

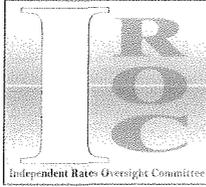
**City of San Diego**

**Independent Rates Oversight Committee**

**Annual Report**

**Fiscal Year 2010**

Issued: September 20, 2011



September 20, 2011

Honorable Mayor Sanders and  
Members of the City Council

In accordance with Section 26.2003(i) of the San Diego Municipal Code, I am pleased to transmit the third annual report of the Independent Rates Oversight Committee (IROC).

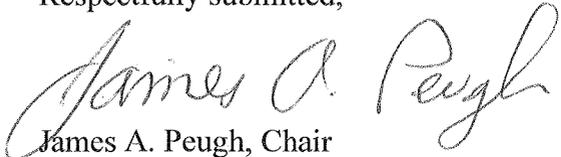
The report summarizes our work for the fiscal year ended June 30, 2010, and includes our observations and recommendations with respect to the operations, investments and planning activities of the City's Public Utilities Department.

On behalf of my colleagues on IROC, I want to express our appreciation for the opportunity to serve the ratepayers. We hope that this report will contribute to a respectful dialogue on the continuing challenges we face as a region in ensuring a safe and reliable water supply, sound environmental management, reasonable rates, wise investments, efficient operations, a knowledgeable public, and a sustainable water and wastewater system.

Implementing IROC's role adds a layer of inquiry and accountability to an already challenged staff, and to that end, IROC appreciates the cooperation, patience, and professionalism of the Public Utilities Department in its relationship with IROC.

In our last report we mentioned with regret that Barry Newman, who worked with Mayor Sanders on the establishment of and helped lead IROC, retired from IROC for health reasons. We are sorry to have to mention that Barry passed away in the last year. I hope that IROC is living up to his expectations for us.

Respectfully submitted,

  
James A. Peugh, Chair  
Independent Rates Oversight Committee

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## **IROC OVERVIEW AND ITS MEMBERS:**

IROC is an independent, non-compensated, advisory body composed of eleven members, nominated by the Mayor and confirmed by the City Council, representing all ratepayer classes and a set of defined professional disciplines. Its officers include a chair, vice chair, and chairs of three subcommittees: (1) Finance; (2) Environmental and Technical; and (3) Public Outreach, Education and Customer Service.

IROC serves as an official advisory body to the Mayor and City Council on policy issues relating to the oversight of the City of San Diego's Public Utilities Department operations including, but not limited to, rates, resource management, planned expenditures, capital improvements, performance, customer satisfaction, public awareness and outreach, water and wastewater related environmental issues, and high quality, reliable, and affordable services. It is the vision of IROC that the City of San Diego's water and wastewater utility services are provided reliably, sustainably, and in a cost efficient manner.

The primary mission of the Public Utilities Department is to ensure that high quality, reliable and sustainable water resources and wastewater services are achieved for the benefit of the ratepayers and citizens served. The mission also includes cost-efficiency, and that costs are allocated in an equitable manner among ratepayers groups. IROC seeks to verify that the mission is fully achieved.

As indicated in the Municipal Code Ordinance establishing IROC (See appendix 1), IROC's role is not that of an auditor or list checker, but more broadly as an independent overseer of the City's water and wastewater services, on behalf of the ratepayers. To accomplish this, IROC believes that it must review and assess not only the current operations of the Utilities, but also the medium and long-term investment plans, and the planning process itself. IROC believes that ratepayers are best served by an oversight body which views operations and capital investments in the context of annual budgets and expenditures, but also in the context of avoided costs.

### **IROC Members and Officers:**

Jim Peugh, Chair	Environmental Professional
Andrew Hollingworth, Vice Chair	Audit/Accounting Professional
Don Billings	Finance/Municipal Finance Professional
Tony Collins	Multi-Family Residential Ratepayer
Christopher Dull	Construction Management Professional
Jack Kubota	Engineering Professional
Colin H. Murray	Law Professional (Appointed Nov. 2010)
Irene Stallard-Rodriguez	Single-Family Residential Ratepayer
Todd Webster	Science Professional
Gail Welch	Commercial and Industrial Ratepayer

### **Ex-Officio Members:**

Ken Williams	SDCWA City 10 Representative
Yen Tu	SDCWA City 10, Alternate
August Caires	Metro Wastewater JPA Representative
Mark Robak	Metro Wastewater JPA, Alternate

## **IMPORTANT NOTE TO READERS OF THIS REPORT:**

The information, recommendations and conclusions stated in this Report are the opinion of IROC as an independent advisory committee and should not be construed as an audit, formal financial review, or as the official position of the City of San Diego.

## **FY2010 TOPICS OF DISCUSSION:**

The following are some of the primary topics reviewed during the reporting period. It should be noted that even though this report covers the period of July 1, 2009 through June 30, 2010, some of IROC's statements in this report include information that came to light after the end of that reporting period.

Department Consolidation of the water and wastewater departments into a single Public Utilities Department was a frequent topic of discussion as the new departmental organizational structure will set the foundation for management and its employees' ability to effectively meet its service mission.

Water Conservation and related efforts were discussed at many IROC meetings during the reporting period. The discussions included: tiered rates; public education; water conservation status reports; and the enforcement effort to achieve objectives. Over the reporting period, the water use reduction target was 8%, and an impressive 11% was achieved.

Indirect Potable Reuse demonstration project was a frequent topic. During the year, the program matured from a working concept to the RFP; consultant selection; and contract approval by the City Council. IROC supported the awarding of the contract to CDM and the transfer of \$17 million for the project. The award of the contract came after the reporting period. IROC continues to be concerned that planning for moving forward with potable water reuse after the demonstration project is not moving aggressively enough for this critical project. Since the reporting period, the Water Recycling Study has made significant progress toward long term planning, but mid-term planning needs to begin soon.

Capital Improvement Program Planning for both utilities was a frequent topic of discussion. Discussions included: concern about delays in implementation of CIP projects; use of funds compared against rate cases; adequacy of the level of infrastructure investment; adequacy of fiscal controls; and the lack of a desired system assets management and condition assessments to measure the adequacy of the level of investment.

Citywide CIP Prioritization. IROC participated in the City prescribed CIP prioritization effort, but found it ineffective for the needs of an Enterprise Funded Department. The Department had to develop relevant sub-criteria to help make the criteria work for their prioritization.

Sewage Spills and Water Pipe Breaks are routinely reported and described during the staff reports portions of IROC meetings. The reduction in wastewater spills in recent

years is reported to have occurred because of a combination of CCTV, improved scheduling, disciplined and comprehensive sewer main cleaning, lining, replacement, and securing manhole covers. Water pipe breaks are reported to be largely a result of pipe that has long exceeded its expected life, mostly cast iron, but asbestos/concrete pipe is also a growing concern.

The Water and Wastewater Cost of Service Studies and Rate Recalibrations were addressed several times during the year. They provide an interesting array of potentially conflicting drivers. It is essential that the water and wastewater systems have sufficient funds for investment and maintenance so that they will provide adequate and reliable service for a reasonable cost, while sufficiently encouraging conservation and fairly allocating costs among the ratepayers.

The Recycled Water Cost of Service study was a significant topic of discussion. Currently, recycled water (purple pipe) is being sold at a cost that is aggressively discounted. IROC is looking forward to the results of the Cost of Service Study to assess whether purple pipe water rates should be raised. This could result in some reduction in the cost of tap water. However, it is understood that recycled water users made infrastructure investments to access recycled water, so the rate of implementation of price adjustments should be sensitive to that.

The Waiver to Secondary Treatment for the Point Loma Wastewater Treatment Plant was in the process of being approved during the fiscal year. IROC asked to be kept in the loop during the approval process, including steps involving the State Coastal Commission, the Regional Water Quality Control Board, and the Environmental Protection Agency. The final approval was granted to the City during FY 2011.

The Bid to Goal Program was presented to IROC. The Office of the City Auditor also presented the audit of the Bid to Goal Program. IROC supported the Bid to Goal Program as members feel that a well constructed employee incentive program is important for identifying means to improve performance and reducing costs.

The status of the Dedicated Reserve for Efficiency and Savings (DRES) was presented to IROC twice during the year. This included an internal discussion of whether the savings should be used to offset future rate increases or be reinvested in the system's infrastructure at a time when the construction market is comparatively affordable. IROC voted to support a pass-through rate increase and to preserve DRES funds to offset future increases.

The projected impacts of Employee Pensions was presented to IROC, including a presentation of the actuarial assumptions embedded in the pension obligation projections.

The FY2011 Budget for the Public Utilities Department was presented to and discussed by IROC. IROC voted to support the Proposed Budget.

The Small and Local Business Contract Program was presented to IROC. The discussion included concerns from IROC about how much this program costs the ratepayers and

whether it is appropriate for the cost differential to be covered by water and sewer funds or the general fund.

The Energy Recovery Programs that extract methane from the landfill and from the Point Loma Wastewater Processing facilities and the plans for expansion were presented to IROC. Discussion included the cost savings for the department and the reduction of Green House Gases.

The State Revolving Fund loan for the Otay Water Treatment Plant Upgrade and Expansion was presented to and discussed with IROC. IROC voted to support the application in FY11.

The Department's Strategic Plan development was discussed with IROC and three IROC members participated in the workshops in which the plan was developed.

The Water Facilities Master Plan was presented to IROC. It is directed at satisfying water needs until 2030.

The Office of the City Auditor was tasked with a focused audit as directed by IROC. The scope of that audit was determined after multiple interactions between City Auditor staff and IROC.

## **KEY IROC RECOMMENDATIONS:**

The recommendations summarized in this section are discussed more fully under the appropriate subcommittee.

### **1. WATER PURIFICATION DEMONSTRATION PROJECT, PUBLIC OUTREACH**

IROC recommends that the public outreach and education effort related to the Demonstration Project be continued. The effort must remain on education vs. promotion to assure credibility. A well educated public will be essential for the City to move toward a sustainable water future.

### **2. WATER AND WASTEWATER RELATED EDUCATION**

We recommend that serious efforts be initiated to educate the public and the media about the costs of operation and infrastructure for our water and wastewater systems. The public and decision makers need to have the information required for rational decisions when considering future rate cases so that they will understand the impacts of their decisions in short, intermediate, and long terms.

### **3. NON-POTABLE USE (PURPLE PIPE SYSTEM)**

IROC recognizes that one of the biggest challenges for the City is to decrease reliance on imported water, and to create a local sustainable water supply for the region. During the past year, one of the City's responses to creating a sustainable water supply has been through initiation of the Water Purification Demonstration Project. At the same time, the City's budgeting for non-potable purple pipe expansions has virtually disappeared leaving businesses, parks and golf courses with no options other than conservation or to use potable water for industrial and irrigation purposes.

Currently, the City's purple pipe system and reclaimed water production is underutilized, and the City continues to pay increasingly higher prices to purchase potable water from its suppliers. With the timeline for full implementation of the Water Purification Demonstration Project (assuming full development is approved by regulatory and other bodies) nearly 10 years or more away, IROC would like to better understand if it is appropriate to resume expansion of non potable purple pipe to offset the use of potable water supplies. The purple pipe expansion analyses could entail: grants; stimulus funds; or partnerships/cost sharing with commercial stakeholders. IROC recommends the Department provide a briefing on tradeoffs related to this subject at a future IROC meeting.

### **4. LARGE SCALE POTABLE REUSE**

IROC recommends that the City begin planning for funding the implementation of potable reuse based on the results of the Demonstration Project as soon as possible. Waiting for the approval of the Demonstration Project before beginning that process will delay the availability of that safe and sustainable water source - perhaps for years.

## 5. PLANNING FOR OUR POST-WAIVER WATER AND WASTEWATER FUTURE

IROC recommends that the City accelerate planning for our future water and wastewater systems. Soon results from the Recycled Water Study and the initial results of the Water Purification Demonstration Project will be available. These will provide a sufficient basis to begin planning and engineering analysis and to identify funding needs. Decisions on our water and wastewater future that are made without the benefit of mid and long range planning are likely to preclude future opportunities and/or lead to large future stranded investments.

## 6. DEVELOPING A MORE EFFECTIVE RATE STRUCTURE

A well thought out Rate Structure should support water conservation, a financially sound system, an equitable and legally defensible assignment of costs among ratepayers, and support sustainable funding for infrastructure improvements and operations. IROC's assessment is that the current structure is not as effective as it should be for promoting conservation, may not fairly assign costs, and seems marginal with respect to supporting the system in the face of varying water availability. Adjustment of the allotment of charges between fixed charges and consumption based charges and an equitable charge for purple pipe water should be reconsidered.

## 7. EMERGENCY/DISASTER RISKS

In previous years, IROC has recommended a formal study to identify system risks associated with low probability/high impact system failures, natural disasters, or sabotage, a system for quantifying those risks, estimated costs to reduce risks, and scenario analysis of the potential impacts of not addressing the identified risks. We contend that it is still critically important to undertake such an effort to help guide long range planning of infrastructure, equipment, and staffing.

## 8. EXERCISING AND MONITORING OF THE CONDITION OF WATER DISTRIBUTION VALVES

IROC recommends that the Department consider revising their maintenance protocol for water distribution valves. Currently the valves are tested once every five years to assess whether the valve shaft can be moved at all. During a discussion at an IROC meeting, department management stated that only 0.1% of the valves fail the test. The national standard is testing every year to see if the valve will actually close, though the practice of other water agencies vary widely in terms of testing and maintaining their valves. A significant percentage of our valves would probably fail that test.

Also when closure is attempted but is unsuccessful, that event should be logged. We recommend that the Department have a map identifying all valves that have been found to not work either from a routine test or a failed attempt to close it. Such a map would reduce the wasted time spent trying to find a valve that will shut off a breakage and would help guide maintenance and replacement planning.

#### 9. LACK OF A STANDARD FOR SYSTEM CONDITION

The CIP, rates, and investment decisions are made without a clear goal of what the City intends the condition of the system to be. As a result there is no way to measure whether the system is adequate and whether we are investing adequately or in the most effective manner. An appropriate standard might be stated in terms of “what percentage of the system has exceeded its anticipated lifespan,” or some other agreed upon measurement. IROC recommends that a system condition standard be developed and adopted for the water and wastewater systems and it be used in planning for future investment in replacement, upgrades, and maintenance.

#### 10. FINANCIAL TRANSPARENCY AND REPORTING

IROC recommends that financial transparency be improved. The apparent lack of transparency hinders IROC from fully accomplishing its mission in determining whether funds are used appropriately and whether rates are appropriate.

#### 11. CAPITAL IMPROVEMENT PROGRAM, MUNICIPAL WASTEWATER FUND

Elements of the CIP appear to be up to two years behind schedule and significantly under budget. IROC appreciates that the Department has been successful at using its CIP fund very efficiently and substantially reducing wastewater spills through its CIP investments over the last 10 years. But IROC is troubled with the schedule delay, especially as construction costs could increase before the planned projects are completed resulting in more cost to ratepayers. IROC recommends that a recovery plan be formulated and implemented to get back on schedule.

#### 12. CAPITAL IMPROVEMENT PROGRAM, WATER FUND

The Water CIP appears to be close to schedule and for about 11% less than budgeted. It is difficult to resolve overruns, delays, increases in scope, etc. with current reporting. IROC recommends that the Department report, on a quarterly basis, current expenditures vs. the baseline budget for all water CIP projects so IROC and management can better keep track of the progress of this program.

#### 13. WATER FUND RATES, REVENUES, EXPENSES, AND NET ASSETS

Questions have been raised about whether the department has assets and cash above its anticipated needs. IROC recommends that the department provide a long term cash flow forecast including inflation rates, costs, and schedules for the Department and its CIP program.

#### 14. RATE SETTING PROCESS

IROC is fully aware that the rate setting process is a political process. However, we feel that the political decisions could be better made if the decision makers had the benefit of middle and long term engineering and cost information produced through politics-free analysis. In IROC’s view, the ratepayers are best served by an honest and professional assessment of the costs of planning for, building, operating, and maintaining the water and wastewater systems in an optimal way. This view is based on, among other things, the conviction that a cost avoided today is not a cost avoided; indeed, a cost avoided or

deferred today very likely results in costs being higher in the longer run. San Diego's recent history tends to support this conviction.

As a result we recommend that a serious professional attempt be made to assess what operational, maintenance, and infrastructure investment would be optimal for the sustainability and total costs of the system and services in the middle and long term. Clearly such an analysis will have many unknowns that will influence its precision. It is essential that the uncertainties be acknowledged and incorporated into the analysis to assess the precision and therefore the utility of the results.

## **LOOKING AHEAD: KEY ISSUES FOR 2011**

In addition to the issues identified in FY2010, IROC anticipates the following issues will emerge in importance in FY2011.

### Managed Competition:

The Mayor recently announced that portions of the Public Utilities customer service system will be competed through the Managed Competition Program. While this service scope includes less than 60 employees out of a 1,600 person Department, IROC is concerned this is the major interface between the ratepayers and the Department. Poor or ineffective performance in customer service can have a serious impact on customers and can degrade the public's opinion of the entire Department. IROC is also concerned about the timing of the transition to the new SAP software in conjunction with the transition to a contract staff for Customer Service. IROC intends to follow this process closely as it moves forward.

### Human Resources Management:

The City of San Diego, like most local governments, is going through difficult financial times due to the economic recession. While IROC understands the need to cut costs wisely to minimize future rate increases, it is still important for the Department to provide adequate benefits to its employees in order to attract and retain a skilled and experienced workforce for years to come. This aspect becomes more important as government reduces staffing levels.

IROC has observed significant losses in key personnel in the Public Utilities Department. Many of these losses appear to be related to employees wishing to lock-in benefits in anticipation that salary, retirement, health care, etc. that will be reduced in the near future. Some have retired earlier than planned, while others have taken positions with other agencies. The performance and the efficiency of the Department depend heavily on a competent and experienced work force. We have inquired and have been given occasional isolated reports, but have not seen an ongoing and formal analysis of retention and recruitment for the department. IROC intends to inquire about whether current and past information on employee retention and recruitment information should be maintained on-line for the use of decision makers, IROC, the media, and the public.

### Office of City Auditor (OCA) –Agreed-Upon Procedures Audit on behalf of IROC:

During FY2010, the Department made funding available to the OCA to conduct a financial audit on behalf of IROC. IROC was provided a list of 9 distinct audit options and IROC voted to request that the audit cover the area of CIP performance and effectiveness. The results of that audit could be shared with IROC as early as September 2011.

## **DISCUSSION OF ISSUES BY THE SUBCOMMITTEES**

### **Public Outreach, Education and Customer Services Subcommittee:**

#### **Focus of Subcommittee**

The major public outreach items of focus in FY10 were:

- 1) Water conservation;
- 2) Water purification demonstration project; and
- 3) Enhancing the public's understanding of reasons for water rate increases.

#### **Members**

Subcommittee members are: Gail Welch (Chair), Jack Kubota, Christopher Dull, Irene Stallard-Rodriguez, Jim Peugh (Ex-Officio) and Andy Hollingworth (Ex-Officio).

#### **Discussions of key issues**

Specifically in FY10, the subcommittee's oversight activities were focused on the following:

1. Reviewed the Public Utilities Department Employee Opinion Survey Results.
2. Discussed promotion of the City of San Diego Fraud Hotline and Public Utility Department plan for communicating the purpose and phone number to all Department employees and the public.
3. Emphasized the importance for the Department's communications plan to educate the public on the various drivers/reasons for water and wastewater rate increases.
4. Reviewed the Water Research Foundation's Study of Water Conservation, Customer Behavior and Effective Communication and relevance to the Department's efforts.
5. Received updates from Department PIO (Public Information Officer) Staff and an overview of the Department's PIO efforts and a benchmark comparison of resources with other Agencies. Five PIO staff support these areas: Water Operations, Long Range Planning & Water Resources, Recycled Water, Customer Support and Wastewater Operations. The City indicated that their staff of 5 ranks roughly in the middle of the 17 listed Agencies and compared favorably to the East Bay MUD staff of 10 which supports a similar function and service size of 1,300,000 people.
6. Reviewed Goals developed by the Department's Executive Team for FY10 in the areas of customer outreach, public outreach and education campaigns, website and intranet development and enhancement, collateral materials development, and stakeholder/policymaker outreach and communications. Sample goals include, to: a) develop and launch a three-year, regional public outreach and education plan for the indirect potable reuse/reservoir augmentation demonstration project, b) update and create new fact sheets on initiatives such as recycled water, water reliability and groundwater projects; c) plan/develop tours for policymakers; and d) launch the Spring Water Conservation campaign.
7. Discussed most cost effective outreach strategies which include utilizing the department web site (which IROC commends as being current and comprehensive) and distributing "Fact Sheets" out to the Public, including the local newspapers so

- that data being relayed to the Public is as factual as possible.
8. Reviewed Water Conservation RFP, and IROC members participated on the Department's RFP Evaluation Team leading to contract award.
  9. Met with the staff overseeing the Water Purification Demonstration Project and the consultant staff handling public outreach in accordance with the project's communications plan. The broad base of support for the project consists of an alliance of environmentalists, engineering professionals, labor leaders and business officials. This group is comprised of the Building Managers Association, San Diego County Taxpayers Association, San Diego Labor Council, San Diego Chamber of Commerce, Surfrider Foundation, San Diego Coastkeeper Organization and the Audubon Society. The outreach effort is making significant progress in introducing the project to the public, working with local community leaders who are assisting in championing the cause, and educating the various public sectors via community forums, etc. on the projects goals and objectives.

### **FY11 Goals for Public Outreach to Promote Program Results**

The Public Utilities Department will continue to face challenges associated with quality, sustainability and cost of services to ratepayers. These issues must be adequately communicated to ratepayers by the Utilities and by the policy makers overseeing the Water and Wastewater Department.

#### **Water Conservation**

The City has been very successful in creating a public outreach campaign for water conservation through the “**No Time to Waste, No Water to Waste**” campaign, which recently completed a competitive procurement process for the next phase of the City's water conservation focus. IROC will continue to monitor the water usage results and work with the department to address the continued challenges of informing and engaging the public in water conservation.

#### **Water Purification Demonstration Project**

IROC believes that the Water Purification Demonstration Project is crucial to developing regional water sustainability in San Diego. Furthermore, the project will reduce our significant dependence on imported water and the associated inflationary pass-through costs of which are out of the City's control. It is imperative that the Department continue its effort to promote an effective public outreach campaign to ensure stakeholders become fully engaged in understanding the issues and opportunities to best ensure the quality and sustainability of San Diego's essential water resources at a reasonable and affordable cost to all water system ratepayers. IROC will continue to actively monitor the comprehensive community education and outreach efforts that are being conducted by the contractor and the associated costs to ensure funds are adequately and appropriated utilized.

#### **Proactive Public Messaging Campaign Aimed at Educating the Public**

IROC recognizes the need for effective and accurate public information to ensure the Public is educated on the water and wastewater cost drivers. IROC encourages the Department to continue to focus efforts in a proactive manner to promote accurate public

information through newspapers, the City Website, Fact Sheets and PIO staff communications. In addition, IROC will continue to monitor the results of ongoing water and recycled water rate studies to ensure there are timely and appropriate outreach efforts to the affected stakeholder groups.

## **Environmental & Technical Subcommittee:**

### **Focus of Subcommittee**

The major Environmental & Technical items of focus in FY10 were:

- 1) Water reliability and quality;
- 2) Responsible Stewardship of the environment; and
- 3) Effective condition assessment and assets management.

### **Members**

Subcommittee Members are: Todd Webster (Chair), Jack Kubota, Gail Welch, Jim Peugh (Ex-Officio) and Andy Hollingworth (Ex-Officio).

### **Discussions of key issues**

The focus of the subcommittee is to understand and evaluate those environmental and technical issues directly affecting the City of San Diego Public Utilities Department as they relate to water and wastewater rates. Throughout the year, the subcommittee reviewed a number of issues, including:

- Water Purification Demonstration Project;
- Strategic planning for the Pt. Loma discharge permit - waiver to Secondary Treatment;
- Emergency/Disaster Preparedness;
- Submetering of Multi Family Units;
- Advanced Metering Infrastructure Project;
- Exercising and monitoring condition of water distribution valves;
- Public Utilities Department Strategic Planning, Performance Metrics and Measures;
- Water Main Breaks and Sewage Spills;
- County Water Authority Desalinization Projects;
- CIP Project Master Planning and Prioritization;
- Assets Management & Condition Assessment;

Each of these issues is further evaluated and detailed in this report based on the subcommittee's findings.

### *Water Purification Demonstration Project*

During the past year, an engineering firm was hired to design and implement the Water Purification Demonstration Project. The design was finalized and implementation of the

pilot system began in early 2011. A number of concerns have been raised with the Public Utilities Department regarding the implementation of the project and how it could affect future rates. One issue is the ability of the demonstrated equipment to be reasonably scaled up so that multiple manufacturers will be able to bid at the full-scale level. The subcommittee has been assured that equipment is scalable and the use of specific vendor's equipment at the pilot-scale will not jeopardize the ability for competitive bids at the full-scale. However, concerns that the Department of Public Health will efficiently permit a system that does not match the pilot demonstration still remain. If the same equipment is required, competitive bidding would not be possible and the City could be forced into paying a premium to implement the system.

An additional concern is that sufficient planning has not gone into what needs to be done to move ahead with an operational Indirect Potable Reuse (IPR) system after the demonstration program receives agency approval. The City has indicated that it will not invest funding toward the implementation of IPR until after the demonstration system has been fully approved by the regulatory agencies. IROC is concerned that this will result in delayed action on the full-scale plant in planning, design, engineering, acquisition of rights of way, identification of funds, or submittal of grant applications. This will delay the availability of water from any full-scale IPR water for several years, yet the subcommittee believes that the City will likely need the purified water sooner than it is available. As a potential significant part of the City's future water portfolio, this subcommittee continues to urge the City to educate and prepare decision makers on the necessary steps to implement the full-scale IPR project

#### *Strategic planning for the Pt. Loma Discharge Permit - Waiver to Secondary Treatment*

The subcommittee believes that the City understands the importance of the potential waiver position and the stark reality that an additional waiver may not be issued in 2015. Still, we would like to see a 5, 10, and 15 year detailed plan how the City of San Diego will meet this future challenge. Now is not the time to be complacent. If the next waiver is denied in approximately 2015, the City of San Diego would likely have another 5-15 yrs to implement a strategy-solution to upgrade the Pt. Loma plant. Significant planning is required to assess how future rate cases may be affected by the lack of the waiver. Much is at stake not to be engaged in 2010-11, instead waiting until 2015. We are encouraged that the Recycled Water Study, the IPR feasibility Study, and the System Condition Studies will be of great value for providing a range of possibilities for the post 2015 planning. Still, planning now is required so that these and other information sources will not miss critical information that will be needed for the planning for the future.

#### *Emergency/Disaster Preparedness*

A Seismic Vulnerability Assessment was conducted in 2001 and system improvements were made to reduce vulnerability in the FY08-FY11 Rate Case and through maintenance. However, IROC remains concerned that the wastewater system lacks adequate redundancy or flexibility so that a single failure could cripple all, or most of the system. The best examples are the Point Loma Wastewater Treatment Plant (PLWTP)

and Pump Station # 2. As described in prior year IROC Reports, the primary likely threats are breakdowns due to normal breakage or breakage due to extreme weather, earthquakes, and terrorism. Pump Station # 2 must remain operational to provide wastewater to the PLWTP. Although it has several back-up pumps, if its operations were affected by an emergency, there would be no way to get the region's wastewater to the treatment plant for an extended period of time.

For the water system, in the event of a strong earthquake it is likely that the distribution system pipes will fail in parts of the City, increasing the risk of uncontrolled urban fires. Such risks should again be assessed and considered in identifying needs when setting water rates. The Water Department conducted a Seismic Vulnerability Assessment in 2001. As part of this assessment, the department addressed the risk of fire following an earthquake.

However, the subcommittee recommends a new study of system risk, which will include methods to reduce risk, and the associated costs to implement those methods. We urge that such a study specifically target the risk associated with the condition of the water distribution system, and the level of investment needed to minimize this risk. Based on such analysis, an accurate assessment for implementation of the future mitigation needs into future rate cases can be made. The City has embarked on a program (Condition Assessment Study) that will assess the condition of the water and wastewater system including, treatment facilities, pump stations, pipes, reservoirs, and dams which could contribute to a new system risk analysis.

#### *Submetering of Multi Family Units*

The Water Utility currently has 30,000 plus multi-family connections, with almost half of the units in the City without meters resulting in water users unaware of their own water use, and without financial incentive to curb water use. Sub-metering is essential in the City of San Diego that continually preaches "No time to waste, no water to waste." Such an action would significantly minimize water waste in a time when every drop is needed. The initiative of the Natural Resources Committee of the City Council to pursue this issue is very timely and this subcommittee urges the implementation of the sub-metering ordinance.

#### *Advanced Metering Infrastructure Project*

This past year, the City had planned to implement the first phase of an Advanced Metering Infrastructure (AMI) System.<sup>1</sup> It includes 27,000 meters, about 10% of the water meters. It is focused on downtown, surrounding areas, and difficult to read meters,

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<sup>1</sup> In Fiscal Year 2010, the Department prioritized deployment of a new ERP Customer Care Solutions (CSS) technology that in conjunction with the future deployment of Advanced Metering Infrastructure provides enhanced benefits to the City's customers. The decision to postpone the deployment of the AMI technology was due to the recommendations of an expert in the utilities community that both the CSS and AMI systems not be deployed concurrently.

using a fixed network radio system for communication. In addition to the complete modernization of the meter replacement, maintenance, and reading system, the technology will result in the real-time data collection to complement other control systems for operation of the water system. The first phase will cost \$15,000,000 and the system is expected to have a payback period of 4.5 years based on more accurate meter reads and reducing the cost of reading meters and processing the results. It will also have a significant value for helping customers to reduce their consumption, to improve enforcement of water conservation regulations, and to provide early identification of leaks. After the initial installation, all new meters and replacements will be AMI meters. The subcommittee has concerns that leak sensors will not be integrated into this AMI system, as they are in other AMI systems. Still, the overall value of the implementation of AMI to the ratepayers appears beneficial in terms of minimizing future rate increases.

#### *Exercising and Monitoring Condition of Water Distribution Valves*

This subcommittee has seen an effort of assessment, maintenance, and replacement in the water distribution system, but additional effort is still required with critical valves within the City. We have expressed concerns that distribution system valves have not been a focus of the program, even though their inoperability can exacerbate the impacts of water break impacts and can significantly delay repair and restoration of service.

The Water Utility tests each valve once every five years to see if the valves will turn, or if they are frozen. Staff stated that only about 0.1% fail this test. However, when needed a large and unknown portion of valves cannot be shutoff. In addition, it does not record which valves cannot be closed when attempted during routine activity. The national standard is to test each distribution system valve each year. This testing consists in fully operating each valve to see if it will close. IROC recommends that a formal analysis be conducted to identify the most appropriate protocol for testing and recording data on valve operation for our system.

Through the results of the Condition Assessment Study, future plans, priorities, and projects will be assessed. It is anticipated that this Assessment will identify operational issues and system deficiencies, provide guidance for informed investment priorities, improve reliability, and improve regulatory compliance. This subcommittee has urged a study be conducted to identify the ages and condition of the components of the distribution system in a representative area, including the pipes, hydrants, valves, and pumps. The goal would be to help identify the level of replacement and maintenance for the system that would be optimum for long-term cost effectiveness and for best quality of service. The subcommittee has expressed that the results should heavily effect the funding decisions made in future rate cases.

#### *Public Utilities Department Strategic Planning Performance Metrics and Measures*

The City has identified a set of performance metrics for the FY2011 Public Utilities Strategic Plan that allows a clear analysis of the performance of the systems. This subcommittee reviewed and agreed with the majority of the metrics defined, but have requested that some additions be made and some of the subcategories be redefined. We want to be certain that the measurements and analysis are substantial enough to

confirm/deny whether enough investment in upgrading, replacement, and proactive maintenance is occurring. Ultimately, this will have a determining effect as to the need for future rate cases to carry out such investments,

#### *Wastewater Pipe Breaks and Sewage Spills*

Water and Wastewater systems personnel work well to minimize breaks and spills. The City's wastewater system includes 3000 miles of pipe and 75 pump stations. There are 16 to 20 maintenance crews working within the City. The volume of spills has been reduced more than 90% since 2000. The reasons for the improved occurrence of spills and breaks are efforts such as: televising pipelines to identify problems; replacement or lining 300 miles of mains (currently going from 45 to 60 miles per year); improving access to difficult manholes; cleaning all mains on a strategic maintenance schedule; improved nozzles with 3000 psi cleaning pressure; improved staff training; locating and securing all manhole covers. The City proactively uses the Computer Maintenance Management System (CMMS) and the Food Establishment Wastewater Discharge (FEWD) program. The use of such programs is supported by this subcommittee as a tool to maximize crew efficiency while ultimately minimizing breaks and spills.

Still, until the Condition Assessment Study findings are realized, it is still not clear that there is adequate investment in upgrading, replacement, and proactive maintenance for efficient long-term operation of the system.

#### *County Water Authority Desalination Projects*

The San Diego County Water Authority (SDCWA) has begun discussions with the City of Carlsbad regarding utilizing water generated from its future desalination project. As the City of San Diego is the largest customer to SDCWA, questions have been raised about the technical feasibility of transporting this water to the SDCWA pipelines and the cost associated with such transportation. To what degree the citizens of San Diego will be required to pay for such conveyance is not well defined. On a more technical note, the subcommittee also has concerns regarding the quality of the water from the desalination plant potentially mixing with water conveyed from the Twin Oaks Treatment Plant. The level of additional chlorination that may be needed is still being investigated and the development of potential disinfection by-products needs to be addressed. The answers to such questions may ultimately result in an eventual pass through of increased rates to the City of San Diego that will need to be addressed.

#### *CIP Project Master Planning and Prioritization*

The City Council has adopted a set of criteria for ranking CIP projects City-wide. The Department has identified numerous sub-criteria to make the City's criteria more meaningful for public utility use, allowing for better quantification and comparison of the priority, costs, and benefits of each project. The subcommittee agreed with the analysis and believes that it will lead to reasonable decisions. The subcommittee has suggested that the City Council's list of criteria for evaluating Capital Improvement Projects should be changed to one that is more appropriate for prioritizing projects for Public Utility

projects. The Department's work on defining and weighing the various sub-criteria might be useful for such a revision.

#### *Assets Management/Condition Assessment*

The City is under contract to develop a "Water Facilities Master Plan" that will produce critical information to identify infrastructure needs. Ultimately, this will lead to a Capital Improvement Program for the period of 2012 to 2032. This long-term analysis will detail the total financial burden the water system will face. There are seven major tasks outlined in the contract and the first one is "Condition Assessment" This task is broad and all-encompassing, with a report completion in FY2011. This committee urges that this system condition data be designed, collected and interpreted in a manner to provide the full IROC the necessary information required to identify the optimum level of investment for the City's infrastructure needs.

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### **Finance Subcommittee:**

#### **Focus of Subcommittee**

The major Finance items of focus in FY10 were:

- 1) Financial Transparency and Reporting;
- 2) Capital Improvements Program; and
- 3) Rates, Revenues, Expenses and Net Assets

#### **Members**

Subcommittee members are: Andy Hollingworth (Subcommittee Chair), Don Billings, Gail Welch and Jim Peugh (Ex-Officio).

#### **Discussions of Key Issues**

The role of the subcommittee is to assist IROC with oversight of the Public Utilities Department (Department) water and sewer rates, financial management, and budgets, to ensure services are provided in the most efficient and affordable manner possible. The subcommittee also tracks and reviews the use of rate proceeds and project schedules to advance the capital improvement program related to the rate packages adopted by the City Council. The subcommittee performs its work in a manner which considers and balances the interests of both the Department and the rate payers with the goal that a high level of public confidence in utility services be maintained by ensuring that services are provided, and investments made, in the most cost efficient and transparent way possible at the most affordable cost to the rate payers.

### **2010 FINANCE SUBCOMMITTEE OVERSIGHT ACTIVITIES AND ISSUES**

During FY2010, the Finance Subcommittee conducted monthly meetings and evaluated special studies in pursuit of its mission in conjunction with the full IROC. These included monthly reviews of the Department's operational finances, and a quarterly review of the capital improvement program progress and costs. The subcommittee also evaluated the causes for the Metropolitan Water District (MWD) and San Diego County

Water Authority (CWA) pass-through water rate increases and held two special meetings with the full IROC to seek explanations from the MWD and CWA CFOs, and the CWA General Counsel.

During FY2010 the Subcommittee addressed the following areas in the course of its oversight activities:

### **Financial and Capital Improvement Program (CIP) Reporting**

In order to fulfill IROC's mission to review and analyze finances and efficiency measures, as well as to advise the City regarding budgets, project priorities and financial management of the Public Utilities Department, the Finance Subcommittee believes that adequate, accurate and timely financial and CIP reporting is critical. Therefore, in June 2009 the Finance Subcommittee requested the following financial reports be submitted to the subcommittee on a regular basis to provide adequate reporting for operational finances and the CIP program to ensure that water and sewer rates were sufficient to fund necessary operational and capital costs, but not excessive.

- Monthly actual expenditures versus budget reports for year-to-date and forecasted revenues and expenditures for the water and wastewater funds -- with explanations of significant variances. This report would help determine whether current year water and sewer rate structures are sufficient to fund current year expenditures, but not excessive.
- A monthly reserve balance and analysis report for all Departmental reserve funds. This report would help determine the adequacy of reserves and whether they are increasing or being depleted, which is another indicator of the adequacy of current water and sewer rate structures.
- A quarterly report of Full Time Equivalent position transfers, service level agreements, and overhead charges from the non-enterprise funds to the Department water, sewer and bond funds. This would help determine whether cost shifting is occurring between the General Fund and the Enterprise Funds.
- Capital Improvement Program Actual versus Baseline schedule; and Actual versus Budget expenditures reporting at the project level.

These reports are meant to ensure that rates are neither too high (resulting in a fund surplus), nor too low (resulting in a fund deficit), and sufficient to cover current and projected operating and capital expenses. The reporting was also meant to ensure that funds were not being shifted to the General Fund from the Utility Enterprise Funds via position transfers or overhead charges, beyond the cost of legitimate services. Such a situation would result in water and sewer rates subsidizing general government operations, which should be funded from the General Fund. Finally, they were meant to ensure that the CIP program is on schedule and on budget, as program delays can result in major deficits.

IROC encountered several challenges in Department financial and CIP reporting including receiving reports on a consistent basis, completeness of financial reports, and comprehensive reports on FTE position transfers and new overhead charges. These

reporting issues appear to be related to the problems the City is experiencing with the overall “newly implemented” SAP financial reporting system - particularly the problems the City is having closing the FY2010 books. Department staff, however, stated that such problems have not affected their review and tracking other than those involving labor charge allocations. Department management responded in October 2010 with improved CIP reporting and the Finance Subcommittee intends to follow up on remaining items in order to better understand CIP schedule slippages, program funding status and change orders.

Also, the Department has indicated that certain reporting problems stem from the delay in issuance of the FY2010 Comprehensive Annual Financial Report and will be resolved once it is finalized which the City’s Chief Financial Officer previously indicated that will occur in July or August 2011.

### **Conclusions and Recommendations**

IROC notes that reporting is better in the CIP area with consistency needed from quarter to quarter. IROC also believes some of this may be due to problems reported in the Engineering and Capital Projects Department as discussed in Finding #5 in the July 2011 City Auditors Office report entitled “Capital Improvement Program – Better Planning and Oversight Are Needed to Effectively Identify Capital Infrastructure Needs and Manage Projects”.

IROC recommends Department management provide the following additional reports prior to the next rate case, provided this requirement does not place undue cost or hardship on the Department, to help the Subcommittee better understand the basis for any proposed rate increases:

- An annual and comprehensive forecasted Statement of Cash Flows for the water, sewer and bond funds encompassing the following elements: (a) a five-year forecast period, (b) separate line items for forecasted operations, CIP and debt service expenditures, (c) separate line items for forecasted water/sewer rate, bond sale, and grant revenues, (d) forecasted cash and fund balances for the water, sewer, and bond funds, (e) the forecast should include the current CIP schedule and forecasted CIP expenditures based on that schedule, (f) forecasted debt coverage ratios, and (g) a list of assumptions upon which the forecast is based.
- Quarterly detailed actual versus budget statement of revenues, expenses, and changes in fund net assets for year-to-date and forecasted year-end revenues and expenditures for both funds; with an explanation of significant variances similar in quality to the report provided in May 2011. An example of an adequate report is the one included on page 54 of the Public Facilities Finance Authority of the City of San Diego Water Revenue Bonds, Series 2009B prospectus booklet as amended to include columns for YTD actual and forecasted year-end data; and YTD actual and forecasted year-end budget data.
- Quarterly detailed actual versus budget statement of net assets for both funds. An example of an adequate report format is the report included on page 58 of the 2009 Comprehensive Annual Financial Report as amended to include a column for budget data.

- Semi-annual forecasted statement of revenues, expenses, and changes in fund net assets for both the CIP program and the water and sewer funds for a five year forecast period. An example of an acceptable format is on page 59 of the 2008 Comprehensive Annual Financial Report forecasted out for five years.
- Quarterly comprehensive current versus baseline schedule report for all projects for the wastewater and water CIP program; as the prior reports include only some, but not all, projects.
- Quarterly reports of FTE position transfers, and the detailed charges comprising the payments for inter-fund services used line item included in the Statement of Cash Flows for the Water and Sewer Funds (See page 60 of the 2008 Comprehensive Annual Financial Report for an example of the inter-fund payments line item). Alternatively, Department management indicates that ratepayer assurance could be provided by mandating that the annual audit plan overseen by IROC include both a review of FTE position transfers and payments for inter-fund services, thus ensuring separation of Enterprise Funds and the General Fund. IROC concurs with this compromise solution.

The Department states it is taking steps to improve both its CIP and financial reporting, and has shown some evidence of this. The Finance Subcommittee will continue to work closely with Department management to review and monitor these additional report requests.

### **Capital Improvement Program**

The Subcommittee is pleased to report that CIP reporting has improved, even though problems were still noted in a recent report. In response to the subcommittee's June 2009 information request, the Department instituted quarterly actual versus budget expenditure reporting in October 2010 for both FY2010 and the 1<sup>st</sup> Quarter of 2011 water and wastewater CIP programs, and improved actual versus baseline schedule reporting for the same programs and periods. IROC therefore conducted a detailed review of the CIP program utilizing these documents, and now reports the following:

### **Wastewater CIP Program**

IROC observed that the number of sewer spills has significantly improved over the past ten years with total spills declining from 365 in 2000 to 41 in 2010 while the number of the sewer spills into public waterways - i.e. beaches and bays - decreased from 33 in 2000 to 13 in 2010. Infrastructure improvements resulting from the CIP, as well as additional resources committed to system condition evaluation and maintenance, have contributed to this improvement. IROC considers this a significant success for which the Department is congratulated.

### **Wastewater (Muni Fund) Rate Case FY08-11 CIP Program**

The Muni Wastewater CIP program appears to be behind schedule and due to recent economic conditions, significantly under budget. Some of the savings were redirected to augment the sewer replacement and rehabilitation project scope. IROC supports this scope augmentation in view of the city's remaining antiquated sewer infrastructure and due to the significant reduction in sewer spills which have occurred over the past ten years.

IROC is working with the Department to address program scope, budget, schedule controls, and other barriers to implementing CIP Projects on time. IROC continues to be concerned that the other City Departments that support the CIP Program may not have adequate engineering and management resources to implement the Muni CIP on schedule. We urge the City to consider taking remedial action to resolve this.

The Department has shown it is agreeable to enhancing its project level scope, schedule, budgetary reporting and controls. The Department has agreed to better define the scope of the CIP program by breaking out and reporting separately on all the sub-projects within the “annual allocation” projects. They have also agreed that all projects in the program (including all sub-projects in its “annual allocation projects”) will have individual actual versus baseline schedule reporting included in a comprehensive schedule report; and actual versus budget versus forecast total project cost financial reporting for all projects, including all subprojects in the annual allocation projects. The additional information should provide additional clarity regarding the current progress and financial condition of the program.

#### **Wastewater (Metro fund) Rate Case FY08-11 CIP Program**

Much like the Muni Wastewater CIP program, the Metro Wastewater CIP program appears to be behind schedule, and significantly under budget, with some of the funding being redirected to the annual allocation Metro Treatment Plant which appears to be significantly over its original budget due to scope expansion. The same program scope, schedule, and budgetary reporting and control issues present in the Wastewater Muni CIP program also appear present in the Wastewater Metro CIP program. As a follow up, IROC is pleased to note that the Department is including the Metro Wastewater CIP program projects in the same enhanced scope, schedule, and financial reporting it is instituting for the Muni CIP program as described in that section.

In an attempt to mitigate some of the above concerns, it is requested that IROC be informed of CIP scope changes when the changes amount to an increase of 10% or more than existing project budget.

#### **Water Rate Case FY08-11 CIP Program**

The water CIP program appears to be adequately managed as of December 2010 as it is coming in much closer to schedule than the wastewater program and is projected to realize an 11% budget savings. The subcommittee is working closely with the Department to understand significantly delayed or indefinitely postponed projects, and Department revised schedules. The Department will mitigate these concerns by including the Water CIP program projects in the same enhanced scope, schedule, and financial reporting it is instituting for the Wastewater CIP program as described in that section.

#### **Water Rates Analysis**

Over the past few years, water rates have increased as contemplated in the rate case approved by the City Council. The Department has deployed these revenues in part to make long-lived investments in water mains and other key assets, many of which were mandated by regulatory agencies. Separate from, and in addition to these investments in

City infrastructure, the County Water Authority has continued to invest in improved water security and reliability, and other upstream agencies have made investments further upstream. These other "upstream" investments are planned and executed not by the City's Public Utilities Department, but by other agencies that are not managed or directed by the City. The costs of operating these upstream agencies, and of their investment projects, are recovered by those agencies in the price they charge the City for water. As and when those agencies raise the price of water, in order to maintain its own revenues and expenditures as budgeted, the City "passes through" such increased cost to ratepayers, just as a gas station passes through the increased cost of gas to its customers in the form of higher pump prices. Essentially, the City is a retailer of other agencies' water.

The subcommittee independently reviewed water rates, water supply, wholesale water charges, and staffing/compensation statistics in order to better understand the issues that are driving department costs and water rates.

Due to previously mentioned financial reporting problems, IROC's review was limited to publicly available documents including current and past budgets, water bond prospectuses, and the City's audited Comprehensive Annual Financial Report all of which are publicly available on the city's website. The sources of the data are cited in each section.

### **Water Rates**

The following table shows the history of how retail and wholesale water rates changed over the five year period from July 1, 2005 to July 1, 2010. These rates reflect both City rate increases contemplated in the rate case, and upstream agency increases passed through to ratepayers:

#### **Five-Year Water Service Charge History for Single Family Residential, Multi-Family, Commercial, Industrial, Irrigation, and Construction**

Base Fees: Meter Size	Meter Size	Rate 7/1/2005	Rate 7/1/2010	Total % Change -5 Years
	5/8 Inch	14.310	18.860	31.8%
	¾ Inch	14.310	18.860	31.8%
	1 Inch	15.290	27.660	80.9%
	1 ½ Inch	68.410	47.790	-30.1%
	2 Inch	105.310	72.950	-30.7%
	3 Inch	377.980	132.040	-65.1%
	4 Inch	630.590	216.300	-65.7%
	6 Inch	1,407.450	425.080	-69.8%
	8 Inch	1,896.360	676.600	-64.3%
	10 Inch	2,542.760	970.890	-61.8%
	12 Inch	3,537.060	1,808.470	-48.9%
	16 Inch	5,903.130	3,150.360	-46.6%
Tier 1	0-7 HCF	1.609	3.399	111.2%
Tier 2	8-14 HCF	2.023	3.686	82.2%
Tier 3	Over 14 HCF	2.223	4.139	86.2%

Base Fees: Meter Size	Increase Amount	Rate 7/1/2005	Rate 7/1/2010	Total % Change -5 Years
Multifamily	All Volume	1.870	3.686	97.1%
Commercial	All Volume	1.870	3.536	89.1%
Industrial	All Volume	1.870	3.536	89.1%
Irrigation Temporary	All Volume	-	3.778	NA
Construction	All Volume	-	3.778	NA

Residential customers' bills are based on a fixed charge based on meter size, plus a variable charge based on the quantity of water consumer. The table makes plain that rates have increased substantially in recent years. Both IROC and the Department recognize that such a pattern is not sustainable over time. IROC recognizes, however, that water rates have increased during the current rate case much more than historical rates increased due to the need to fund work that was deferred in prior periods, City infrastructure investments that have been required to keep up with the aging state of facilities, and a number of other factors.

### **Water Cost Drivers**

**Water Supplies and Wholesale Water Costs.** The following tables show the recent history of the City of San Diego water supplies:

#### **Water Supplies the City of San Diego Fiscal Years 2007 thru 2011 (In AF)**

Water Supplies (In AF)	FY2007	FY2008	FY2009	FY2010	FY2011
Local Supplies	18,709	25,911	24,460	NA	NA
CWA Water Supplies	229,682	219,323	202,225	NA	NA
Total Supplies	248,391	245,234	226,685	-	-

Source: Public Facilities Financing Authority of the City of San Diego: Water Revenue Bonds, Series 2010A Prospectus page 29<sup>1</sup>  
According to department documents, these rate classes were charged on a per HCF basis in 7/1/05 which was changed to "All Volume" in 7/1/2010.

Source: Public Facilities Financing Authority of the City of San Diego: Water Revenue Bonds, Series 2010A Prospectus page 52, 53

Data was available only for FY 2007, 2008, and 2009 for the five year analysis period. Review of the data shows that there was a 7.6% reduction in supply between FY2008 and FY2009, but that supplies were elevated in both FY2007 and FY2008. Therefore supply constraints did not appear to be a major driver of water rate increases resulting from Department overhead costs being spread over significantly reduced supply since there wasn't a major reduction in water supplies during the study period.

The Department cites increased wholesale water costs as a cause of increasing retail water rates since they were routinely being passed through to retail customers in addition to the Department's water rate increases. The following shows the recent history of those rates.

**CWA Water Rates**  
**Fiscal Years 2005 through 2010**  
**(Per AF)**

Fiscal Year	Municipal & Industrial (M&I) Rates		Transport Rates	
	Untreated	Treated		
2005		\$349	\$461	\$55
2006		\$360	\$485	\$60
2007		\$365	\$512	\$60
2008		\$390	\$554	\$60
2009		\$463	\$631	\$64
2010		\$532	\$747	\$67
<b>Total Percent Change</b>		<b>52.4%</b>	<b>62.0%</b>	<b>21.8%</b>

Source: Public Facilities Financing Authority of the City of San Diego: Water Revenue Bonds, Series 2010A Prospectus page 29

The water supply table shows that the Department relies heavily on imported CWA water purchases with about 88% of its supply coming from this source versus 12% from local sources. Therefore, this is a major cost driver and clearly contributed to the increased retail rates.

The cause of the rising CWA water rates were found to reside in a combination of the costs of CWA infrastructure investments, and rising rates charged by the super regional water wholesaler – the Metropolitan Water District. IROC’s financial analysis indicates MWD’s increases were most driven by a combination of the following, though not necessarily in order thereof:

- MWD’s CIP program, the scheduling of its CIP program, and the increased use of pay-as-you-go funding from current year water rate revenues to pay for long term capital project costs which could have been more fully financed from long term bond funds;
- MWD’s alleged misallocation of water supply costs to their transportation rate which adversely affects the costs paid by SDCWA and ultimately San Diego ratepayers. This is currently the subject of litigation;
- Reductions in the amount of water sold, and;
- MWD’S compensation structure - specifically the levels of wages and benefits paid to their labor force under agreements negotiated with their public employee unions.

**Staffing and Compensation Costs.** Some critics contend that increased departmental staffing costs are a major cost driver and a cause of rising water rates. We examined staffing, compensation, and fringe benefit trends to see if this could be a contributing cause. The following shows departmental staffing levels. The sewer fund is also included in the analysis to correct for any position shifts and reorganizations which occurred during the review period.

**Public Utilities Department Staffing Levels  
FY 2007 to 2011**

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Change
FTE by Fund	Budget	Budget	Budget	Budget	Budget	2007-2011
Muni Sewer Revenue Fund				238	442	
Metropolitan Sewer Utility Fund	1,052	916	841	590	480	
Subtotal Sewer System	1,052	916	841	828	922	(130)
Water Fund	914	851	779	786	704	(210)
<b>Total Staffing</b>	<b>1,966</b>	<b>1,767</b>	<b>1,619</b>	<b>1,613</b>	<b>1,626</b>	<b>(339)</b>

Source: City of San Diego 2011 and 2009 DEPARTMENT - Department Budget

The table shows that water fund staffing decreased from 914 in 2007 to 704 in 2011 due to a departmental reorganization which merged the previously separate water and wastewater departments, and business process reengineering which occurred during that time period, as well as Bid to Goal which decreased FTE.

The following table shows the compensation and fringe benefit costs associated with these staffing levels during the period.

**Public Utilities Department Wage and Fringe Expense Levels  
FY 2007 to 2011  
(\$millions)**

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Variance (2011 vs. 2007)
	Budget	Budget	Budget	Budget	Adopted	
Salaries and Wages	113.6	110.1	98.3	95.5	92.9	(20.7)
Fringe Benefits	53.8	55.6	49.7	45.6	59.2	5.4
Total Pers. Exp	167.4	165.7	147.9	141.0	152.1	(15.3)
Fringe Expense Ratio	47%	50%	51%	48%	64%	

Source: City of San Diego 2011 and 2009 Budget

**Public Utilities Department Wage and Fringe Expense Levels (FTE)  
FY 2007 to 2011  
(\$)**

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Variance (2011 vs. 2007)
	Budget	Budget	Budget	Budget	Adopted	
Salaries and Wages	57,790	62,300	60,695	59,179	57,121	(167)
Fringe Benefit Expense	27,379	31,452	30,683	28,260	36,392	2,253
Total Pers. Exp	85,169	93,753	91,378	87,439	93,513	2,086
Fringe Expense Ratio	47%	50%	51%	48%	64%	

Source: City of San Diego 2011 and 2009 Budget

Wage and fringe expense data show that the decrease in wage cost was roughly in line with the 210 position staffing reduction, since the salary and wage cost per FTE remained relatively constant over the four year period at approximately \$57,000 per position.

Fringe benefit expenses, however, increased over the period instead of decreasing in line with salary and wage costs or staffing levels, with the result that the fringe benefit cost per FTE actually increased due mainly to retirement benefit costs that were underfunded in years past. As a consequence, the ratio of fringe expense to base salary cost increased from 47% in FY2007 to 64% by FY2011.

In summary, aggregate wage and fringe benefit costs declined due to the staffing reductions and effective control of wages, and therefore actually caused rates to be lower than they otherwise would have been.

This concludes the Finance Subcommittee notes for the IROC FY10 Annual Report.