ensure cost-effective capital improvements that will enhance existing capacity to process wastewater and meet the growth needs of the service area.

Growth in the IEUA Service Area

In FY2007/08, IEUA staff has engaged in the following planning activities related to growth forecasts, sewer flows, system modeling and facility evaluation:

- Economic analysis of development and growth forecasts;
- Evaluation of sewer flow factors for land use categories;
- Monitoring and calibration of collection system and plant influent meters;
- Update of sewer system hydraulic model;
- Update of recycled water hydraulic model; and
- Finalization of a Facilities Optimization Model

Also in FY2007/08, staff participated in an effort to identify the potential for "megatrends" to affect the Agency's regional planning efforts. This effort focused on:

- Demographics
- Technology
- Scarcity
- Climate Change
- Geopolitics
- Globalization
- Bimolecular Evolution
-

Over the next year, staff will hold additional workshops to develop general solutions, actions and, ultimately, an integrated strategy to address these megatrends.

The current recession facing California has had significant economic impacts on the Inland Empire region. The housing market has dropped significantly and last year foreclosures were at the highest ever in the San Bernardino and Riverside counties. These directly affect the projected growth in the Chino Basin and therefore reduce the projected water demands.

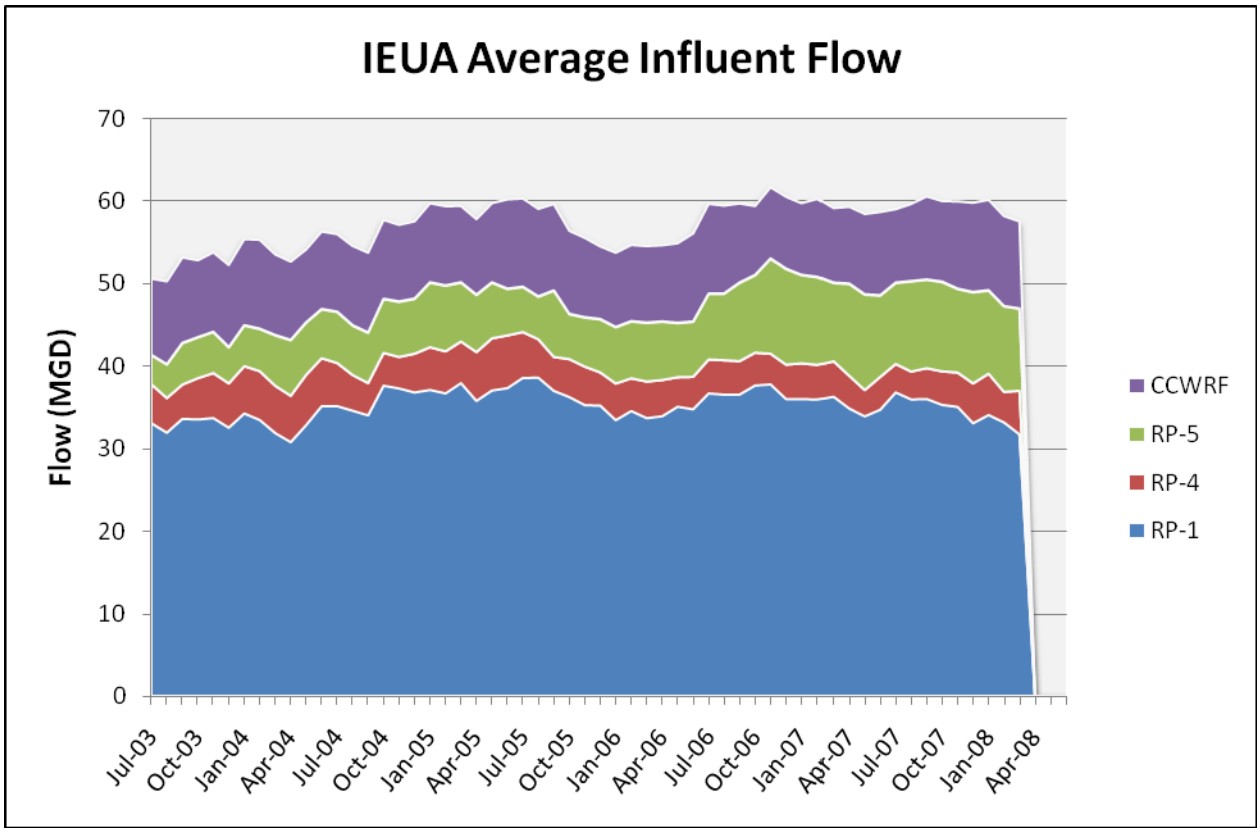
Conservation efforts over the past two years have exceeded expectations. Last year, Southern California experienced a record dry year, which has led to more intensive regional investments in indoor and outdoor conservation. These programs will continue to grow over the next five years in response to recent legal decisions that have reduced imported water supplies available to Southern California by 35%. In addition, on February 28, 2008 Governor Schwarzenegger called for a 20% reduction of daily water use by 2020.

The effectiveness of recent conservation efforts can be seen in regional wastewater flow trends. In the Chino Basin, IEUA has experienced no growth in overall wastewater flows, effectively "flat-lining" the average daily flow (Figure 9- 1). Other Southern California agencies have observed similar trends in wastewater treatment. Los Angeles County and Orange County, which are built-out areas, are actually experiencing declines in wastewater flows.

Wastewater flow factors (estimated sewage flow per building unit or acre for land use types) are used in combination with development forecasts to predict the increased sewage flows into the regional system. IEUA staff has evaluated the sewage flow factors for the various land use types and concluded that the sewage flow factors historically used are higher than actual flows. In particular, the flow factors for two land use categories-- industrial and residential- should be significantly lower when used to plan

the timing of treatment plant expansions. Results from this evaluation have revealed that the flow per EDU ranges from 200 to 250 gpd per equivalent dwelling unit (EDU), with newer developments in the lower end of the range. In comparison, a value of 270 gpd/EDU was used in the 2002 Master Plan. Indoor water-conserving plumbing fixtures and lower population density are likely reasons for the lower flow in newer developments. IEUA staff will continue to monitor sewage flows and collect additional data to further refine wastewater flow factors used for planning. In addition, the reduced sewage flow resulting from indoor water conservation will result in sewage flows with a higher BOD and suspended solids loading. This higher loading will have an impact on treatment plant capacity. This higher loading and its effect on treatment will be evaluated in FY2008/09.

Figure 9-1



Modeling Team

During its evaluations of growth projections in FY2007/08, the need for an agency "Modeling Team" was identified. A team of IEUA staff was put together to initiate a program for the effective use of the Agency's three models:

1. Sewer Model
2. Facilities Balancing and Optimization Model
3. Recycled Water Model

This team is responsible for updating, maintaining and the appropriate use of these models. They are holding monthly meetings with a core user group of IEUA staff members, where relevant questions about IEUA's regional wastewater system, recycled water system, organics management, energy use or budget can be evaluated. These models will serve as tools to help support staff on making key decisions.

In FY2007/08, IEUA's Sewer Model update was completed and calibrated. Since the completion of the update, the model has been used to evaluate several Regional System capacity concerns and questions.

Also, in FY2007/08, the Facilities Optimization Model was completed to develop a comprehensive strategy to optimize the need and timing of wastewater treatment facilities improvements, as well as ongoing operations and maintenance (O&M) activities for the conveyance, treatment, and water recycling facilities.

The goal of the Optimization Model is to provide an evaluation tool that will help the Agency develop a strategy of expanding IEUA facilities that optimizes the three key products from the treatment plants: provide recycled water supplies to customers; produce high-quality biosolids compost products; and produce renewable energy. Ultimately, the Agency would like to manage all assets under an integrated "one plant" concept, with a watershed-based management perspective, including the impact of nonstructural programs on the need and timing of wastewater facility expansions and the maximum use of water recycling supplies for beneficial reuse.

The Optimization Model will address the following major components of IEUA's facilities:

- Wastewater liquids treatment to optimize production of recycled water at plants for delivery to customers and renewable energy/biosolids production;
- Recycled water delivery to customers (e.g., diurnal flow, storage and minimization of pumping costs);
- Renewable energy methane gas generation;
- Power /electrical /natural gas loads; and
- Wastewater solids production and impacts on digesters, dewatering, & composting capacities

The flow monitoring efforts as well as development and calibration of the optimization model have improved the understanding of the collection and treatment system capacities and confirmed that treatment plant capacity limits are typically due to capacity limitations within a few unit processes. Staff has begun evaluating these unit process limitations or "bottlenecks" and is currently identifying options for increasing plant capacity while limiting capital expenses. This evaluation will include operating some unit processes at or above rated capacities to "stress test" the actual process capacity.

Leading Planning Projects

- Monitoring growth, development activity and other community economic activities that impact the Agency's infrastructure and other utility service functions;
- Monitoring impacts of climate change legislation on water and wastewater utilities and aggressively pursuing opportunities for development of renewable energy;
- Preparing plans and program evaluations in coordination with the retail agencies that will guide the Agency's policy development and investment decisions in meeting the future needs of the region, including the Ten-Year Capital Improvement Plan;
- Developing and implementing regional water conservation programs in partnership with the seven retail water agencies served by IEUA as well as other agencies within the Agency's service area, consistent with the Regional Urban Water Management Plan;
- Implementing the Inland Empire Regional Recycled Water Program and Chino Basin Groundwater Recharge Program, in partnership with the Chino Basin Watermaster and the cities and agencies served by IEUA;
- Leading a region-wide planning effort for the Chino Creek Watershed and Prado Basin to develop an integrated strategy for providing reliable water supplies while protecting water quality, achieving energy sustainability, preserving habitat, enhancing flood control, and promoting environmental education.

Finally, on-going evaluations 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** – How should the existing anaerobic digester waste treatment systems be modified and operated 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?
- **Technology** – How can technology be used to further reduce operating costs and land requirements at the IEUA water recycling plants?

Emerging Technologies

As discussed above, key Agency planning goals will be to reduce operating costs at IEUA water recycling plants through cost-effective capital improvements and to ensure environmental compliance. Identifying and implementing actions to improve process performance and expand existing capacity to process wastewater is a constant emphasis of Agency management programs. The Agency is committed to the use of new and innovative technologies as appropriate to expand, repair and replace existing facilities. Several examples are discussed below.

Ceramic Membrane Pilot Study at RP-5 (2007):

In FY2007/08, IEUA hosted a pilot study at RP-5 in which secondary effluent was filtered through a ceramic membrane. This was the first time that a ceramic membrane, typically used in potable water treatment, was used on secondary effluent. The pilot study showed that a ceramic membrane could effectively filter secondary effluent at higher flux rates with less membrane fouling than polymeric membranes. A key aspect of the pilot study was to evaluate the ceramic membrane's potential for reducing TOC, the limiting constituent in groundwater recharge, in the final effluent. Appreciable Total Organic Carbon (TOC) reduction could only be achieved by adding a significant amount of chemical ahead of the membrane.

Membrane Bioreactor (MBR) Pilot Study at RP-5 (2008):

In February 2008, a MBR pilot study began at RP-5. The study will include two MBR systems, one a flat sheet configuration and the other a hollow fiber configuration, treating primary effluent. Some MBR systems have been in operation for several years, but new systems are being introduced as more manufacturers enter the market. The MBR technology has been shown to produce a very high quality recycled water, but at relatively high O&M costs. It appears that improvements in the technology and competition in the MBR market will bring costs down. As recycled water use increases, the MBR technology may become an important treatment alternative for IEUA.

Advanced Photocatalytic Oxidation (PCO):

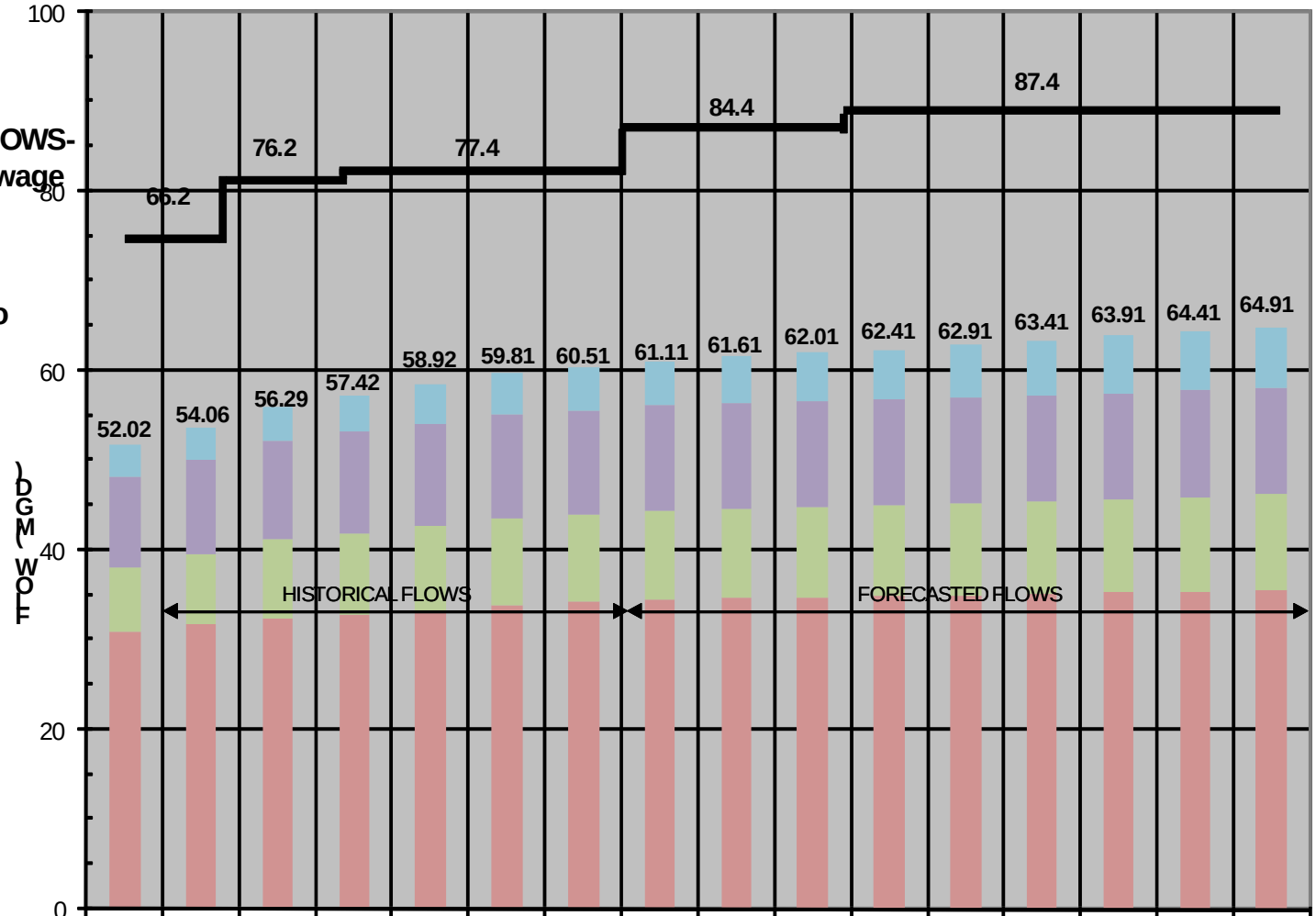
IEUA is in the early stages of evaluating the potential of photocatalytic oxidation for reducing TOC in recycled water, which is important for groundwater recharge. In PCO, a metal oxide suspension (e.g., titanium dioxide) generates very strong oxidants in the presence of water and UV light. Oxidants like hydroxyl radical, ozone, and hydrogen peroxide are capable of breaking organic molecules apart. The metal oxide acts as a catalyst (i.e., it is not consumed), and can be recovered through filtration and reused. This technology is amenable to remote installations like groundwater recharge sites because it requires little operator attention.

Exhibits	TYCIP
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TEN-YEAR CAPITAL IMPROVEMENT PLAN

Exhibit I
TOTAL PLANT FLOWS-
Baseline Raw Sewage Flows

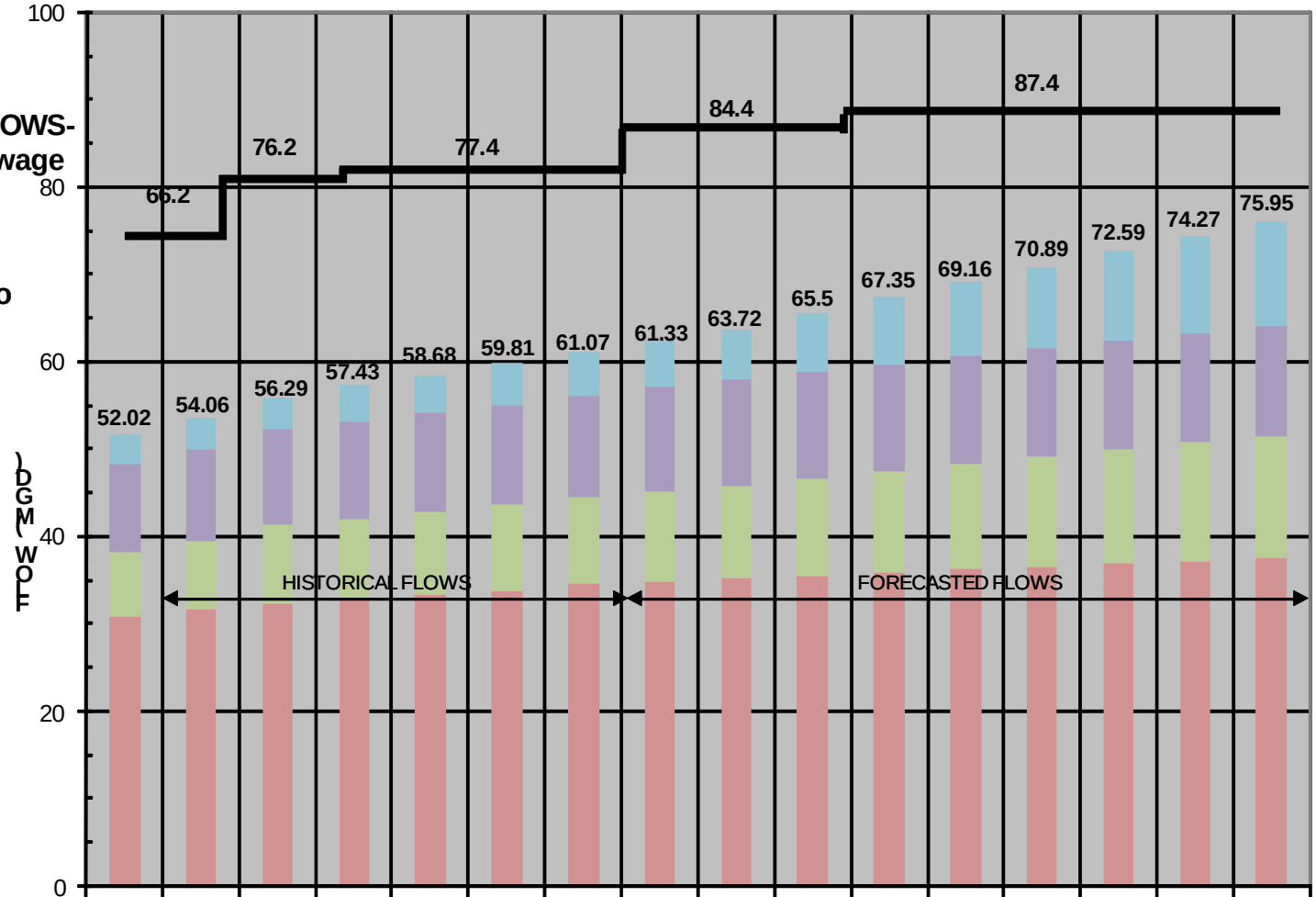
Low Scenario



	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	14/15	15/16	16/17
RP-5 Low Scenario	3.53	3.60	3.72	4.04	4.25	4.71	4.84	5.00	5.18	5.38	5.59	5.84	6.09	6.34	6.59	6.84
CCWRF Low Scenario	10.02	10.50	10.92	11.29	11.41	11.50	11.58	11.68	11.76	11.79	11.81	11.82	11.83	11.84	11.85	11.86
RP-4 Low Scenario	7.29	7.77	8.92	9.04	9.43	9.70	9.82	9.93	10.01	10.06	10.13	10.22	10.33	10.44	10.54	10.65
RP-1 Low Scenario	30.91	31.80	32.38	32.92	33.33	33.90	34.27	34.50	34.66	34.78	34.88	35.02	35.16	35.29	35.43	35.56

Exhibit II
TOTAL PLANT FLOWS-
Baseline Raw Sewage Flows

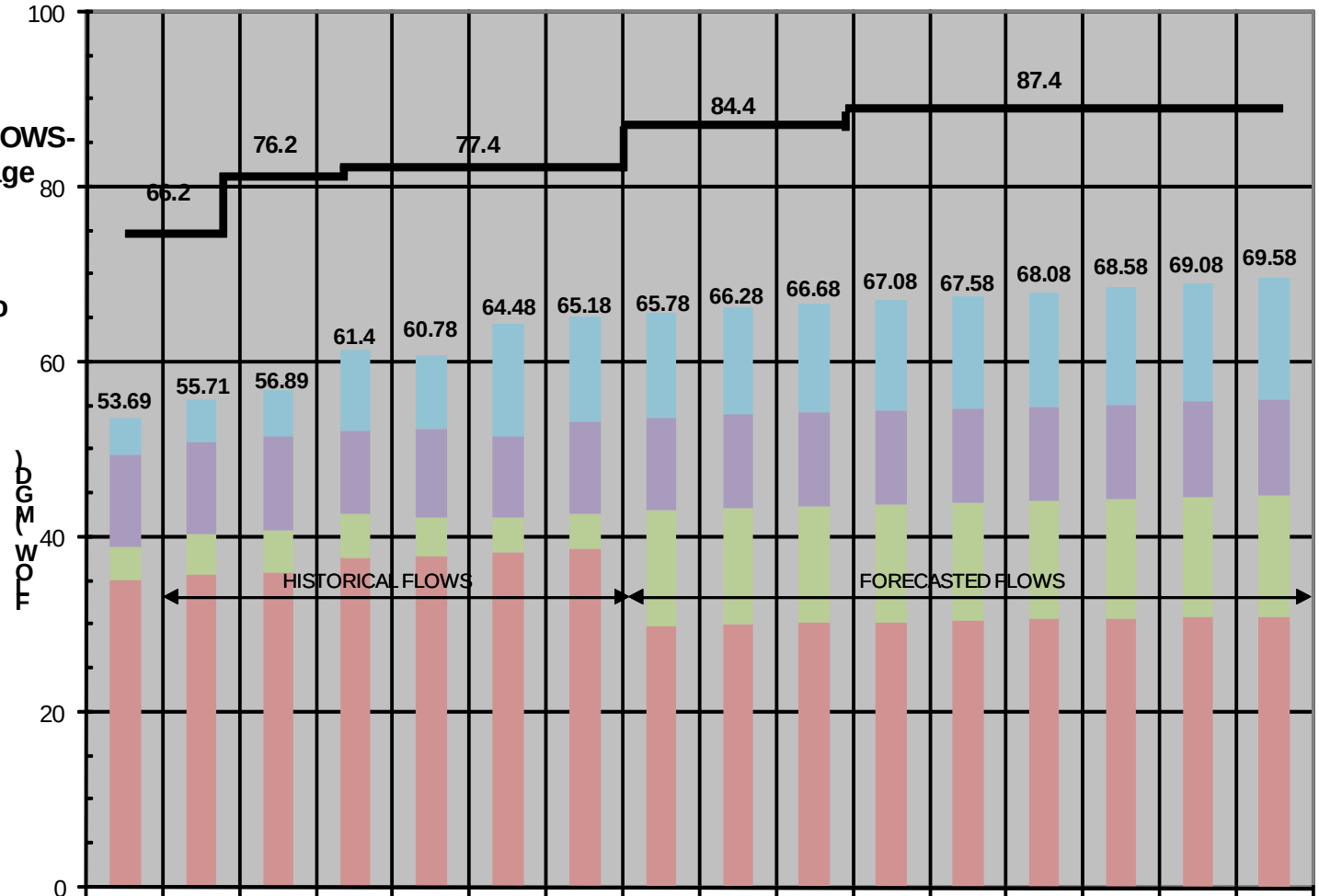
High Scenario



	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	14/15	15/16	16/17
RP-5 High Scenario	3.53	3.60	3.72	4.04	4.25	4.71	4.95	5.27	5.78	6.66	7.62	8.55	9.40	10.25	11.09	11.93
CCWRF High Scenario	10.02	10.50	10.92	11.29	11.41	11.50	11.64	11.86	12.07	12.21	12.31	12.36	12.39	12.42	12.44	12.48
RP-4 High Scenario	7.29	7.77	8.92	9.04	9.43	9.70	9.92	10.28	10.64	11.04	11.49	11.97	12.49	13.01	13.52	14.03
RP-1 High Scenario	30.91	31.80	32.38	32.92	33.33	33.90	34.56	34.92	35.23	35.59	35.93	36.28	36.61	36.91	37.22	37.51

Exhibit III
TOTAL PLANT FLOWS-
Adjusted Sewage Flows

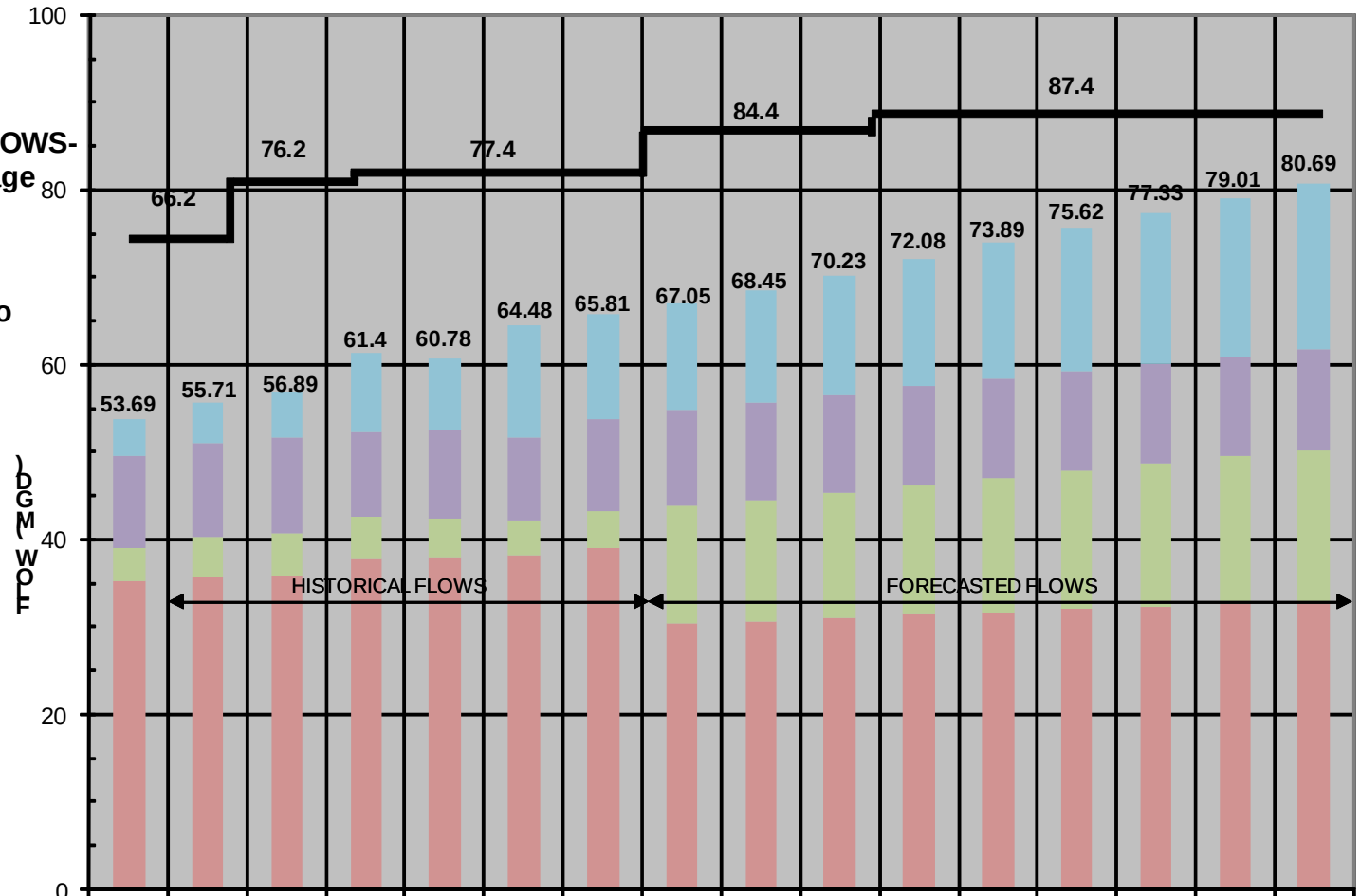
Low Scenario



	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	14/15	15/16	16/17
RP-5 Low Scenario	4.19	4.70	5.27	9.12	8.26	12.81	11.84	12.00	12.18	12.38	12.59	12.84	13.09	13.34	13.59	13.84
CCWRF Low Scenario	10.46	10.66	10.86	9.54	10.17	9.39	10.57	10.67	10.75	10.78	10.80	10.82	10.82	10.83	10.84	10.85
RP-4 Low Scenario	3.84	4.55	4.74	5.01	4.36	4.00	4.12	13.13	13.21	13.26	13.33	13.42	13.53	13.64	13.74	13.85
RP-1 Low Scenario	35.20	35.80	36.01	37.74	38.00	38.28	38.65	29.99	30.15	30.26	30.37	30.50	30.64	30.77	30.91	31.05

Exhibit IV
TOTAL PLANT FLOWS-
Adjusted Sewage Flows

High Scenario



	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	14/15	15/16	16/17
RP-5 High Scenario	4.19	4.70	5.27	9.12	8.26	12.81	11.95	12.27	12.78	13.66	14.62	15.55	16.40	17.25	18.09	18.93
CCWRF High Scenario	10.46	10.66	10.86	9.54	10.17	9.39	10.64	10.85	11.06	11.20	11.30	11.35	11.38	11.41	11.43	11.47
RP-4 High Scenario	3.84	4.55	4.74	5.01	4.36	4.00	4.22	13.48	13.84	14.24	14.69	15.17	15.69	16.21	16.72	17.23
RP-1 High Scenario	35.20	35.80	36.01	37.74	38.00	38.28	39.00	30.46	30.77	31.13	31.47	31.82	32.15	32.45	32.76	33.05

Exhibit V: RP-4 FLOW FORECAST

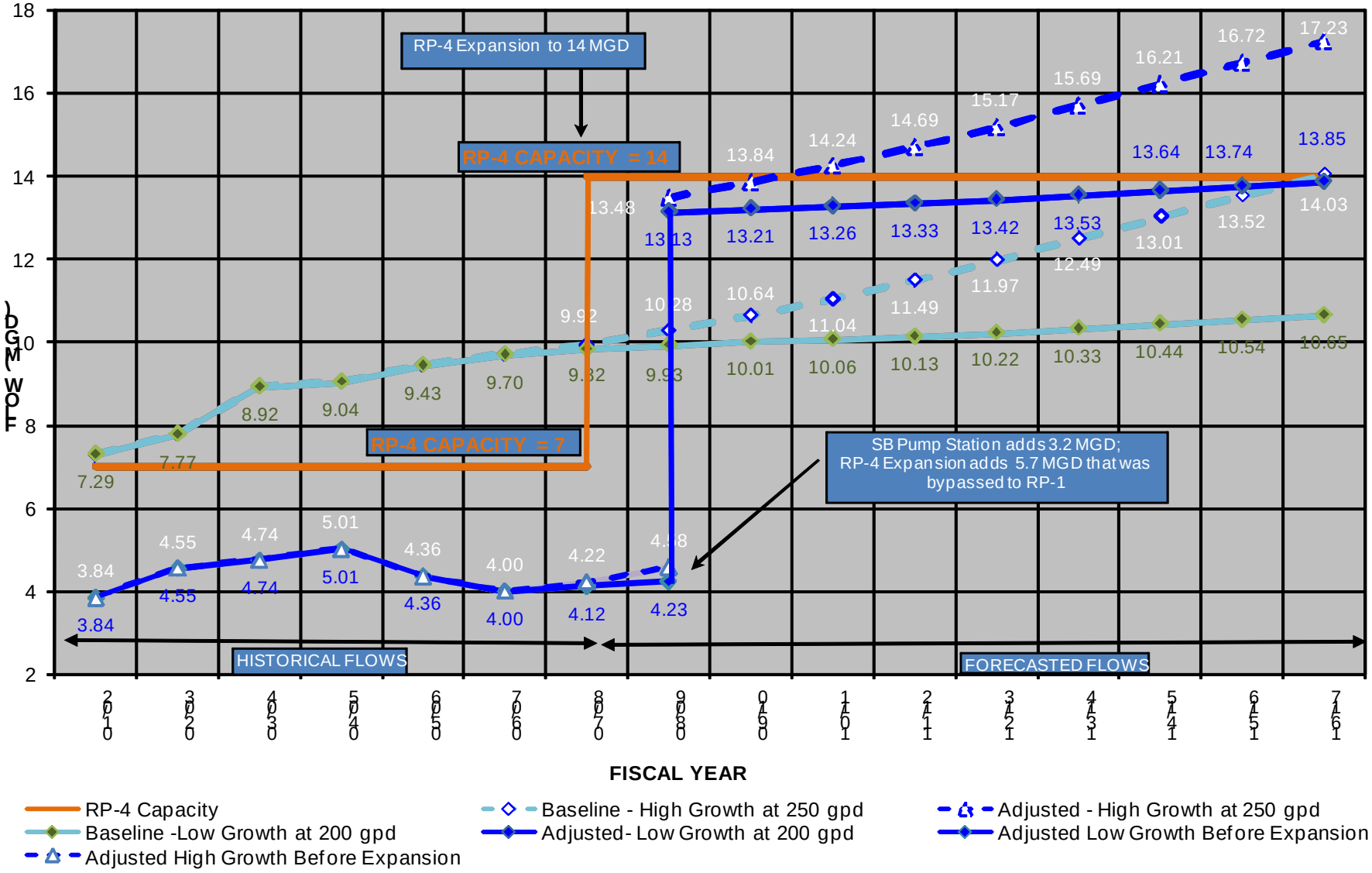


Exhibit VI: RP-1 FLOW FORECAST

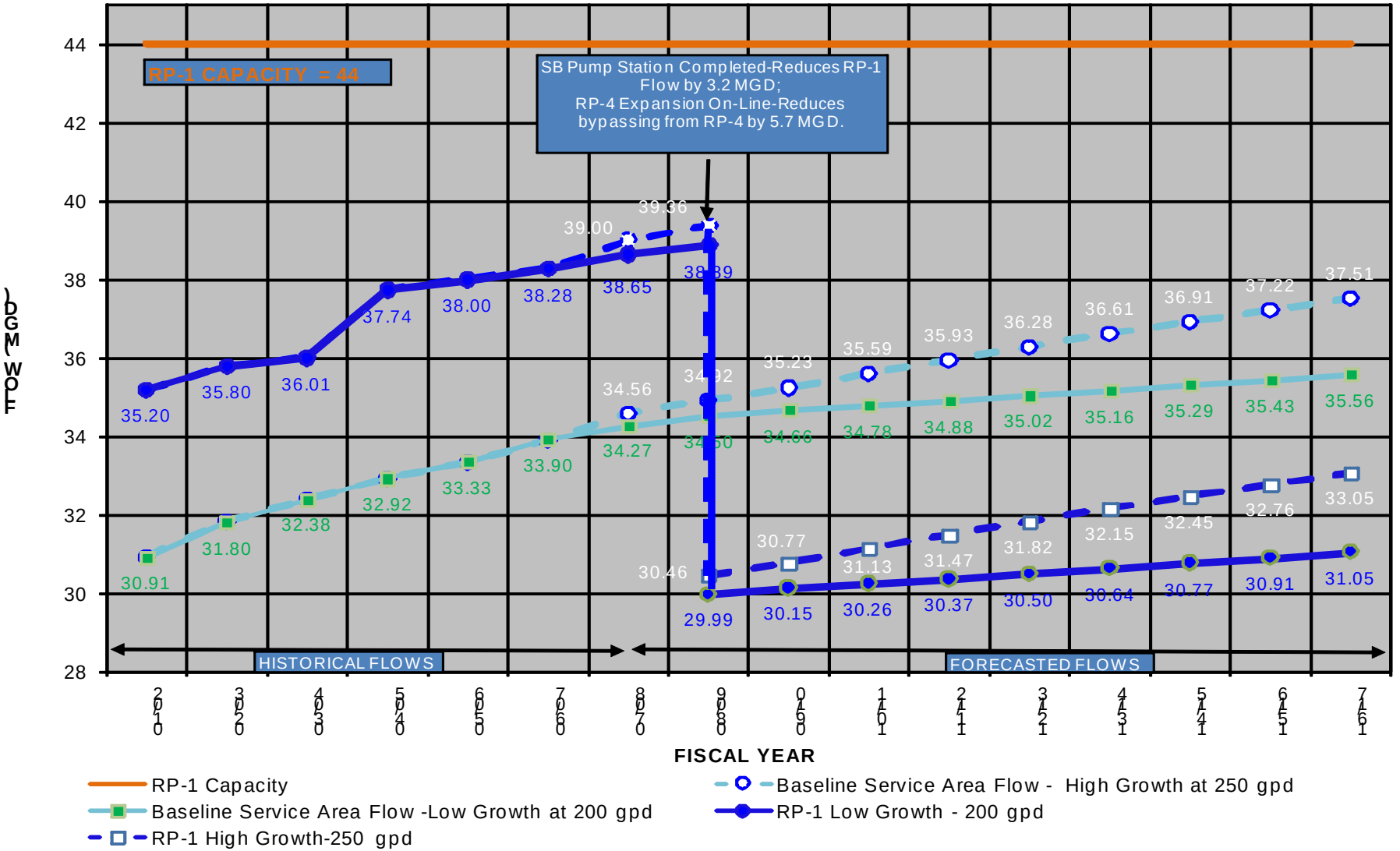


Exhibit VII: CCWRF FLOW FORECAST

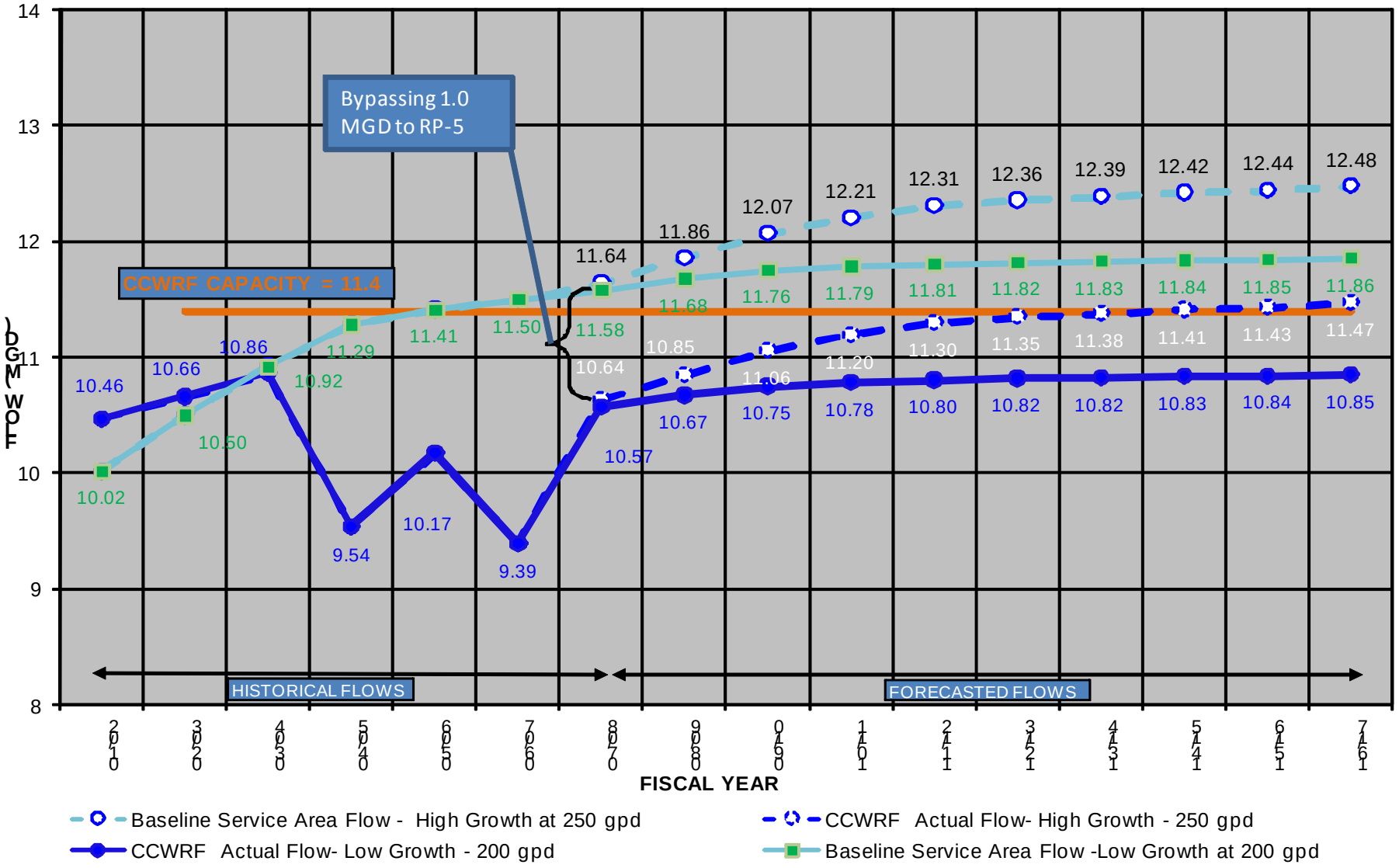


Exhibit VIII: RP-5 FLOW FORECAST

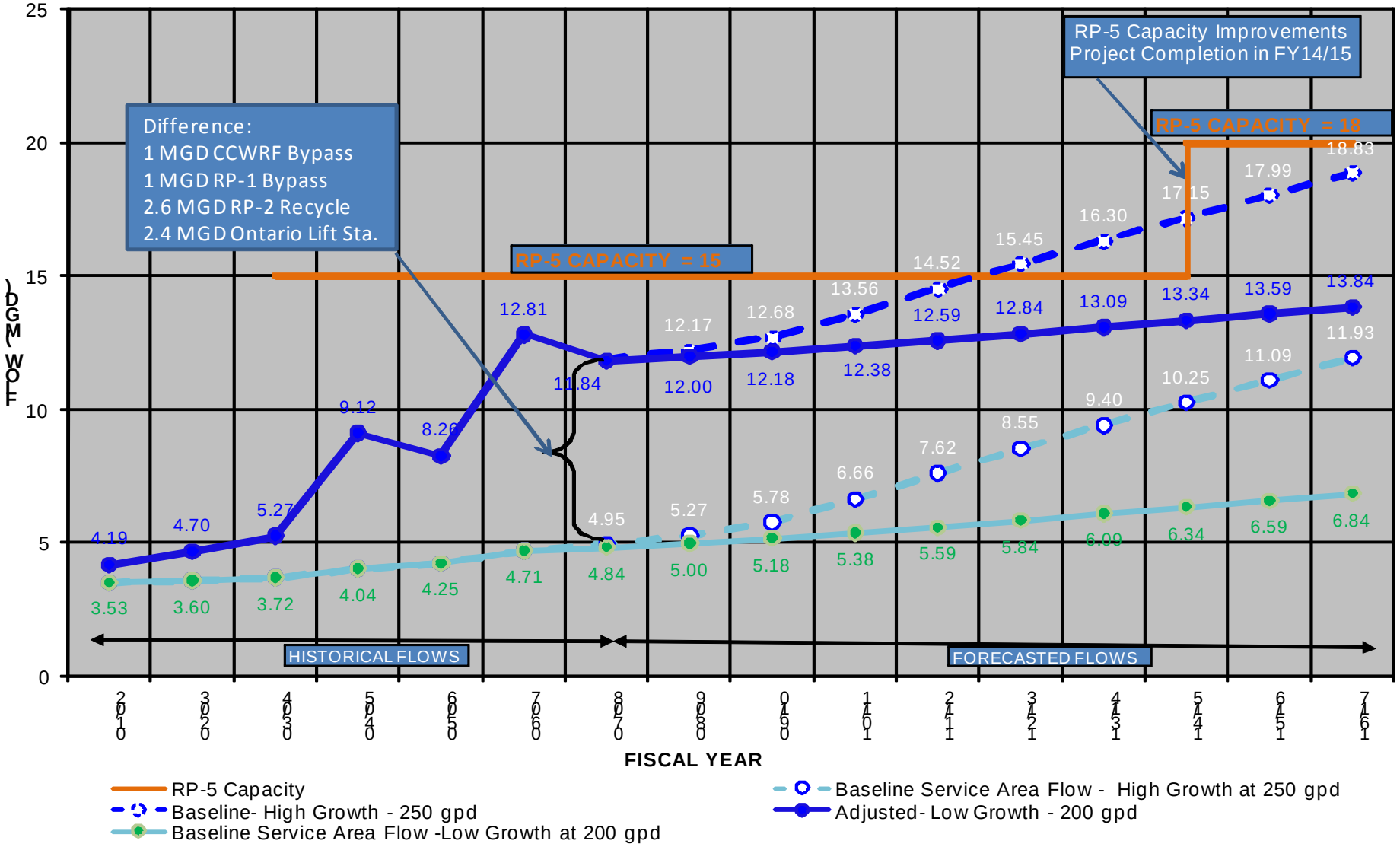


EXHIBIT IX

INLAND EMPIRE UTILITIES AGENCY
Fiscal Year 2008/2009 Budget
SOURCES AND USES OF FUNDS
WASTEWATER PROGRAM - CAPITAL IMPROVEMENT (RC) FUND

Scenario: Rates consistent with Long Range Financial Plan

	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/18	Total 10 Yr.
	PROJECTED ACTUAL	PROPOSED BUDGET	FORECAST									
REVENUE												
Connection Fees	$15,575,000	$14,019,000	$12,150,000	$10,108,000	$10,512,000	$13,665,000	$14,212,500	$14,780,000	$15,370,000	$15,985,000	$16,625,000	$137,426,500
Tax Revenue	21,163,727	22,169,004	22,944,917	23,690,627	24,401,345	25,133,386	25,887,387	26,664,009	27,463,929	28,287,847	29,136,483	255,778,934
Interest Revenue	2,215,194	1,934,892	1,795,236	1,727,784	1,541,902	1,715,066	1,617,195	1,704,379	1,729,352	1,749,374	1,736,844	17,252,024
Contract Work	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	420,000	4,200,000
Lease Revenue	12,000	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUE	39,385,921	38,542,896	37,310,153	35,946,411	36,875,247	40,933,452	42,137,082	43,568,388	44,983,281	46,442,221	47,918,327	414,657,458
OTHER FUNDING SOURCES												
Debt Proceeds- 2008A (incl RC & WC Refi CP portion)	106,483,653	0	0	0	0	0	0	0	0	0	0	$0
SRF Loan Proceeds (Incl City of Fontana)	0	5,052,312	6,409,131	9,048,187	8,318,444	2,377,005	373,500	3,486,000	4,668,750	1,556,250	0	41,289,579
Proceeds from the sale of property	16,181,504	0	0	0	0	0	0	0	0	0	0	0
Grants	1,936,400	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Revenue - Spec Sales/ WC Loan Repay	153,000	155,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	200,000
TOTAL OTHER FUNDING SOURCES	124,754,557	5,207,312	6,414,131	9,053,187	8,323,444	2,382,005	378,500	3,491,000	4,673,750	1,561,250	5,000	41,489,579
TOTAL REVENUES AND OTHER FUNDING SOURCES	**164,140,478**	**43,750,208**	**43,724,284**	**44,999,598**	**45,198,691**	**43,315,457**	**42,515,582**	**47,059,388**	**49,657,031**	**48,003,471**	**47,923,327**	**456,147,037**
EXPENSES												
Administration	4,493,410	5,144,637	5,233,472	5,334,164	5,535,963	5,643,144	7,127,481	5,878,440	5,993,371	6,116,862	6,242,967	$58,250,501
Contract Work/Special Projects	485,626	1,934,723	985,830	954,271	980,649	1,007,819	1,035,803	1,064,627	1,094,316	1,124,895	1,156,393	11,339,326
Monthly NRWS Capacity Fees/4R's	453,617	475,232	422,600	438,582	455,616	473,486	492,235	511,912	532,565	554,247	577,012	4,933,487
TOTAL EXPENSES	**5,432,653**	**7,554,592**	**6,641,902**	**6,727,017**	**6,972,228**	**7,124,449**	**8,655,519**	**7,454,979**	**7,620,252**	**7,796,004**	**7,976,372**	**74,523,314**
CAPITAL OUTLAY												
Work In Progress - RC	36,256,645	26,498,093	16,854,948	31,530,473	29,035,483	6,985,562	8,719,577	10,749,000	6,500,000	9,100,000	9,625,249	$155,598,385
TOTAL CAPITAL OUTLAY	**36,256,645**	**26,498,093**	**16,854,948**	**31,530,473**	**29,035,483**	**6,985,562**	**8,719,577**	**10,749,000**	**6,500,000**	**9,100,000**	**9,625,249**	**155,598,385**
DEBT SERVICE												
Principal Payments - Bonds/Loans	4,634,068	4,753,478	5,460,030	5,719,822	6,836,052	7,148,885	8,030,578	8,358,456	8,710,672	8,987,171	9,903,441	$73,908,585
Principal & Interest Payments - Commercial Paper	50,576,855	0	0	0	0	0	0	0	0	0	0	0
Interest Expense	8,269,054	10,333,916	10,264,324	10,514,395	10,241,372	9,949,170	9,649,506	9,330,827	8,994,460	8,657,705	8,275,232	96,210,907
Financial Expense	1,637,742	345,004	339,603	336,589	333,738	330,266	326,875	323,351	319,932	315,884	311,982	3,283,224
TOTAL DEBT SERVICE	**65,117,719**	**15,432,398**	**16,063,957**	**16,570,806**	**17,411,162**	**17,428,321**	**18,006,959**	**18,012,634**	**18,025,064**	**17,960,760**	**18,490,655**	**173,402,716**
TRANFERS IN (OUT)												
Capital Contribution to GG	(1,483,161)	(1,822,461)	(824,867)	(825,305)	(1,118,400)	(1,118,400)	(1,118,400)	(1,118,400)	(1,118,400)	(1,118,400)	(1,118,400)	($11,301,433)
Capital Contribution to OM	0	0	0	(200,000)	(200,000)	(200,000)	(200,000)	(200,000)	(200,000)	(200,000)	(200,000)	(1,600,000)
Capital/Admin Support, WC	(3,200,000)	0	0	0	0	0	0	0	0	0	0	0
Capital Contributon to RW Fund	(750,000)	(1,197,500)	0	0	0	0	0	0	0	0	0	(1,197,500)
Debt Service, Organics Management	(688,522)	(853,333)	(768,422)	(768,986)	(769,277)	(769,270)	(768,661)	(769,223)	(768,422)	(768,955)	(768,997)	(7,773,546)
Debt Service, Recharge Water	(618,373)	(718,746)	(717,650)	(716,293)	(714,880)	(713,295)	(711,770)	(710,182)	(708,530)	(706,815)	(705,027)	(7,123,188)
Obligation Payment	829,436	(32,007)	46,951	17,348	18,917	20,860	20,800	138,243	135,478	132,769	130,113	629,472
Operating Transfer - OM Fund (IERCF)	(2,500,000)	(3,200,000)	(1,800,000)	0	0	(1,500,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(1,000,000)	(11,500,000)
TOTAL TRANFERS IN (OUT)	**(8,410,620)**	**(7,824,047)**	**(4,063,988)**	**(2,493,236)**	**(2,783,640)**	**(4,280,105)**	**(3,778,031)**	**(3,659,562)**	**(3,659,873)**	**(3,661,400)**	**(3,662,310)**	**(39,866,192)**
FUND BALANCE												
Net Income (Loss)	48,922,841	(13,558,922)	99,489	(12,321,934)	(11,003,822)	7,497,020	3,355,496	7,183,213	13,851,842	9,485,307	8,168,741	12,756,430
Beginning Fund Balance July 01	27,707,368	76,630,209	63,071,287	63,170,776	50,848,842	39,845,020	47,342,040	50,697,536	57,880,749	71,732,591	81,217,898	76,630,209
ENDING FUND BALANCE AT JUNE 30	**$76,630,209**	**$63,071,287**	**$63,170,776**	**$50,848,842**	**$39,845,020**	**$47,342,040**	**$50,697,536**	**$57,880,749**	**$71,732,591**	**$81,217,898**	**$89,386,639**	**$89,386,639**
RESERVE BALANCE SUMMARY												
Capital Assets and Construction	$56,806,242	$46,618,084	$46,191,237	$33,003,834	$21,949,778	$28,868,516	$32,218,508	$39,389,700	$53,306,043	$62,261,746	$70,431,237	
Capital Cash Flow Support	385,174	385,234	385,174	433,846	466,921	466,565	466,394	465,985	465,788	465,497	464,747	
SWRCB Debt Service (SRF Loans)	0	4,012	23,559	0	0	0	0	0	0	0	0	
Debt Service & Redemption	19,438,793	16,063,957	16,570,806	17,411,162	17,428,321	18,006,959	18,012,634	18,025,064	17,960,760	18,490,655	18,490,655	
ENDING RESERVE BALANCE AT JUNE 30	**$76,630,209**	**$63,071,287**	**$63,170,776**	**$50,848,842**	**$39,845,020**	**$47,342,040**	**50,697,536**	**57,880,749**	**71,732,591**	**81,217,898**	**89,386,639**	

EXHIBIT X

INLAND EMPIRE UTILITIES AGENCY
FISCAL YEAR 2008/2009 BUDGET
SOURCES AND USES OF FUNDS

RECYCLED WATER (WC) FUND

	2007/2008 Projected Actual	2008/2009 Proposed Budget	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total 10 Yr.
					Forecast							
REVENUE												
Recycled Water Sales	$1,111,018	$1,609,893	$2,967,768	$4,974,325	$6,159,375	$8,320,000	$9,004,500	$9,733,010	$10,508,145	$11,332,667	$12,209,492	$76,819,175
MWD LPP/LRP Program	2,082,850	3,163,250	5,322,800	7,892,750	7,204,000	8,479,000	8,879,000	9,279,000	9,679,000	10,079,000	10,479,000	80,456,800
Contract Work	0	0	0	0	0	0	0	0	0	0	0	0
Interest Revenue	240,317	264,855	502,028	687,990	689,142	856,462	870,337	896,508	901,645	945,356	1,044,621	7,658,944
Other	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUE	**$3,434,184**	**$5,037,998**	**$8,792,596**	**$13,555,065**	**$14,052,517**	**$17,655,462**	**$18,753,837**	**$19,908,518**	**$21,088,790**	**$22,357,023**	**$23,733,113**	**$164,934,919**
OTHER FUNDING SOURCES												
SRF Loan Proceeds	$6,125,430	$26,297,895	$28,029,627	$28,445,200	$14,762,803	$1,420,943	$0	$0	$0	$0	$0	$98,956,468
Bond/Comm. Paper Proceeds	9,931,870	15,000,000	52,387,500	0	0	0	0	0	0	0	0	67,387,500
Grants	6,858,595	13,900,000	10,000,000	10,000,000	6,020,000	0	0	0	0	0	0	39,920,000
MWD/CBWCD Public Retrofit/Lateral Reimb.	6,622	116,304	936,286	3,259,386	3,762,805	2,812,551	2,963,463	2,774,823	2,548,455	2,548,455	2,548,455	24,270,983
TOTAL OTHER FUNDING SOURCES	**$22,922,517**	**$55,314,199**	**$91,353,413**	**$41,704,585**	**$24,545,608**	**$4,233,494**	**$2,963,463**	**$2,774,823**	**$2,548,455**	**$2,548,455**	**$2,548,455**	**$230,534,950**
EXPENSES												
Operations	$2,324,545	$4,058,155	$4,491,705	$5,002,315	$5,202,034	$5,362,734	$5,528,919	$5,667,839	$5,844,942	$6,028,140	$6,217,657	$53,404,441
Administration	887,897	1,563,554	1,585,403	1,637,489	1,682,651	1,736,922	1,788,713	1,849,818	1,904,287	1,968,155	2,025,479	17,742,471
Contract Work/Special Projects	1,589,454	1,361,725	1,329,000	1,322,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	12,412,725
TOTAL EXPENSES	**$4,801,896**	**$6,983,434**	**$7,406,108**	**$7,961,804**	**$8,084,685**	**$8,299,656**	**$8,517,633**	**$8,717,658**	**$8,949,228**	**$9,196,295**	**$9,443,136**	**$83,559,637**
CAPITAL OUTLAY												
Work In Progress	$18,364,572	$55,258,852	$52,889,250	$49,075,250	$12,900,000	$3,400,000	$3,400,000	$3,400,000	$3,400,000	$3,400,000	$3,000,000	$190,123,352
TOTAL CAPITAL OUTLAY	**$18,364,572**	**$55,258,852**	**$52,889,250**	**$49,075,250**	**$12,900,000**	**$3,400,000**	**$3,400,000**	**$3,400,000**	**$3,400,000**	**$3,400,000**	**$3,000,000**	**$190,123,352**
DEBT SERVICE												
Due to RC Fund	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0		$0
Principal - SRF Loan	624,669	650,616	3,423,467	5,265,201	6,896,237	7,097,410	7,128,785	7,160,898	7,193,766	7,227,408	7,261,841	59,305,628
Principal - Bonds/CP	0	0	15,000,000	0	0	925,000	950,000	981,250	1,006,250	1,043,750	1,075,000	20,981,250
Interest Expense	535,316	1,111,615	1,433,267	3,567,947	3,558,703	3,528,050	3,471,238	3,410,720	3,347,138	3,280,492	3,210,153	29,919,322
Financial Expense	7,494	68,794	1,098,739	44,989	44,989	44,989	44,989	44,989	44,989	44,989	44,989	1,527,443
TOTAL DEBT SERVICE	**$1,167,479**	**$1,831,025**	**$20,955,472**	**$8,878,136**	**$10,499,929**	**$11,595,449**	**$11,595,011**	**$11,597,856**	**$11,592,143**	**$11,596,638**	**$11,591,983**	**$111,733,643**
TRANSFERS IN (OUT)												
Transfer - Capital Contribution-RC	$3,200,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Transfer - Groundwater Support -WW	0	300,000	300,000	300,000	300,000	300,000	700,000	700,000	700,000	700,000	700,000	5,000,000
Capital Equipment Transfer to GG	(54,107)	(66,485)	(30,092)	(30,108)	(40,800)	(40,800)	(40,800)	(40,800)	(40,800)	(40,800)	(40,800)	(412,285)
Support - WC/RO	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL TRANSFERS IN (OUT)	**$3,145,893**	**$233,515**	**$269,908**	**$269,892**	**$259,200**	**$259,200**	**$659,200**	**$659,200**	**$659,200**	**$659,200**	**$659,200**	**$4,587,715**
FUND BALANCE												
NET INCOME (LOSS)	$5,168,647	($3,487,599)	$19,165,087	($10,385,648)	$7,372,712	($1,146,949)	($1,136,144)	($372,973)	$355,074	$1,371,746	$2,905,649	$14,640,954
Beginning Balance July 01	5,425,124	10,593,771	7,106,172	26,271,259	15,885,611	23,258,322	22,111,373	20,975,229	20,602,257	20,957,330	22,329,076	10,593,771
ENDING BALANCE AT JUNE 30	**$10,593,771**	**$7,106,172**	**$26,271,259**	**$15,885,611**	**$23,258,322**	**$22,111,373**	**$20,975,229**	**$20,602,257**	**$20,957,330**	**$22,329,076**	**$25,234,725**	**$25,234,725**
RESERVE BALANCE SUMMARY												
Capital Construction & Replacement	$7,055,461	$0	$14,546,129	$2,211,230	$8,373,648	$7,155,479	$5,943,832	$5,509,897	$5,783,286	$7,077,331	$12,608,864	
Debt Service Reserve	1,937,678	5,094,876	9,256,427	11,020,446	12,189,780	12,189,342	12,192,187	12,186,474	12,190,969	12,186,314	9,478,149	
Operating Contingency	1,600,632	2,011,296	2,468,703	2,653,935	2,694,895	2,766,552	2,839,211	2,905,886	2,983,076	3,065,432	3,147,712	
ENDING BALANCE AT JUNE 30	**10,593,771**	**7,106,172**	**26,271,259**	**15,885,611**	**23,258,322**	**22,111,373**	**20,975,229**	**20,602,257**	**20,957,330**	**22,329,076**	**25,234,725**	

EXHIBIT XI

INLAND EMPIRE UTILITIES AGENCY
Fiscal Year 2008/2009 Budget
SOURCES & USES OF FUNDS

GROUND WATER RECHARGE (RW) FUND

	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total 10 Yr.
	Projected Actual	Proposed Budget	Forecast									
REVENUE												
Contract Cost Reimbursement WM												
Debt Service (WM)	$618,373	$718,746	$717,650	$716,293	$714,880	$713,295	$711,770	$710,182	$708,530	$706,815	$705,027	$7,123,185
Facilities Operations	760,000	790,000	803,176	816,711	830,616	844,901	859,581	874,664	890,165	906,093	922,465	8,538,372
Contract Reimbursement	0	0	0	0	0	0	0	0	0	0	0	0
Other Reimbursable expenses	34,000	0	0	0	15,000	120,000	0	0	0	0	0	135,000
Capital Contribution	750,000	1,125,000	0	0	0	0	0	0	0	0	0	1,125,000
Contract Cost Reimbursement WM Total	$2,162,373	$2,633,746	$1,520,826	$1,533,003	$1,560,496	$1,678,196	$1,571,351	$1,584,845	$1,598,694	$1,612,908	$1,627,492	$16,921,557
Transfers from IEUA funds												
Debt Service	$618,373	$718,746	$717,650	$716,293	$714,880	$713,295	711,770	710,182	708,530	706,815	705,027	7,123,185
Operation support	1,500,000	0	0	0	0	0	0	0	0	0	0	0
Capital support	750,000	1,197,500	0	0	0	0	0	0	0	0	0	1,197,500
Transfers from IEUA funds Total	$2,868,373	$1,916,246	$717,650	$716,293	$714,880	$713,295	$711,770	$710,182	$708,530	$706,815	$705,027	$8,320,685
Grant	$1,602,107	$3,832,000	$0	$0	$0	$0	0	0	0	0	0	3,832,000
Other Revenue	41,600	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	850,000
TOTAL REVENUES	$6,674,453	$8,421,991	$2,288,476	$2,309,296	$2,345,376	$2,471,490	$2,373,121	$2,395,027	$2,417,224	$2,439,722	$2,462,519	$29,924,242
EXPENSES												
DEBT SERVICE												
Financial Expenses	$113,555	$125,689	$123,497	$120,783	$117,958	$114,787	$111,738	$108,561	$105,257	$101,827	$98,252	$1,128,349
Principal 2002 Bonds	432,203	0	0	0	0	0	0	0	0	0	0	0
Interest 2002 Bonds	627,061	0	0	0	0	0	0	0	0	0	0	0
Principal 2008B Bonds	0	511,762	532,233	553,522	575,663	598,689	622,637	647,542	673,444	700,382	728,397	6,144,271
Interest 2008B Bonds	0	800,040	779,570	758,280	736,139	713,113	689,165	664,260	638,358	611,420	583,405	6,973,750
Debt Service Total	$1,172,819	$1,437,491	$1,435,300	$1,432,585	$1,429,760	$1,426,589	$1,423,540	$1,420,363	$1,417,059	$1,413,629	$1,410,054	$14,246,370
CAPITAL OUTLAY												
Basin improvements	$2,260,226	$7,390,726	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,390,726
Equipment	183,222	0	0	0	0	0	0	0	0	0	0	0
Monitoring Wells	4,100	0	0	0	0	0	0	0	0	0	0	0
Capital outlay Total	$2,447,548	$7,390,726	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,390,726
REIMBURSABLE												
Facilities Operations												
SBCFCD-O&M	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$120,000
CBWCD-O&M	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$40,000
IEUA-O&M												
General Basin Maintenance	$304,673	$249,700	$249,700	$249,700	$249,700	$249,700	249,700	249,700	249,700	249,700	249,700	2,497,000
Specialty O&M	54,300	65,000	67,600	70,304	73,116	76,041	79,082	82,246	85,536	88,957	92,515	780,397
GWR General Admin	378,031	281,482	287,442	293,533	299,759	306,122	312,627	319,275	326,072	333,019	340,121	3,099,453
Utilities	109,300	106,000	109,180	112,454	115,827	119,300	122,879	126,564	130,361	134,271	138,299	1,215,135
General Allocation	13,380	71,818	73,254	74,719	76,214	77,738	79,293	80,879	82,496	84,146	85,829	786,387
IEUA-O&M Total	$859,684	$774,000	$787,176	$800,711	$814,616	$828,901	$843,581	$858,664	$874,165	$890,093	$906,465	$8,378,372
Facilities Operations Total	$875,684	$790,000	$803,176	$816,711	$830,616	$844,901	$859,581	$874,664	$890,165	$906,093	$922,465	$8,538,372

EXHIBIT XI (CONTINUED)

INLAND EMPIRE UTILITIES AGENCY
Fiscal Year 2008/2009 Budget
SOURCES & USES OF FUNDS

GROUND WATER RECHARGE (RW) FUND

	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total 10 Yr.
	Projected Actual	Proposed Budget	Forecast									
EXPENSES												
IEUA-Reimbursable contract	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
IEUA Other Reimbursable Expenses												
Special Basin Projects	$524	0	$0	$0	$0	$0	0	0	0	0	0	0
Equipment Reimbursable	0	0	0	0	15,000	120,000	0	0	0	0	0	135,000
IEUA Other Reimbursable Expenses Total	$524	$0	$0	$0	$15,000	$120,000	$0	$0	$0	$0	$0	$135,000
Reimbursable Total	$878,208	$790,000	$803,178	$818,711	$845,818	$984,901	$869,681	$874,884	$890,166	$906,093	$922,466	$8,873,372
NON REIMBURSABLE												
IEUA												
IEUA O&M	$781,166	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Non Reimbursable Administration	749,235	0	0	0	0	0	0	0	0	0	0	0
Capital Projects	126,841	0	0	0	0	0	0	0	0	0	0	0
IEUA Total	1,657,242	0	0	0	0	0	0	0	0	0	0	0
Non Reimbursable Total	$1,657,242	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL EXPENSES	$8,163,817	$8,618,217	$2,238,478	$2,248,298	$2,275,378	$2,391,480	$2,283,121	$2,296,027	$2,307,224	$2,319,722	$2,332,518	$30,310,488
FUND BALANCE SUMMARY												
Net Income (loss)	$520,636	($1,196,226)	$50,000	$60,000	$70,000	$80,000	$90,000	$100,000	$110,000	$120,000	$130,000	($386,226)
Beginning fund balance	1,515,282	2,035,918	839,692	889,692	949,692	1,019,692	1,099,692	1,189,692	1,289,692	1,399,692	1,519,692	2,035,918
ENDING BALANCE AT JUNE 30	$2,035,918	$839,692	$889,692	$949,692	$1,019,692	$1,099,692	$1,189,692	$1,289,692	$1,399,692	$1,519,692	$1,649,692	$1,649,692
RESERVE BALANCE SUMMARY												
Operating Contingency (Bond Requirement)	$718,746	$717,660	$716,293	$714,880	$713,295	$711,770	$710,182	$708,530	$706,815	$705,027	$655,901	
Maintenance Reserve	0	0	0	0	0	0	0	0	0	0	0	
Capital construction	1,317,173	122,042	173,400	234,812	306,398	387,922	479,511	581,163	692,878	814,665	993,791	
ENDING BALANCE AT JUNE 30	$2,035,918	$839,692	$889,692	$949,692	$1,019,692	$1,099,692	$1,189,692	$1,289,692	$1,399,692	$1,519,692	$1,649,692	

EXHIBIT XII

INLAND EMPIRE UTILITIES AGENCY
FISCAL YEAR 2008/2009 BUDGET
SOURCES AND USES OF FUNDS

NON-RECLAIMABLE WASTEWATER SYSTEM (NC) FUND

	2007/2008 Projected Actual	2008/2009 Proposed Budget	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	TOTAL 10 Yr.
REVENUE												
Volumetric Revenue	$2,891,941	$2,507,916	$2,608,233	$2,712,562	$2,821,065	$2,933,907	$3,051,264	$3,173,314	$3,300,247	$3,432,257	$3,569,547	$30,110,313
Excess user Fees	395,195	1,181,715	1,228,983	1,278,142	1,329,268	1,382,439	1,437,736	1,495,246	1,555,056	1,617,258	1,681,948	14,187,791
Capacity Fees	1,540,000	1,917,494	1,994,194	2,073,962	2,156,920	2,243,197	2,332,925	2,426,242	2,523,292	2,624,223	2,729,192	23,021,642
Capacity Sold/CIP	513,926	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	5,000,000
Administrative Service Charges	1,121,095	1,292,598	1,344,301	1,398,073	1,453,996	1,512,156	1,572,643	1,635,548	1,700,970	1,769,009	1,839,769	15,519,064
Special/Reimbursable Contract Services	32,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	80,000
Interest Revenue	676,000	675,250	505,250	504,500	493,750	413,000	392,250	391,500	370,750	340,000	280,000	4,366,250
Other Revenue	299,574	636,236	638,373	640,573	642,841	645,176	647,581	650,059	628,360	630,239	454,822	6,214,259
TOTAL REVENUE	$7,469,731	$8,719,209	$8,827,335	$9,115,813	$9,405,840	$9,637,875	$9,942,399	$10,279,909	$10,586,675	$10,920,986	$11,063,279	$98,499,320
OTHER FUNDING SOURCES												
Bond Proceeds	$7,237,500	$0	0	0	0	0	0	0	0	0	0	$0
TOTAL REVENUE & OTHER FUNDING SOURCES	$7,237,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
EXPENSES												
Operations	$4,485,066	$5,699,018	$5,887,774	$6,112,245	$6,332,857	$6,562,142	$6,800,094	$7,047,049	$7,303,356	$7,569,388	$7,845,506	$67,159,428
Administration	441,756	419,319	428,279	437,452	446,843	456,458	466,403	476,586	487,013	497,692	508,627	4,624,871
Contract Work/Special Projects	152,000	245,500	133,000	133,000	83,000	8,000	8,000	8,000	8,000	8,000	8,000	642,500
TOTAL EXPENSES	$5,078,822	$6,363,837	$6,449,053	$6,682,697	$6,862,700	$7,026,600	$7,274,497	$7,531,635	$7,798,370	$8,075,079	$8,362,133	$72,426,599
CAPITAL OUTLAY												
Work-In-Progress	$3,207,682	$4,242,075	$4,751,068	$832,707	$3,406,777	$3,253,226	$274,096	$1,520,000	$1,220,000	$720,000	$2,523,613	$22,743,562
CSDLAC 4Rs	1,400,000	1,400,000	1,455,000	1,514,000	1,574,000	1,637,000	1,703,000	1,771,000	1,841,000	1,915,000	1,992,000	16,802,000
TOTAL CAPITAL OUTLAY	$4,607,682	$5,642,075	$6,206,068	$2,346,707	$4,980,777	$4,890,226	$1,977,096	$3,291,000	$3,061,000	$2,635,000	$4,515,613	$39,545,562
DEBT SERVICE												
Principal payments	$99,465	$105,432	$111,758	$118,463	$125,570	$133,105	$141,091	$149,556	$158,530	$168,041	$0	$1,211,546
Interest payments	165,109	434,568	428,242	421,536	414,429	406,894	398,908	390,443	381,469	371,958	361,875	4,010,322
TOTAL DEBT SERVICE	$264,574	$540,000	$540,000	$539,999	$539,999	$539,999	$539,999	$539,999	$539,999	$539,999	$361,875	$5,221,868
TRANSFERS IN (OUT)												
Captial Equipment Transfers to GG	($54,107)	($66,485)	($30,092)	($30,108)	($40,800)	($40,800)	($40,800)	($40,800)	($40,800)	($40,800)	($40,800)	($412,285)
Capital Replacement Transfer From RC	0	-	0	0	0	0	0	0	0	0	0	0
TOTAL TRANSFERS IN (OUT)	($54,107)	($66,485)	($30,092)	($30,108)	($40,800)	($40,800)	($40,800)	($40,800)	($40,800)	($40,800)	($40,800)	($412,285)
FUND BALANCE SUMMARY												
Net Income (Loss)	$4,702,046	($3,893,188)	($4,397,878)	($483,697)	($3,018,436)	($2,859,749)	$110,007	($1,123,525)	($853,494)	($369,893)	($2,217,142)	($19,106,995)
Beginning Balance July 01	19,923,104	24,625,150	20,731,962	16,334,084	15,850,387	12,831,951	9,972,202	10,082,209	8,958,684	8,105,190	7,735,297	24,625,150
ENDING BALANCE AT JUNE 30	$24,625,150	$20,731,962	$16,334,084	$15,850,387	$12,831,951	$9,972,202	$10,082,209	$8,958,684	$8,105,190	$7,735,297	$5,518,155	$5,518,155
RESERVE BALANCE SUMMARY												
Operating Contingency	$502,913	$634,595	$644,287	$663,733	$679,625	$696,052	$712,950	$730,300	$748,116	$766,409	$785,197	
CSDLAC Prepayment	1,960,636	2,100,415	2,271,814	2,362,686	2,457,194	2,555,482	2,657,701	2,764,009	2,874,569	2,989,552	3,009,134	
Capital Expansion	21,897,027	17,456,952	12,877,984	12,283,968	9,155,133	6,180,669	6,171,559	4,924,376	3,942,506	3,617,461	1,263,199	
Debt Reserves	264,574	540,000	539,999	539,999	539,999	539,999	539,999	539,999	539,999	361,875	460,625	
ENDING RESERVE BALANCE AT JUNE 30	$24,625,150	$20,731,962	$16,334,084	$15,850,387	$12,831,951	$9,972,202	$10,082,209	$8,958,684	$8,105,190	$7,735,297	$5,518,155	

EXHIBIT XIII

INLAND EMPIRE UTILITIES AGENCY
FISCAL YEAR 2008/2009 BUDGET
SOURCES AND USES OF FUNDS

ORGANICS MANAGEMENT (OM) FUND

	2007/2008 Projected Actual	2008/2009 Proposed Budget	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total 10 Yr.
			Forecast									
REVENUE & OTHER FUNDING SOURCES												
Sale of Property	$0	$0	$0	$2,339,250	$2,339,250	$0	0	0	0	0	0	4,678,500
Interest Revenue	118,526	174,922	313,779	316,554	178,574	41,744	44,878	46,593	51,018	53,030	54,990	1,276,082
Other Revenue	64,020	0	0	0	0	0	0	0	0	0	0	0
RCA Support Reimbursement	2,068,096	2,810,211	2,913,290	3,021,726	3,135,335	3,208,883	3,301,205	3,396,620	3,495,264	3,597,287	3,702,846	32,582,667
TOTAL REVENUE & OTHER FUNDING SOURCES	**$2,250,642**	**$2,985,133**	**$3,227,069**	**$5,677,530**	**$5,653,159**	**$3,250,627**	**$3,346,083**	**$3,443,213**	**$3,546,282**	**$3,650,317**	**$3,757,836**	**$38,537,249**
EXPENSES												
Office & Administrative	$877	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Professional Fees and Services	28,026	0	0	0	0	0	0	0	0	0	0	0
Operation Expenses	33,330	0	0	0	0	0	0	0	0	0	0	0
Operation Contribution to IERCA (excluding labor costs)	2,466,069	3,210,385	3,117,153	3,293,225	3,247,919	3,414,439	3,302,721	3,593,765	3,486,517	3,787,962	3,692,527	34,146,610
Staff Labor & Other Allocation (including RCA)	2,116,184	2,810,211	2,913,290	3,021,726	3,135,335	3,208,883	3,301,205	3,396,620	3,495,264	3,597,287	3,702,846	32,582,667
TOTAL EXPENSES	**$4,644,487**	**$6,020,596**	**$6,030,442**	**$6,314,951**	**$6,383,254**	**$6,623,321**	**$6,603,926**	**$6,990,384**	**$6,981,781**	**$7,385,249**	**$7,395,373**	**$66,729,277**
CAPITAL OUTLAY												
Investment in IERCA	$0	$0	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$1,800,000
Work In Progress	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL CAPITAL OUTLAY	**$0**	**$0**	**$200,000**	**$200,000**	**$200,000**	**$200,000**	**$200,000**	**$200,000**	**$200,000**	**$200,000**	**$200,000**	**$1,800,000**
DEBT SERVICE												
Principal	$380,085	$312,881	$325,000	$338,220	$343,729	$365,763	$380,085	$394,407	$410,932	$420,847	$443,983	$3,735,847
Interest	474,592	484,434	472,879	459,950	454,434	431,791	418,031	402,908	386,916	377,043	353,838	4,640,043
Financial Expense	85,442	31,141	79,997	78,299	76,559	74,848	72,834	70,849	68,807	66,766	64,422	684,522
TOTAL LIABILITIES	**$940,119**	**$828,456**	**$877,876**	**$876,469**	**$874,722**	**$872,402**	**$870,950**	**$868,164**	**$866,655**	**$864,656**	**$862,243**	**$9,060,412**
OTHER SOURCES (USES) OF FUNDS												
Bond Debt Service -RC/OM	$854,677	$797,315	$797,879	$798,170	$798,163	$797,554	$798,116	$797,315	$797,848	$797,890	$797,821	$8,375,890
Capital Contributions IERCA- RC/OM	0	0	100,000	0	100,000	200,000	0	200,000	0	0	0	600,000
Operations Support - RC/OM	2,500,000	2,950,000	1,500,000	0	0	2,000,000	1,500,000	1,100,000	800,000	1,000,000	1,000,000	11,850,000
Operation Support IERCA - RO/OM	0	0	1,500,000	900,000	900,000	1,500,000	2,000,000	2,500,000	3,000,000	3,000,000	3,000,000	18,300,000
Operation Support - RO/OM	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL OTHER SOURCES (USES) OF FUNDS	**$3,354,677**	**$3,747,315**	**$3,897,879**	**$1,698,170**	**$1,798,163**	**$4,497,554**	**$4,298,116**	**$4,597,315**	**$4,597,848**	**$4,797,890**	**$4,797,821**	**$39,125,890**
FUND BALANCE												
Reserve Increase/(Decrease)	$20,714	($116,604)	$16,630	($15,720)	($6,654)	$52,458	($30,677)	($18,020)	$95,695	($1,698)	$98,041	$73,450
Beginning Balance July 01	1,182,144	1,202,858	1,086,254	1,102,883	1,087,163	1,080,510	1,132,967	1,102,290	1,084,270	1,179,964	1,178,267	1,202,858
ENDING BALANCE AT JUNE 30	**$1,202,858**	**$1,086,254**	**$1,102,883**	**$1,087,163**	**$1,080,510**	**$1,132,967**	**$1,102,290**	**$1,084,270**	**$1,179,964**	**$1,178,267**	**$1,276,308**	**$1,276,308**
RESERVE BALANCE SUMMARY												
Capital Replacement	$7,724	$288,375	$304,713	$289,000	$282,956	$334,851	$304,975	$286,422	$382,074	$380,446	$478,487	
Debt Reserve	1,195,134	797,879	798,170	798,163	797,554	798,116	797,315	797,848	797,890	797,821	797,821	
ENDING BALANCE AT JUNE 30	**$1,202,858**	**$1,086,254**	**$1,102,883**	**$1,087,163**	**$1,080,510**	**$1,132,967**	**$1,102,290**	**$1,084,270**	**$1,179,964**	**$1,178,267**	**$1,276,308**	

TEN-YEAR CAPITAL IMPROVEMENT PLAN

APPENDIX A--Incremental EDU Growth Data

INCREMENTAL EDU GROWTH BY AGENCY/FACILITY (EDUs / YR)

AGENCY	YEAR	RP-1	RP-4	RP-1/RP-4	CCWRF	RP-1/5	RP-2/RP-5	RP-5	INCREMENTAL GROWTH	CUMULATIVE TOTAL
	6/30/02 Baseline	**12,683**	**15,745**	**19,262**					**N/A**	**47,690**
	6/30/03 Baseline	**13,411**	**16,640**	**20,534**					**N/A**	**50,585**
	6/30/04 Baseline	**14,682**	**17,922**	**22,316**					**N/A**	**54,920**
	6/30/05 Baseline	**14,811**	**18,101**	**22,509**					**N/A**	**55,421**
	6/30/06 Baseline	**15,211**	**18,551**	**23,033**					**N/A**	**56,795**
CVWD	**6/30/07 Baseline**	**16,081**	**19,251**	**23,524**					**N/A**	**58,856**
	07/08	330	404	489					1,223	**60,079**
	08/09	337	412	499					1,248	**61,327**
Flows shown in	09/10	344	420	509					1,273	**62,600**
"RP-1/RP-4" column are	10/11	351	429	519					1,299	**63,899**
currently received by RP-1, but may in	11/12	357	437	529					1,323	**65,222**
future bypass to RP-4, as the	12/13	365	446	540					1,351	**66,573**
RP-4 Trunk Sewer is constructed.	13/14	372	456	551					1,379	**67,952**
	14/15	380	464	562					1,406	**69,358**
	15/16	388	473	573					1,434	**70,792**
	16/17	395	483	584					1,462	
	TEN-YR TOTALS	***19,305***	***23,192***	***28,295***	***0***	***0***	***0***	***0***	***11,936***	
	6/30/02 Baseline	**9,768**	**8,918**	**23,783**					**N/A**	**42,469**
	6/30/03 Baseline	**10,535**	**10,082**	**23,863**					**N/A**	**44,480**
	6/30/04 Baseline	**12,306**	**13,725**	**21,298**					**N/A**	**47,329**
	6/30/05 Baseline	**12,590**	**14,043**	**21,791**					**N/A**	**48,424**
	6/30/06 Baseline	**12,685**	**15,293**	**21,854**					**N/A**	**49,832**
	6/30/07 Baseline	**13,060**	**15,729**	**22,129**					**N/A**	**50,918**
FONTANA	07/08	80	480	40					600	**51,518**
	08/09	92	460	46					598	**52,116**
	09/10	105	470	55					630	**52,746**
Flows from the "RP-1/RP-4"	10/11	122	600	61					783	**53,529**
service areas currently go to	11/12	96	775	48					919	**54,448**
RP-1, but may in future go to	12/13	84	915	42					1,041	**55,489**
RP-4 when San Bernardino Ave.	13/14	100	1,005	50					1,155	**56,644**
Interceptor and Pump Station is	14/15	87	1,015	43					1,145	**57,789**
constructed.	15/16	92	959	46					1,097	**58,886**
	16/17	87	925	43					1,055	**59,941**
	TEN-YR TOTALS	***945***	***7,604***	***474***	***0***	***0***	***0***	***0***	***9,023***	
	6/30/02 Baseline	**732**			**10,703**				**N/A**	**11,435**
	6/30/03 Baseline	**728**			**10,649**				**N/A**	**11,378**
	6/30/04 Baseline	**720**			**10,536**				**N/A**	**11,256**
	6/30/05 Baseline	**731**			**10,511**				**N/A**	**11,242**
	6/30/06 Baseline	**921**			**10,546**				**N/A**	**11,467**
	6/30/07 Baseline	**923**			**10,654**				**N/A**	**11,577**
MONTCLAIR	07/08	56			166				222	**11,799**
	08/09	104			371				475	**12,274**
	09/10	58			188				246	**12,520**
Items shown in "CCWRF" column	10/11	30			100				130	**12,650**
flow directly to CCWRF unless	11/12	30			60				90	**12,740**
diverted to RP-1. This	12/13	24			60				84	**12,824**
breakdown assumes no	13/14	24			60				84	**12,908**
diversions.	14/15	24			60				84	**12,992**
	15/16	24			60				84	**13,076**
	16/17	24			60				84	**13,160**
	TEN-YR TOTAL	***398***	***0***	***0***	***1,185***	***0***	***0***	***0***	***1,583***	
	6/30/02 Baseline	**57,660**						**0**	**N/A**	**57,660**
	6/30/03 Baseline	**58,415**						**0**	**N/A**	**58,415**
	6/30/04 Baseline	**45,437**				**12,978**		**0**	**N/A**	**58,415**
	6/30/05 Baseline	**46,037**				**13,182**		**0**	**N/A**	**59,219**
	6/30/06 Baseline	**46,237**				**13,344**		**0**	**N/A**	**59,581**
	6/30/07 Baseline	**46,587**				**13,344**		**173**	**N/A**	**60,104**
ONTARIO	07/08	1,600						400	2,000	**62,104**
	08/09	600						530	1,130	**63,234**
The flows going to RP-5 increases as:	09/10	600						650	1,250	**64,484**
1) The RP-1/RP-5 Bypass Sewer comes on line,	10/11	600						2,500	3,100	**67,584**
2) New Model Colony is built,	11/12	500						3,000	3,500	**71,084**
3) Portions of Ag Preserve become	12/13	500						3,000	3,500	**74,584**
sewered, and	13/14	500						3,000	3,500	**78,084**
4) Flow is diverted from RP-1 Lift	14/15	500						3,000	3,500	**81,584**
Station by gravity flow to RP-5.	15/16	500						3,000	3,500	**85,084**
	16/17	500						3,000	3,500	**88,584**
	TEN-YR TOTAL	***6,400***	***0***	***0***	***0***	***0***	***0***	***22,080***	***28,480***	

INCREMENTAL EDU GROWTH BY AGENCY/FACILITY (EDUs / YR)

AGENCY	YEAR	RP-1	RP-4	RP-1/RP-4	CCWRF	RP-1/5	RP-2/RP-5	RP-5	INCREMENTAL GROWTH	CUMULATIVE TOTAL
	6/30/02 Baseline	**19,487**			**6,018**				**N/A**	**25,505**
	6/30/03 Baseline	**19,683**			**6,030**				**N/A**	**25,713**
	6/30/04 Baseline	**19,898**			**6,042**				**N/A**	**25,940**
	6/30/05 Baseline	**20,298**			**6,439**				**N/A**	**26,737**
	6/30/06 Baseline	**20,430**			**6,571**				**N/A**	**27,001**
	6/30/07 Baseline	**20,489**			**6,602**				**N/A**	**27,091**
UPLAND	07/08	52			193				245	**27,336**
	08/09	120			167				287	**27,623**
Items shown in the CCWRF	09/10	124			407				531	**28,154**
column could be diverted to	10/11	354			192				546	**28,700**
RP-1. This breakdown assumes	11/12	366			308				674	**29,374**
no diversions.	12/13	420			95				515	**29,889**
	13/14	322			30				352	**30,241**
	14/15	220			30				250	**30,491**
	15/16	245			30				275	**30,766**
	16/17	145			83				228	**30,994**
	TEN-YR TOTAL	***2,368***	***0***	***0***	***1,535***	***0***	***0***	***0***	***3,903***	
	6/30/02 Baseline	**622**			**14,096**		**0**	**2,304**	**N/A**	**17,022**
	6/30/03 Baseline	**622**			**11,415**		**0**	**2,167**	**N/A**	**14,204**
	6/30/04 Baseline	**622**			**11,370**		**19**	**2,189**	**N/A**	**14,200**
	6/30/05 Baseline	**622**			**12,459**		**1,111**	**2,315**	**N/A**	**16,507**
	6/30/06 Baseline	**622**			**12,734**		**1,689**	**2,411**	**N/A**	**17,456**
	6/30/07 Baseline	**622**			**12,922**		**1,708**	**3,711**	**N/A**	**18,963**
CHINO	07/08	10			60		6	495	571	**19,534**
	08/09	172			120		9	200	501	**20,035**
1) Flow from "RP-2/5" service area	09/10	0			0		157	202	359	**20,394**
is lifted to RP-5 by a pump station	10/11	3			5		250	250	508	**20,902**
located at RP-2 or by The Preserve Lift	11/12	0			0		450	152	602	**21,504**
Stations. Flow from "RP-5"	12/13	0			0		350	150	500	**22,004**
2) Flow from "RP-5" servive area	13/14	3			0		207	152	362	**22,366**
flows directly to RP-5	14/15	2			5		200	150	357	**22,723**
	15/16	0			0		200	150	350	**23,073**
	16/17	2			0		200	150	352	**23,425**
	TEN-YR TOTAL	***192***	***0***	***0***	***190***	***0***	***2,029***	***2,051***	***4,462***	
	6/30/02 Baseline				**10,942**		**1,622**	**10,408**	**N/A**	**22,972**
	6/30/03 Baseline				**11,024**		**1,622**	**10,867**	**N/A**	**23,513**
	6/30/04 Baseline				**11,183**		**1,622**	**11,312**	**N/A**	**24,116**
	6/30/05 Baseline				**11,275**		**1,622**	**11,494**	**N/A**	**24,391**
	6/30/06 Baseline				**11,384**		**1,622**	**11,684**	**N/A**	**24,690**
	6/30/07 Baseline				**11,424**		**1,622**	**12,174**	**N/A**	**25,220**
CHINO HILLS	07/08				160		0	70	230	**25,450**
	08/09				189		0	531	720	**26,170**
1) Flow from "RP-2/RP-5" service	09/10				255		0	1,041	1,296	**27,466**
area is lifted to RP-5 by	10/11				251		0	490	741	**28,207**
a pump station located	11/12				42		0	245	287	**28,494**
at RP-2. Flow from	12/13				38		0	220	258	**28,752**
2) Flow from "RP-5 service area flows	13/14				27		0	70	97	**28,849**
directly to RP-5.	14/15				36		0	47	83	**28,932**
	15/16				3		0	11	14	**28,946**
	16/17				1		0	5	6	**28,952**
	TEN-YR TOTAL	***0***	***0***	***0***	***1,002***	***0***	***0***	***2,730***	***3,732***	

	YEAR	RP-1	RP-4	RP-1/RP-4	CCWRF	RP-1/5	RP-2/RP-5	RP-5	SUM	
	6/30/02 Baseline	**100,952**	**24,663**	**43,045**	**41,759**	**0**	**1,622**	**12,712**	**-**	**224,753**
	6/30/03 Baseline	**103,394**	**26,722**	**44,397**	**39,118**	**0**	**1,622**	**13,034**	**-**	**228,288**
	6/30/04 Baseline	**93,665**	**31,647**	**43,614**	**39,131**	**12,978**	**1,641**	**13,501**	**-**	**236,176**
	6/30/05 Baseline	**95,089**	**32,144**	**44,300**	**40,684**	**13,182**	**2,733**	**13,809**	**-**	**241,941**
	6/30/06 Baseline	**96,106**	**33,844**	**44,887**	**41,235**	**13,344**	**3,311**	**14,095**		**246,822**
	6/30/07 Baseline	**97,762**	**34,980**	**45,653**	**41,602**	**13,344**	**3,330**	**16,058**		**252,729**
GRAND TOTALS	07/08	2,128	884	529	579	0	6	965	**5,091**	**257,820**
	08/09	1,425	872	545	847	0	9	1,261	**4,959**	**262,779**
	09/10	1,231	890	564	850	0	157	1,893	**5,585**	**268,364**
	10/11	1,460	1,029	580	548	0	250	3,240	**7,107**	**275,471**
	11/12	1,349	1,212	577	410	0	450	3,397	**7,395**	**282,866**
	12/13	1,393	1,361	582	193	0	350	3,370	**7,249**	**290,115**
	13/14	1,321	1,461	601	117	0	207	3,222	**6,929**	**297,044**
	14/15	1,213	1,479	605	131	0	200	3,197	**6,825**	**303,869**
	15/16	1,249	1,432	619	93	0	200	3,161	**6,754**	**310,623**
	16/17	1,153	1,408	627	144	0	200	3,155	**6,687**	**317,310**
TOTAL	***TEN-YR TOTAL***	**13,922**	**12,028**	**5,829**	**3,912**	**0**	**2,029**	**26,861**	**64,581**	
10-yr avg (07/08-16/17)		**1,392**	**1,203**	**583**	**391**	**0**	**203**	**2,686**	**6,458**	

Baseline Total By Treatment Plant	RP-1	RP-4	RP-1/RP-4	CCWRF	RP-1/RP-5	RP-2/RP-5	RP-5
07/08	**99,890**	**35,864**	**46,182**	**42,181**	**13,344**	**3,336**	**17,023**
08/09	**101,315**	**36,736**	**46,727**	**43,028**	**13,344**	**3,345**	**18,284**
09/10	**102,546**	**37,626**	**47,291**	**43,878**	**13,344**	**3,502**	**20,177**
10/11	**104,006**	**38,655**	**47,871**	**44,426**	**13,344**	**3,752**	**23,417**
11/12	**105,355**	**39,867**	**48,448**	**44,836**	**13,344**	**4,202**	**26,814**
12/13	**106,748**	**41,228**	**49,030**	**45,029**	**13,344**	**4,552**	**30,184**
13/14	**108,069**	**42,689**	**49,631**	**45,146**	**13,344**	**4,759**	**33,406**
14/15	**109,282**	**44,168**	**50,236**	**45,277**	**13,344**	**4,959**	**36,603**
15/16	**110,531**	**45,600**	**50,855**	**45,370**	**13,344**	**5,159**	**39,764**
16/17	**111,684**	**47,008**	**51,482**	**45,514**	**13,344**	**5,359**	**42,919**

APPENDIX B

PROPOSED CAPITAL PROJECTS SUMMARY

IEUA Ten-Year Capital Improvement Plan Projects

Recycled Water (WC) Program

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
WC	EN03500	Recyc Wtr Special Projects	0	0	0	0	0	0	0	0	0	0	0	0	75,000
WC	EN05012	Land Phase II Recyc Wtr Proj	0	0	0	0	0	0	0	0	0	0	0	0	1,160,412
WC	EN05038	Edison-Merrill Recyc Wtr Pipln	7,387	0	0	0	0	0	0	0	0	0	0	0	9,075,222
WC	EN05057	RP5/RP2 Recyc Water Pipelines	215,000	1,452,203	0	0	0	0	0	0	0	0	0	1,452,203	3,975,545
WC	EN06023	RW Lns Reb Cty Chino	130,000	1,328,000	0	0	0	0	0	0	0	0	0	1,328,000	1,833,000
WC	EN06025	Wineville Ext Recy Wtr Pipln	50,000	50,000	7,128,000	692,000	0	0	0	0	0	0	0	7,870,000	8,265,445
WC	EN07010	900 W.Reservoir & Pipeline	50,000	1,500,000	13,287,000	1,593,000	0	0	0	0	0	0	0	16,380,000	16,380,000
WC	EN07015	7th & 8th St SB Pipeline	88,830	0	0	0	0	0	0	0	0	0	0	0	3,309,064
WC	EN07018	RP1 Outfall Parallel Reg RWP	0	0	0	0	0	0	0	0	0	0	0	0	14,122,881
WC	EN08017	RW Reservoir&Pipeline (930 E)	0	0	0	0	0	0	0	0	0	0	0	0	20,850,000
WC	EN08018	1270 W Reservoir and Pipeline	50,000	100,000	1,000,000	13,025,000	0	0	0	0	0	0	0	14,125,000	14,125,000
WC	EN09001	Heritage Village Lateral	0	50,000	2,000,000	0	0	0	0	0	0	0	0	2,050,000	2,050,000
WC	EN09002	Church Street Lateral	0	1,500,000	201,000	0	0	0	0	0	0	0	0	1,701,000	1,701,000
WC	EN09003	1430 W Reservoir and 1630 W Pump Station	0	100,000	5,887,250	7,317,750	0	0	0	0	0	0	0	13,305,000	13,305,000
WC	EN09004	800 W. Reservior and Pipeline	0	50,000	50,000	2,900,000	0	0	0	0	0	0	0	3,000,000	3,000,000
WC	EN09006	Napa Lateral	0	50,000	50,000	1,601,000	0	0	0	0	0	0	0	1,701,000	1,701,000
WC	EN09007	1630 E Pipeline Segment B	0	0	600,000	6,000,000	0	0	0	0	0	0	0	6,600,000	6,600,000
WC	EN09008	Chino Hills Storage	0	150,000	0	0	0	0	0	0	0	0	0	150,000	150,000
WC	EN09009	1630 W Reservoir and Pipeline	0	0	0	1,000,000	9,500,000	0	0	0	0	0	0	10,500,000	10,500,000
WC	EN09010	930 W El Prado Pipeline	0	50,000	563,500	5,521,500	0	0	0	0	0	0	0	6,135,000	6,135,000
WC	EN09012	Victoria & San Sevaine - Wells & Lysimeter Installation	0	1,500,000	0	0	0	0	0	0	0	0	0	1,500,000	1,500,000
WC	EN10001	RP-5 Recycled Water Pump Station Expansion - Phase I	0	50,000	50,000	2,900,000	0	0	0	0	0	0	0	3,000,000	3,000,000
WC	EN11007	San Sevaine and Etiwanda Recharge Basins RW Supply	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	EN16001	1600 Highland Regional Recycled Water Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	EN16002	Bickmore Avenue Regional Recycled Water Pipleline	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	EN16003	Etiwanda Ave Pipeline South Exchange	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	EN16004	Euclid Avenue Interconnect and Reservoir	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	EN16005	RP-1 to 1050 Zone PS	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	EN16006	Whitram Parallel Regional Recycled Water Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0
WC	WR04441	RP-4 1158 & 1270 PZ Pmp Stns	3,440,805	6,041,217	0	0	0	0	0	0	0	0	0	6,041,217	10,418,000
WC	WR04442	Etiwanda Ave 42" Pipline 22Kft	823,527	535,473	0	0	0	0	0	0	0	0	0	535,473	1,571,674
WC	WR04444	RP1 South RW Pump Station	567,755	0	0	0	0	0	0	0	0	0	0	0	5,201,974
WC	WR04445	West Edison SAC RW Pipeline-A	125,483	0	0	0	0	0	0	0	0	0	0	0	6,803,200
WC	WR04446	San Antonio Channel Pipelin-B	3,561,154	0	0	0	0	0	0	0	0	0	0	0	9,802,693
WC	WR04447	RP4 Area 1158 Pipeline	2,711,121	0	0	0	0	0	0	0	0	0	0	0	3,815,125
WC	WR04448	RP4 Area 1158 Reservoir	2,902,525	2,492,705	0	0	0	0	0	0	0	0	0	2,492,705	5,679,000
WC	WR08020	Misc Connections & Retrofits	1,791,360	1,000,000	5,500,000	6,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	33,500,000	35,291,360
WC	WR08023	Euclid RW Lateral	250,000	1,000,000	1,810,000	0	0	0	0	0	0	0	0	2,810,000	3,060,000
WC	WR08027	1299 E Pipeline	1,000,000	8,169,925	2,000,000	0	0	0	0	0	0	0	0	10,169,925	11,169,925
WC	WR08028	1299 E Reservoir	500,000	3,100,000	0	0	0	0	0	0	0	0	0	3,100,000	3,600,000
WC	WR08029	1630 E Pump Station	500,000	11,500,000	0	0	0	0	0	0	0	0	0	11,500,000	12,000,000
WC	WR08030	Baseline Regional Pipeline	0	50,000	4,000,000	125,000	0	0	0	0	0	0	0	4,175,000	4,200,000
WC	WR08031	1630 E Pipeline Segment A	500,000	11,187,555	1,145,000	0	0	0	0	0	0	0	0	12,332,555	12,832,555
WC	WR08032	1430 W Pipeline	60,000	500,000	7,217,500	0	0	0	0	0	0	0	0	7,717,500	7,777,500
			19,324,947	**53,507,078**	**52,489,250**	**48,675,250**	**12,500,000**	**3,000,000**	**3,000,000**	**3,000,000**	**3,000,000**	**3,000,000**	**3000000**	**185,171,578**	**276,036,575**

IEUA Ten Year Capital Improvement Plan Projects

Recycled Water (WC) Program

(Continued)

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
WC	RW08002	Transmit Time Flow Meter	11,508	0	0	0	0	0	0	0	0	0	0	0	11,508
WC	RW08003	Pressure Data Logger	12,930	0	0	0	0	0	0	0	0	0	0	0	12,930
			24,438	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24,438**
WC	PL05012	Max Benefit Basin Plan	37,512	4,000	4,000	32,000	0	0	0	0	0	0	0	40,000	475,000
WC	RW08007	FY 07/08 SAWPA Participation	149,454	0	0	0	0	0	0	0	0	0	0	0	149,454
WC	RW09007	FY 08/09 SAWPA Participation	0	102,725	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	1,452,725	1,452,725
WC	TS09001	Abandon Wll Nr Trnr1		80,000	0	0	0	0	0	0	0	0	0	80,000	100,000
WC	WR08012	RW Program Admin/Pln	504,000	650,000	650,000	650,000	650,000	650,000	650,000	650,000	650,000	650,000	650,000	6,500,000	7,004,000
WC	WR08013	FY0708 RW Prog-Mktg/Tech. Assis	171,420	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	4,000,000	4,171,420
			862,386	**1,236,725**	**1,204,000**	**1,232,000**	**1,200,000**	**1,200,000**	**1,200,000**	**1,200,000**	**1,200,000**	**1,200,000**	**1,200,000**	**12,072,725**	**13,352,599**
WC	CW07500	FY0607 Recycled Wtr Reimb Cost	0	0	0	0	0	0	0	0	0	0	0	0	15,000
WC	WR08018	GWR Relative Risk Assessment	300,000	125,000	125,000	90,000	0	0	0	0	0	0	0	340,000	640,000
WC	WR08021	Study Participation	5,000	0	0	0	0	0	0	0	0	0	0	0	5,000
			305,000	**125,000**	**125,000**	**90,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**340,000**	**660,000**
WC	EN05055	Misc WC Construction Projects	500,000	500,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	0	3,700,000	4,802,525
WC	EN08014	CIM Recycled Water Connection	78,226	316,774	0	0	0	0	0	0	0	0	0	316,774	400,000
WC	EN08015	Bickmore Cathodic Protection	15,000	85,000	0	0	0	0	0	0	0	0	0	85,000	100,000
WC	EN08016	RP-4 Outfall Pipeline Repair	150,000	850,000	0	0	0	0	0	0	0	0	0	850,000	1,000,000
			743,226	**1,751,774**	**400,000**	**400,000**	**400,000**	**400,000**	**400,000**	**400,000**	**400,000**	**400,000**	**0**	**4,951,774**	**6,302,525**
			21,259,997	**56,620,577**	**54,218,250**	**50,397,250**	**14,100,000**	**4,600,000**	**4,600,000**	**4,600,000**	**4,600,000**	**4,600,000**	**4200000**	**202,536,077**	**296,376,137**

IEUA Ten-Year Capital Improvement Plan Projects

Non-Reclaimable Wastewater System (NC) Program

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
NC	EN03700	NRW Special Projects	0	0	0	0	0	0	0	0	0	0	0	0	125,000
NC	EN07117	RP2-SARI Dump Site Relocation	12,000	850,000	50,000	0	0	0	0	0	0	0	0	900,000	1,068,291
NC	EN08003	City of Ontario - Brine Line		0	0	0	0	0	0	0	0	0	0	0	1,867,289
NC	EN08025	City of Ontario - Brine Line (Old EN08	630,000	670,000	0	0	0	0	0	0	0	0	0	670,000	1,300,000
			642,000	**1,520,000**	**50,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,570,000**	**4,360,580**
NC	EC07013	East End Meter Calibration	15,000	15,000	0	0	0	0	0	0	0	0	0	15,000	30,000
NC	EC08013	NRWS Pipeline Cleaning	50,000	125,000	125,000	125,000	75,000	0	0	0	0	0	0	450,000	500,000
NC	EC08017	Regional Brine Mgmt Study	25,000	97,500	0	0	0	0	0	0	0	0	0	97,500	122,500
			90,000	**237,500**	**125,000**	**125,000**	**75,000**	**0**	**0**	**0**	**0**	**0**	**0**	**562,500**	**652,500**
NC	CW07700	NRW 0607 Connections & Reimb Constr	0	0	0	0	0	0	0	0	0	0	0	0	6,000
NC	CW08004	SAWPA SARI 4A2 Meter Maint	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	25,000	27,500
NC	CW08005	SAWPA SARI Sewer Ppl	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	55,000	60,500
NC	EC08015	SARI Fee-Green River	24,000	0	0	0	0	0	0	0	0	0	0	0	24,000
			32,000	**8,000**	**8,000**	**8,000**	**8,000**	**8,000**	**8,000**	**8,000**	**8,000**	**8,000**	**8000**	**80,000**	**118,000**
NC	EB07001	NRW Site Recorders	2,000	15,263	0	0	0	0	0	0	0	0	0	15,263	17,263
NC	EC08009	CSDLAC Capital Rplc	1,400,000	1,400,000	1,455,000	1,514,000	1,574,000	1,637,000	1,703,000	1,771,000	1,841,000	1,915,000	1,992,000	16,802,000	18,202,000
NC	EN03750	NRWS Connections & Emergency Pipeline Repairs	60,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000		1,800,000	2,146,220
NC	EN07002	Reliant Energy 21" Valve	22,260	0	0	0	0	0	0	0	0	0	0	0	31,822
NC	EN07011	NRW System Upgrades	2,421,422	2,486,812	4,481,068	612,707	3,186,777	3,033,226	54,096	1,300,000	1,000,000	500,000		16,654,686	22,797,572
NC	GM06003	CEO/GM NRWS Cap Repl	20,000	0	0	0	0	0	0	0	0	0	0	0	20,000
NC	GM07003	CEO/GM NRWS Cap Repl	20,000	0	0	0	0	0	0	0	0	0	0	0	20,000
NC	GM08003	CEO/GM NRWS Cap Repl	20,000	0	0	0	0	0	0	0	0	0	0	0	20,000
NC	GM09003	CEO/GM NRWS Cap Repl		20,000	0	0	0	0	0	0	0	0	0	20,000	20,000
NC	GM10003	CEO/GM NRWS Cap Repl		0	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	180,000	180,000
			3,965,682	**4,122,075**	**6,156,068**	**2,346,707**	**4,980,777**	**4,890,226**	**1,977,096**	**3,291,000**	**3,061,000**	**2,635,000**	**2,012,000**	**35,471,949**	**43,454,877**
			4,729,682	**5,887,575**	**6,339,068**	**2,479,707**	**5,063,777**	**4,898,226**	**1,985,096**	**3,299,000**	**3,069,000**	**2,643,000**	**2,020,000**	**37,684,449**	**48,585,957**

IEUA Ten-Year Capital Improvement Plan Projects

Organic Management (OM) Program

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
OM	EN08001	Install Backup Generator RP-4	16,040	0	0	0	0	0	0	0	0	0	0	0	1,138,424
OM	OR07001	RP-4 IERCA Compost S		0	0	0	0	0	0	0	0	0	0	0	1,869,000
OM	PL03001	Co-Compostg PhaseOut		0	0	0	0	0	0	0	0	0	0	0	650,000
			16,040	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,657,424**
			16,040	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,657,424**

IEUA Ten-Year Capital Improvement Plan Projects

Recharge Water (RW) Program

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
RW	EN06024	Expnsn Rechrg Sys	4,100	0	0	0	0	0	0	0	0	0	0	0	306,477
RW	TS07004	Recharge Enhancement Project	2,260,226	7,390,726	0	0	0	0	0	0	0	0	0	7,390,726	11,083,000
			2,264,326	**7,390,726**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7,390,726**	**11,389,477**
RW	GW08002	Modify Water Flow M.		0	0	0	0	0	0	0	0	0	0	0	34,000
RW	IS10012	Upgrade to Review SE & FT Portal - GWR		0	0	0	0	0	0	0	0	0	0	0	150,000
RW	IS12003	Network Equipment Replacement - GWR		0	0	0	15,000	20,000	0	0	0	0	0	35,000	35,000
RW	IS13003	PC Workstation Replacement - GWR		0	0	0	0	35,000	0	0	0	0	0	35,000	35,000
RW	IS13004	Notebook Replacement - GWR		0	0	0	0	15,000	0	0	0	0	0	15,000	15,000
RW	IS13005	Server Replacement - GWR		0	0	0	0	50,000	0	0	0	0	0	50,000	50,000
RW	LB07005	GCMS for Volatiles	150,000	0	0	0	0	0	0	0	0	0	0	0	152,850
RW	TS07003	Install 6 Turbidity Meters	33,222	0	0	0	0	0	0	0	0	0	0	0	40,000
			183,222	**0**	**0**	**0**	**15,000**	**120,000**	**0**	**0**	**0**	**0**	**0**	**135,000**	**511,850**
RW	GW08003	Vegetation Monitorng	20,796	0	21,000	0	0	25,000	0	0	25,000	0	0	71,000	91,796
RW	GW09001	San Sevaine Channel Repair		0	0	0	0	0	0	0	0	0	0	0	500,000
RW	PL05015	FEMA-Storm Damage Ba	85,994	0	0	0	0	0	0	0	0	0	0	0	1,296,740
RW	TS06003	Hanson Damage-Lower Day Basin	51	0	0	0	0	0	0	0	0	0	0	0	134,000
RW	TS07007	Abandon Wll Nr Trnr1	20,000		0	0	0	0	0	0	0	0	0	0	20,000
			126,841	**0**	**21,000**	**0**	**0**	**25,000**	**0**	**0**	**25,000**	**0**	**0**	**71,000**	**2,042,536**
RW	PL05403	"8th Street Bsns#1,2,-FEMA"	524	0	0	0	0	0	0	0	0	0	0	0	7,926
RW	PL05415	ELY BASINS #1,2-FEMA PKG#66		0	0	0	0	0	0	0	0	0	0	0	0
RW	PL05416	VICTORIA BASIN-FEMA PKG#58		0	0	0	0	0	0	0	0	0	0	0	0
			524	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7,926**
			2,574,913	**7,390,726**	**21,000**	**0**	**15,000**	**145,000**	**0**	**0**	**25,000**	**0**	**0**	**7,596,726**	**13,951,789**

IEUA Ten-Year Capital Improvement Plan Projects

Regional Program- RP1

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
RC	CP08007	RP-1 East Side Landscape	60,000	16,995	0	0	0	0	0	0	0	0	0	16,995	60,000
RC	CP08013	RP-1 E Sd Lndscp Imp	47,750	24,360	0	0	0	0	0	0	0	0	0	24,360	48,000
RC	EN04026	AllFacCoating/Paint	0	0	0	0	0	0	0	0	0	0	0	0	1,300,000
RC	EN04036	RP1 3-Phase Digestion Improvement (includes EN05010, EN05059 & EN05071)	5,038,999	0	0	0	0	0	0	0	0	0	0	0	10,897,747
RC	EN05006	RP1TrnD(Odor Ctrl Fltr&Redund)		0	0	0	0	0	0	0	0	0	0	0	30,200,000
RC	EN05011	TP1 Sodium Hypochlorite Stn Ex		0	0	0	0	276,618	0	0	0	0	0	276,618	333,648
RC	EN05014	RP1 Pri.Sludge Thickening		0	0	320,000	1,782,922	0	0	0	0	0	0	2,102,922	2,102,922
RC	EN05028	TP1 Flash Mixer Access	148,816	0	0	0	0	0	0	0	0	0	0	0	313,716
RC	EN05030	RP1 Food Waste Storage Pump St		0	0	0	0	0	0	0	0	0	0	0	974,745
RC	EN06015	RP1 Dewatering Facility Expnsn	685,048	2,008,756	9,518,696	11,111,997	0	0	0	0	0	0	0	22,639,449	24,786,822
RC	EN06017	RP1 CoGen Fac Expsn		0	0	0	0	0	0	0	0	0	0	0	8,000,000
RC	EN07006	RP1 Facilities Improvements	4,946,828	3,030,438	1,831,550	3,940,750	3,940,750	0	0	0	0	0	0	12,743,488	30,904,289
RC	EN08004	RP-1 Upgrades	0	0	0	187,000	2,654,412	0	0	0	0	0	0	2,841,412	4,330,867
RC	EN08005	RP-1 Engine Controls	38,000	32,300	0	0	0	0	0	0	0	0	0	32,300	2,768,844
RO	EN08012	All Facilities Asphalt Maint		0	0	0	0	0	0	0	0	0	0	0	1,386,200
RC	EN08022	RP-1 Solar Power Plant		1,000,000	0	0	0	0	0	0	0	0	0	1,000,000	8,500,000
RO	EN08023	RP-1 Asset Replacement		1,165,393	407,669	3,400,000	2,700,000	2,000,000	50,000	250,000	0	0	0	9,973,062	20,059,387
RO	EN08024	RP-1 Digester No. 3 Roof Repair	72,000	1,532,270	0	0	0	0	0	0	0	0	0	1,532,270	1,604,270
RC	EN11002	RP-1 Tertiary Filter Expansion	0	0	0	2,000,000	1,425,000	0	0	0	0	0	0	3,425,000	3,425,000
RC	EN11003	RP-1 Storm Water Contain Improvement Phase II	0	0	0	438,000	0	0	0	0	0	0	0	438,000	438,000
RC	EN11006	RP-1 Food Waste Program	0	0	0	1,135,553	0	0	0	0	0	0	0	1,135,553	1,135,553
RC	EN20046	TP1 Outfall Energy Recovery	0	0	0	0	0	0	0	0	0	0	0	0	697,356
RC	PA08001	Purchase Tuff Shed for RP1	26,900	0	0	0	0	0	0	0	0	0	0	0	26,900
RC	PL03006	RP1 Odor Control - Phase I	3,702,270	700,000	0	0	0	0	0	0	0	0	0	700,000	10,912,900
RC	PL05001	RP1 Modernization		0	0	0	0	0	0	0	0	0	0	0	4,502,000
			14,766,611	**9,510,512**	**11,757,915**	**22,533,300**	**12,503,084**	**2,276,618**	**50,000**	**250,000**	**0**	**0**	**0**	**58,881,429**	**169,709,166**
RC	EA07005	Install Eyewash TP1	25,000	0	0	0	0	0	0	0	0	0	0	0	25,000
RC	EA07012	Westwind Park Statio	3,923	0	0	0	0	0	0	0	0	0	0	0	3,923
RC	EA08001	Purchase 1 3/4 Ton PU Truck	0	0	0	0	0	0	0	0	0	0	0	0	26,938
RC	EM05013	RP1 Install Wireless	249,000	0	0	0	0	0	0	0	0	0	0	0	249,000
RC	EM08004	Purchase Torque Wrench	4,310	0	0	0	0	0	0	0	0	0	0	0	4,310
RC	EM08005	Web Deflection Gage	5,926	0	0	0	0	0	0	0	0	0	0	0	5,926
RC	EN08019	Gas Cleaning Systems for RP-1, RP-2, & RP-5	4,145	3,462,900	0	0	0	0	0	0	0	0	0	3,462,900	4,479,000
RC	EP06005	RP1 Blower #4 Instl	0	300,000	0	0	0	0	0	0	0	0	0	300,000	983,121
RC	IS09015	Upgrade DCS Foxboro Fiber Optic LAN to ATS at RP-1		42,000	0	0	0	0	0	0	0	0	0	42,000	42,000
RC	IS09016	DCS ABStation Upgrade, All Facilities		233,000	0	0	0	0	0	0	0	0	0	233,000	233,000
RC	IS09017	RP-5 DCS Upgrade to Version 8.x		185,000	0	0	0	0	0	0	0	0	0	185,000	185,000
RC	IS09018	DCS WAN Acceleration		40,000	0	0	0	0	0	0	0	0	0	40,000	40,000
RC	IS09019	Auto CAD Electrical 5 Network Lic		37,000	0	0	0	0	0	0	0	0	0	37,000	37,000
RO	IS09020	Replace RP-1 and RP-4 DCS WAN Routers		26,000	0	0	0	0	0	0	0	0	0	26,000	26,000
RO	IS09021	DCS PC Workstation Replacement 10 (AA00607)		38,000	38,000	38,000	38,000	38,000	0	0	0	0	0	190,000	190,000
RO	IS09022	DCS Notebook Replacement 6 (AA00611)		25,000	25,000	25,000	26,000	26,000	0	0	0	0	0	127,000	127,000
RO	IS09023	DCS Server Replacement 3		33,000	33,000	33,000	34,000	34,000	0	0	0	0	0	167,000	167,000
RO	IS09024	DCS Network Equipment Replaacement		17,000	17,000	19,000	19,000	19,000	0	0	0	0	0	91,000	91,000
RC	IS10009	Wireless communications for Montclair ana Philadelphia LS		0	60,000	0	0	0	0	0	0	0	0	60,000	60,000
RC	IS10011	Future DCS Initiatives		0	40,000	50,000	50,000	350,000	0	0	0	0	0	490,000	490,000
RC	IS11001	Advanced Plant Automation (AA00628)		0	0	150,877	0	0	0	0	0	0	0	150,877	150,877
RC	IS11002	Automated Plant Chemical Reordering System (AA00609)		0	0	103,038	0	0	0	0	0	0	0	103,038	103,038
RC	IS12001	Upgrade DCS Foxboro I/A to Infusion (Wonderware)		0	0	0	200,000	0	0	0	0	0	0	200,000	200,000
RC	IS12002	Upgrade DCS AIM Historian to InSQL		0	0	0	100,000	0	0	0	0	0	0	100,000	100,000
RC	LB08003	Lab -Segmented Flow Analyzer	48,877	0	0	0	0	0	0	0	0	0	0	0	48,877
RO	OA08001	DMO Vehicle		0	0	0	0	0	0	0	0	0	0	0	24,783
RO	OA08002	Composite Samplers		0	0	0	0	0	0	0	0	0	0	0	12,930
RO	PA08006	Breathing Air Compre		0	0	0	0	0	0	0	0	0	0	0	42,922
RC	PA08023	Fiber Optic Analyzer	24,000	0	0	0	0	0	0	0	0	0	0	0	24,000
			365,181	**4,438,900**	**213,000**	**418,915**	**467,000**	**467,000**	**0**	**0**	**0**	**0**	**0**	**6,004,815**	**8,172,645**

IEUA Ten Year Capital Improvement Plan Projects

Regional Program- RP1 (Continued)

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
RC	EA04002	TP1 MCC UTILITY WATER PUMP		0	0	0	0	0	0	0	0	0	0	0	81,738
RC	EA07006	RP1 Flow Meter(s) Re	0	102,987	0	0	0	0	0	0	0	0	0	102,987	119,074
RC	EA07007	Relocation of PH/Cond Panel	53,000	0	0	0	0	0	0	0	0	0	0	0	53,000
RC	EA07008	RP1 Air System Upgrades	43,000	0	0	0	0	0	0	0	0	0	0	0	43,000
RC	EA07013	RP1 Stormwater PS Upgrade	82	0	0	0	0	0	0	0	0	0	0	0	82
RC	EA08002	Electric Cart Replacement	20,000	0	0	0	0	0	0	0	0	0	0	0	20,000
RC	EA08003	RP1/RP4 12KV Meter Testing	0	37,784	0	0	0	0	0	0	0	0	0	37,784	45,000
RC	EA08004	Prtable Gas Detector	17,500	0	0	0	0	0	0	0	0	0	0	0	17,500
RC	EA08005	Test 12KV PPE	9,500	0	0	0	0	0	0	0	0	0	0	0	9,500
RC	EA08006	TP1 Traveling Bridge Upgrade	30,000	0	0	0	0	0	0	0	0	0	0	0	30,000
RC	EA08007	Dewatering Gas Detec	22,000	0	0	0	0	0	0	0	0	0	0	0	22,000
RC	EA08008	Replace Test Equipment	48,000	0	0	0	0	0	0	0	0	0	0	0	48,000
RC	EM05009	RP1 CEM DAHS	9,465	0	0	0	0	0	0	0	0	0	0	0	9,465
RC	EM05010	RP1 DCS Vers 7 Hrdwa	2,000	0	0	0	0	0	0	0	0	0	0	0	2,000
RC	EM05016	RP1 UPS at MCB Replacement	17,462	0	0	0	0	0	0	0	0	0	0	0	17,462
RC	EM05017	RP1 Gas System Automation	1,450	0	0	0	0	0	0	0	0	0	0	0	1,450
RC	EM05018	TP1 Rebuild I/O Hubs	3,001	0	0	0	0	0	0	0	0	0	0	0	3,001
RC	EN05007	RP1 Aeration Basin Modification	560,636	1,376,800	0	0	0	0	0	0	0	0	0	1,376,800	13,215,681
RC	EN06010	TP1 Waste Wash Media		0	0	0	0	100,000	558,000	0	0	0	0	658,000	658,000
RC	EN07007	Reg Fac Chem & Control Automat	0	0	0	0	88,931	503,944	0	0	0	0	0	592,875	5,563,040
RC	EN07013	RP1 Bypass Improvements	0	0	0	0	0	0	0	0	0	0	0	0	339,060
RC	EN08002	RP-1,RP-2,CarbCny O&M Manuals	8,158	163,066	252,450	0	0	0	0	0	0	500,000	495,998	1,411,514	1,419,672
RO	EN08013	Plant Equipment Improvements		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000		9,000,000	10,000,000
RC	EN12002	Capital Upgrades to RP-1, RP-2, CCWRF, RP4, &	0	0	0	0	5,000,000	5,000,000	5,000,000	0	0	0	9000000	24,000,000	30,000,000
RO	EN12003	All Facilities Asset Replacement		0	0	0	1,745,000	1,750,000	1,750,000	1,750,000	1,150,000	6,300,000	6,300,000	20,745,000	20,745,000
RC	EP07003	Regional Facilities Report/Replc	450,000	0	0	0	0	0	0	0	0	0	0	0	450,000
RC	EP08001	Regional Facilities Repairs	485,000	0	0	0	0	0	0	0	0	0	0	0	485,000
RC	LB06001	Lab-BOD Incubtr	0	0	0	0	0	0	0	0	0	0	0	0	4,111
RC	LB06002	GC/MS Semi-volaties	0	0	0	0	0	0	0	0	0	0	0	0	121,263
RC	LB08001	Replace Fume Hood Ss	0	44,440	0	0	0	0	0	0	0	0	0	44,440	44,440
RC	LB08002	Lab -BOD Incubator Replacement	0	4,926	0	0	0	0	0	0	0	0	0	4,926	4,926
RC	LB08004	Lab -Dionex IC XYZ Autosampler	20,964	0	0	0	0	0	0	0	0	0	0	0	20,964
RC	LB08005	Lab -Meile Glassware Washer	10,052	0	0	0	0	0	0	0	0	0	0	0	10,052
RC	LB08006	Lab -Perkin Elmer ICP	112,384	0	0	0	0	0	0	0	0	0	0	0	112,384
RC	LB08007	Varian GCMS4000 - reclass from RW per RA	0	145,948	0	0	0	0	0	0	0	0	0	145,948	145,948
RC	PA06010	RP1 Digester PD Pumps	40,000	106,250	0	0	0	0	0	0	0	0	0	106,250	161,591
RC	PA06012	RP1 Primary Clarifiers	0	90,510	76,158	39,000	0	0	0	0	0	0	0	205,668	310,624
RC	PA07007	ASPHALT REPAIR/SLURR	30,275	0	0	0	0	0	0	0	0	0	0	0	30,275
RC	PA07010	Replace 3 RAS Pumps	112,000	0	0	0	0	0	0	0	0	0	0	0	112,000
RC	PA07012	Rebuild All 4 Bar Screens	464,885	0	0	0	0	0	0	0	0	0	0	0	464,885
RC	PA07020	Replace Domain Servers	29,279	0	0	0	0	0	0	0	0	0	0	0	29,279
RC	PA08002	Replace Pressure Washer RP1	6,460	0	0	0	0	0	0	0	0	0	0	0	6,460
RC	PA08003	Purchase "2-6"" Diesel Pumps"	27,050	0	0	0	0	0	0	0	0	0	0	0	27,050
RO	PA08007	Replace Failed Steam Cleaner	7,330	0	0	0	0	0	0	0	0	0	0	0	7,330
RO	PA08008	Replace Failed Mobile Air Comp	16,700	0	0	0	0	0	0	0	0	0	0	0	16,700
RO	PA08009	Replace Safety Equip	43,600	0	0	0	0	0	0	0	0	0	0	0	43,600
RO	PA08011	Replace RP1 Air Compressors	22,900	0	0	0	0	0	0	0	0	0	0	0	22,900
RO	PA08012	Replace Bio-Filter Media RP1		107,750	0	0	0	0	0	0	0	0	0	107,750	107,750
RC	PA08022	RP1 DH+ To Ethernet Upgrade	0	123,476	0	0	0	0	0	0	0	0	0	123,476	123,476
			2,724,133	**3,303,937**	**1,328,608**	**1,039,000**	**7,833,931**	**8,353,944**	**8,308,000**	**2,750,000**	**2,150,000**	**7,800,000**	**15,795,998**	**58,663,418**	**85,325,733**
			17,855,925	**17,253,349**	**13,299,523**	**23,991,215**	**20,804,015**	**11,097,562**	**8,358,000**	**3,000,000**	**2,150,000**	**7,800,000**	**15,795,998**	**123,549,662**	**263,207,544**

IEUA Ten Year Capital Improvement Plan Projects

Regional Program- RP2

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
RC	CP07007	RP2 Frontage Landscape Upgrade	50,000	0	0	0	0	0	0	0	0	0	0	0	50,000
RC	EN04017	RP2 Landscape Improvmnt/Modif		0	0	0	0	0	0	0	0	0	0	0	150,355
RC	EN05019	RP2 Dewatering Bldg Skylight		0	0	0	0	0	0	0	0	0	0	0	25,557
RC	EN05020	RP2 Waste Storage Pump Station	2,600,000	289,000	0	0	0	0	0	0	0	0	0	289,000	3,071,879
RC	EN05027	RP2 System Modifications	162,335	280,500	0	0	0	0	0	0	0	0	0	280,500	3,155,835
RC	EN05050	RP2 Digester Gas Sys Mods	1,450,000	1,190,000	0	0	0	0	0	0	0	0	0	1,190,000	2,997,000
RC	EN05058	RP2 Solids Handling Automation	154,191	0	0	0	0	0	0	0	0	0	0	0	2,698,562
RC	EN05067	RP2 Decommissioning		0	0	0	0	0	0	0	1,000,000	7,000,000	0	8,000,000	8,053,892
RC	EN06014	RP2 Dewtr Cake Storage System	153,623	758,880	0	0	0	0	0	0	0	0	0	758,880	4,645,260
RC	EN07008	RP2 Gravity Thickener	0	1,105,000	252,450	0	0	0	0	0	0	0	0	1,357,450	1,578,100
RC	EN08006	RP-2 & RP-5 IPS Overflow	0	238,000	201,712	1,600,000	0	0	0	0	0	0	0	2,039,712	2,500,000
RC	EN11004	RP-2 Screening Project	0	0	0	58,694	332,560	0	0	0	0	0	0	391,254	391,254
			4,570,149	**3,861,380**	**454,162**	**1,658,694**	**332,560**	**0**	**0**	**0**	**1,000,000**	**7,000,000**	**0**	**14,306,796**	**29,317,694**
RC	PA07023	RP2 Alarn Paging System	14,080	0	0	0	0	0	0	0	0	0	0	0	14,080
			14,080	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14,080**
RO	CW08010	4 Wemco Pumps RP2	100,000	0	0	0	0	0	0	0	0	0	0	0	100,000
			100,000	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**100,000**
			4,684,229	**3,861,380**	**454,162**	**1,658,694**	**332,560**	**0**	**0**	**0**	**1,000,000**	**7,000,000**	**0**	**14,306,796**	**29,431,774**

IEUA Ten Year Capital Improvement Plan Projects

Regional Program- RP4

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
RC	CP08008	RP-4 Front Landscape	104,500	84,160	0	0	0	0	0	0	0	0	0	84,160	105,000
RC	EN03023	San Bernardino Ave Pump Stn	5,100,000	3,000,000	0	0	0	0	0	0	0	0	0	3,000,000	13,707,280
RC	EN04011	RP4 Liquid Expansion to 14 mgd	3,094,253	735,000	0	0	0	0	0	0	0	0	0	735,000	39,250,000
RC	EN04029	RP4 Coating Maintena	0	0	0	0	0	0	0	0	0	0	0	0	3,650
RC	EN07009	RP4 Teriary Feric Injection	0	0	0	0	0	0	0	0	0	0	0	0	21,277
RC	EN08008	San Bern Pump Station By-Pass	0	0	0	0	0	0	0	0	0	0	0	0	7,600,000
RC	PL05011	1158/1270 E Reservoir Land Acq		0	0	0	0	0	0	0	0	0	0	0	6,000,101
			8,298,753	**3,819,160**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,819,160**	**66,687,308**
RC	EM05012	RP4 Wireless LAN Bridge	25,000	144,500	0	0	0	0	0	0	0	0	0	144,500	169,500
			25,000	**144,500**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**144,500**	**169,500**
RC	EA08009	RP4 Maint Office Area	0	90,434	0	0	0	0	0	0	0	0	0	90,434	91,213
RC	EN08007	RP4 Gravty Line to SanSvain Ch	0	0	0	0	0	0	0	0	0	0	0	0	5,871,858
			0	**90,434**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**90,434**	**5,963,071**
			8,323,753	**4,054,094**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,054,094**	**72,819,879**

IEUA Ten Year Capital Improvement Plan Projects

Regional Program- RP5

Fund	Type	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
RC	CC	CP08009	RP-5 Lagoon Lndscp		111,350	0	0	0	0	0	0	0	0	0	111,350	131,000
RC	CC	EN02038	Chino Creek Park	55,146	0	0	0	0	0	0	0	0	0	0	0	4,421,860
RC	CC	EN03029	RP5 Renewable Energy Efficincy	4,074,107	1,555,000	0	0	0	0	0	0	0	0	0	1,555,000	22,631,601
RC	CC	EN04033	RP5 Utility Water Pipeline		0	0	0	0	0	0	0	0	0	0	0	731,330
RC	CC	EN05052	RP5 Maint Facility		0	0	0	2,938,895	0	0	0	0	0	0	2,938,895	5,977,790
RC	CC	EN05056	RP-5/RP-2 Capacity Improvements	377,188	297,500	462,825	1,000,000	0	0	1,200,000	10,000,000	5,000,000	0	0	17,960,325	39,615,000
RC	CC	EN05060	RP5 Hot Water Loop Feas Study	6,000	0	0	51,000	59,500	0	0	0	0	0	0	110,500	155,492
RC	CC	EN06020	RP5 System Fac Upgrade & Imprv	430,000	3,145,850	3,744,675	0	0	0	0	0	0	0	0	6,890,525	29,556,648
RC	CC	EN08009	New Operations Laboratory		126,627	0	6,636,964	6,636,963	0	0	0	0	0	0	13,400,554	15,023,927
RC	CC	WR08024	Greenlee Nursery Relocation		0	0	0	0	0	0	0	0	0	0	0	165,000
	CC Total			**4,942,441**	**5,236,327**	**4,207,500**	**7,687,964**	**9,635,358**	**0**	**1,200,000**	**10,000,000**	**5,000,000**	**0**	**0**	**42,967,149**	**118,409,648**
RO	EQ	CW08008	Electric Chain Hoist	1,688	0	0	0	0	0	0	0	0	0	0	0	1,688
RO	EQ	CW08009	Purchase 45 Foot Boom lift	60,000	0	0	0	0	0	0	0	0	0	0	0	60,000
RC	EQ	EB08004	One 3/4 Ton PU Truck		0	0	0	0	0	0	0	0	0	0	0	26,938
RC	EQ	EB08008	RP5 Spare Influent Pump		0	0	0	0	0	0	0	0	0	0	0	123,913
RC	EQ	EB08009	RP2 Influent Pump Spare	0	64,650	0	0	0	0	0	0	0	0	0	64,650	64,650
RO	EQ	OE08001	2 New Trucks for RP-5 Ops		0	0	0	0	0	0	0	0	0	0	0	48,488
RO	EQ	PA08010	Laser Alignment Kit	12,500	0	0	0	0	0	0	0	0	0	0	0	12,500
RC	EQ	PA08026	RP5 DCS UPS Expansion	34,000	0	0	0	0	0	0	0	0	0	0	0	34,000
	EQ Total			**108,188**	**64,650**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**64,650**	**372,177**
RO	RP	CW08007	Rplacement Tools RP2	3,100	0	0	0	0	0	0	0	0	0	0	0	3,100
RC	RP	EB08001	Replace Electric Carts	40,000	0	0	0	0	0	0	0	0	0	0	0	40,000
RC	RP	EB08002	Storage Area Canopy Cover	5,300	0	0	0	0	0	0	0	0	0	0	0	5,300
RC	RP	EB08003	Replace Test Equipment	32,000	0	0	0	0	0	0	0	0	0	0	0	32,000
RC	RP	EB08007	RP5/CCWTP 12KV Meter Testing	0	35,000	0	0	0	0	0	0	0	0	0	35,000	35,000
RC	RP	EM06006	Upgrde Control Panel		0	0	0	0	0	0	0	0	0	0	0	69,930
	RP Total			**80,400**	**35,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**35,000**	**185,330**
	Grand Total			**5,131,029**	**5,335,977**	**4,207,500**	**7,687,964**	**9,635,358**	**0**	**1,200,000**	**10,000,000**	**5,000,000**	**0**	**0**	**43,066,799**	**118,967,155**

IEUA Ten Year Capital Improvement Plan Projects

Regional Program- CCWRP

Fund	Project #	Description	Proj Act 07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Total TYCIP	New Total Project Bdgt
RC	EN02037	CCWRF Chlorination Facility		0	0	0	0	0	0	0	0	0	0	0	1,526,700
RC	EN04030	CCWRP Aeration System Mod.	1,349,502	0	0	0	0	0	0	0	0	0	0	0	5,280,000
RC	EN05061	CCW Trty Flt&Chlrn Tnk Expan	155,000	272,000	0	340,000	1,000,000	0	0	0	0	0	0	1,612,000	13,032,298
RC	EN11001	CCWRP/Prim Clarif Div Str & Sec Clarif	0	0	0	201,000	0	0	0	0	0	0	0	201,000	201,000
RC	EN15001	CCWRF Secondary Clarifier Algae Control	0	0	0	0	0	0	0	249,000	0	0	0	249,000	249,000
RC	OB04003	CCWRF Opert Bldg Landscaping		0	0	0	0	0	0	0	0	0	0	0	10,100
			1,504,502	**272,000**	**0**	**541,000**	**1,000,000**	**0**	**0**	**249,000**	**0**	**0**	**0**	**2,062,000**	**20,299,098**
RC	EB07004	Turbidity Analyzer	7,800	0	0	0	0	0	0	0	0	0	0	0	7,800
RC	EM05011	CCWRP DCS Network Se	6,782	0	0	0	0	0	0	0	0	0	0	0	6,782
RC	OB05003	CCW SCRUBBER H2S MONITORING		0	0	0	0	0	0	0	0	0	0	0	29,850
			14,582	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**44,432**
RC	EB07003	Replace Two Turbidit	6,300	0	0	0	0	0	0	0	0	0	0	0	6,300
RC	EB08005	CC Aeration Mixer	0	67,883	0	0	0	0	0	0	0	0	0	67,883	67,883
RC	EB08006	Auto Sampler Replacement	10,000	0	0	0	0	0	0	0	0	0	0	0	10,000
RC	EN11005	CCWRF Aeration System Replacement	0	0	0	1,000,000	0	0	0	0	0	0	0	1,000,000	1,000,000
RC	PA06015	CCWRF Bar Rake Rebuild	800	0	0	0	0	0	0	0	0	0	0	0	800
RC	PA06016	CCWRF Utility Pump Overhaul	14,000	0	0	0	0	0	0	0	0	0	0	0	14,000
RC	PA06017	CCWRF Scum Well Pump Rebuild	9,000	0	0	0	0	0	0	0		0	0	0	29,774
RC	PA06020	CC Mxd Liquor Pumps	18,000	0	0	0	0	0	0	0		0	0	0	78,409
RC	PA08024	CC DH+ To Ethernet	35,999	0	0	0	0	0	0	0	0	0	0	0	35,999
RC	PA08025	Upgrade GE CEM System	42,000	0	0	0	0	0	0	0	0	0	0	0	42,000
			136,099	**67,883**	**0**	**1,000,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,067,883**	**1,285,165**
			1,655,183	**339,883**	**0**	**1,541,000**	**1,000,000**	**0**	**0**	**249,000**	**0**	**0**	**0**	**3,129,883**	**21,628,695**

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