SAN DIEGO CITY COUNCIL
WATER POLICY IMPLEMENTATION TASK FORCE

MEMORANDUM

TO: Chair and Members, Independent Rates Oversight Committee

FROM: Task Force Chair Cary Lowe

RE: Task Force Final Report

DATE: June 24, 2013

At the request of the City Council, we present you with the report of our Task Force for your review and comment. We have been meeting for the past year for the purpose of preparing a set of recommendations for implementation of City Council Policy 400-15 regarding water supply. The attached report consists of: (i) a transmittal letter to the City Council; (ii) a compilation of our goals and recommendations; (iii) a list of our Task Force members; and (iv) a complete set of our Task Force Records of Action.

At the time of appointment of our Task Force, the City Council requested that we communicate with IROC regarding our progress and the outcome of our deliberations. I made a presentation to IROC on November 19, 2012, regarding our progress as of that date, including our preliminary recommendations. Our work is now completed, subject to any further requests from the City Council. I will make a follow-up presentation at your next meeting.

Please review the attached material and compile the comments of IROC members. Our report is scheduled to be presented to the City Council's Natural Resources and Culture Committee on September 25, 2013. Please be prepared to present any comments you have on the report at that time.

Thank you. We appreciate your interest and your anticipated cooperation.

CDL:sh
Attachments

San Diego City Council
Water Policy Implementation Task Force

July 8, 2013

President and Members of the City Council
City of San Diego
202 "C" Street
San Diego, California 92101

Re: Report of Water Policy Implementation Task Force

Honorable President and Members of the City Council:

The Water Policy Implementation Task Force is pleased to present you with our report and recommendations. We look forward to discussing this material in future hearings and workshops and hope to see many of our recommendations quickly adopted as policies and ordinances of the City of San Diego.

The City Council appointed our Task Force on April 10, 2012, for the purpose of advising the Council with regard to implementation of the Council's Comprehensive Policy for a Sustainable Water Supply in San Diego (Policy No. 400-15), which was adopted unanimously in October 2011. The Task Force was constituted to represent a broad cross-section of the private sector industries in the City, as well as environmental interests and the academic community. A list of Task Force members is attached.

1. Task Force Process and Actions.

Commencing in May 2012, the Task Force has met monthly. We underwent an initial educational period, in which the Task Force received presentations from staff in the Public Utilities Department and other public agencies, as well as from private experts in pertinent areas. In the months since then, we have debated and adopted an extensive set of specific recommendations for implementation of the City Council's adopted water supply policies.

Our deliberations and actions have been premised on the City Council's recognition that San Diego's water supply faces great uncertainty unless actions are taken to reduce our water consumption, to apply new technologies to addressing our water needs, to secure sufficient supplies to meet the remaining needs, and to pursue sustainable land use and economic growth policies. Consequently, in formulating our recommendations, we balanced two important considerations – improving the sustainability of our water use practices and ensuring a clean, reliable water supply sufficient to meet the needs of our residents, businesses and institutions.

During the course of our deliberations, we made two interim reports to the City Council's Natural Resources and Culture Committee, on October 10, 2012 and February 19, 2013. On each of those occasions, on behalf of the Task Force, I presented the recommendations adopted to date and briefed the Committee on our overall progress.

I am pleased to report that our recommendations regarding goals and priorities have been adopted largely by consensus. While the diversity of representation on the Task Force has produced lively debate on many issues, and occasionally has required compromise, it has not kept us from carrying out our assigned duties in a collegial and productive manner.

We have reached consensus by operating through four Working Groups, focusing on:

- Water Conservation
- Water Recycling
- Effective Rate Structure
- Innovation and Technology.

Each Working Group has generated proposals for consideration by the full Task Force. In addition, we have considered proposals from city departmental staff and from members of the public.

2. Goals and Recommendations.

The full set of our recommendations is attached. With each recommendation is a proposed implementing action for that recommendation and proposed timing for that implementation. Also attached is a complete set of Records of Action from our meetings over the past year, to provide further context for our recommendations.

We would like to present some highlights of our report. First, we identified five overarching goals which provide a context for the specific recommendations. These goals address the following:

- Reducing importing of water
- Increasing recycling of waste water
- Initiating recycling of storm water
- Mitigating environmental consequences
- Reducing overall citywide water consumption.

In each Task Force area of focus, we adopted some particularly significant recommendations. The full text of all recommendations is attached, but we want to summarize the more significant ones here. These include:

a. Water Conservation.

i. Establishing an ongoing program to create a "water conservation ethic" among the general public

ii. Modifying the City's drought alert standards

iii. Promoting use of water-conserving landscaping

iv. Strengthening requirements for retrofitting homes with water-conserving fixtures at resale

v. Using new technology to facilitate tracking by property owners of indoor and outdoor water use

vi. Implementing incentives for sustainable development, including for reductions in water use

b. Water Recycling and Reuse.

i. Replenishing groundwater basins with storm water

ii. Promoting low-impact development to reduce storm water runoff

iii. Expanding production of potable water through recycling, in accordance with the City's 2012 Recycled Water Study

iv. Supporting legislation to facilitate both direct and indirect potable reuse

v. Facilitating use of graywater for irrigation

c. Rate Structure.

i. Modifying the current tiered rate structure to incentivize conservation

ii. Moving toward water budgeting for irrigation accounts

d. Innovation and Technology.

i. Reducing water loss throughout the city system

ii. Leveraging current water treatment technology to assist development of new related technologies

iii. Applying existing technologies to reduce energy consumption in the water distribution system

iv. Taking embedded energy implications into account in future water supply decisions

v. Establishing clear guidelines for on-site wastewater treatment and reuse facilities

vi. Accelerating retrofitting of water meters citywide with advanced metering infrastructure (AMI) technology.

We have been pleased to see some of our early recommendations adopted by the City Council already, prior to delivery of this report. The Council's actions to advance full-scale implementation of potable reuse of wastewater and to facilitate use of graywater are consistent with Task Force recommendations.

3. Remaining Steps.

The attached Goals and Recommendations are the product of our year-long efforts to formulate a plan for implementing the City Council's water supply policies. We

have not addressed every individual policy, but have concentrated on recommendations intended to facilitate implementation of your set of policies as a whole.

Thank you for the opportunity to have participated in this process. At your direction, we have presented our report to the Independent Rates Oversight Committee so that they may comment on it. We understand that Public Utilities Department staff and others also will have comments regarding our work. At the appropriate time, we look forward to formally presenting this report to you and to commencing the process of City Council review, leading to adoption of some or all of our recommendations.

Respectfully submitted,

Cary D. Lowe, Ph.D., AICP
Task Force Chairman

CDL:sh
Attachments

WATER POLICY IMPLEMENTATION TASK FORCE MEMBERSHIP

Members:	Representation
Cary Lowe, Law Office of Cary Lowe, Chair	Building and Facilities Industry
Glenn Schmidt, Schmidt Design Group, Vice Chair	Landscaping Industry
Gordon Hess, Gordon Hess & Associates, Secretary	Ratepayer Advocacy
Faith Picking, BIOCOM	Biotechnology and Life Sciences
Julia Chunn-Heer, Surfrider Foundation	Environmental Advocacy
Bruce Rainey, Scripps Healthcare	Hospitals and Healthcare
Keith Solar, Buchanan Ingersoll & Rooney	Water Law
Dawn Guendert, GHD	Water Technology and Hydrology
Corinne Brindley, Seaworld	Hotels, Restaurants and Tourism
Konstantine Georgakakos, Hydrologic Research Center	Water Supply and Climate Research
Robert Thiele, Robert Thiele Architecture	Business and Economic Development

Resigned and Replaced:

Tim Barnett, Scripps Institution of Oceanography	Water Supply and Climate Research
Douglas White, Cricket Communications	Business and Economic Development

San Diego City Council Water Policy Implementation Task Force
Goals and Recommendations

GOALS
GOAL NO. 1, REDUCTION IN TOTAL IMPORTED WATER Based on anticipated delivery of approximately 200,000 acre feet of imported water from the County Water Authority in 2015, reduce the volume of purchases of water originating outside the County 12% by 2025 and 35% by 2035.
GOAL NO. 2, INCREASE IN TOTAL RECYCLED WATER Increase production of recycled water to 10% of total treated water delivered within the City by 2025 and 35% of total by 2035. Adjust these goals upward if potable reuse is increased at a greater rate than currently anticipated.
GOAL NO. 3, RECYCLING STORM WATER Establish a program for treatment and recycling of storm water, based on a collaborative study between the Public Utilities Department and the Transportation & Storm Water Department, with a goal of commencing implementation of such a program by 2020.
GOAL NO.4, MITIGATING ENVIRONMENTAL CONSEQUENCES Consider the tradeoffs between expanding multiple benefits and potential environmental consequences in water management.
GOAL NO. 5, REDUCTION IN USE The Task Force acknowledges the substantial progress the residents and businesses of San Diego have made in meeting the state mandated goal of reducing per capita water consumption by 20 percent by 2020. With implementation of the recommendations made by the Task Force, including the proposed Potable Reuse Project, the Task Force believes that it is possible to expand this goal and achieve a 35 percent reduction in calculated per capita water usage by the year 2035.

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
CONSERVATION		
RECOMMENDATION NO. C1, Permanent Voluntary Drought Standard Modify Emergency Water Regulations as required to update and clarify text in the document, to make the current Level 1 Drought Alert a permanent voluntary standard. Examples of modifications may include, but are not limited to: a. Modifying and renaming the Level 1 Drought Alert to a permanent voluntary standard. b. Modifying the other stages of Drought Alert as required to clarify standards. c. Clarifying standards for non-potable water use during Drought Alerts. Include an alternative compliance application process for all drought alert levels for large water users such as parks, cemeteries, and golf courses.	City Council Action	Immediately
RECOMMENDATION NO. C2, Water Conservation Code Modification To strengthen the Code and to encourage more water-conserving (e.g., WaterSmart) landscapes in new construction, modify the Water Conservation Code requirement for new landscape construction as follows: a. Reduce the Evapotranspiration Factor from 0.7 to 0.6. b. Modify the Plant Factors from "ranges" to specific numbers as follows: • Very Low Water Use Plantings 0.1 • Low Water Use Plantings 0.3 • Moderate Water Use Plantings 0.5 • High Water Use Plantings 0.8. Special Use Landscape Areas including parks, edible gardens, and special botanical areas should retain 1.0 ET adjustment factor.	City Council Action	Immediately
RECOMMENDATION NO. C3, Water Budget Based Billing Implement a water budget based billing program for commercial landscape meters. This includes the utilization of Geographic Information Systems (GIS) to quantify irrigated areas and modifying billing systems to charge commercial customers based on a water budget for the size of their irrigated landscape area.	Departmental Preparation of Program City Council Action	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
RECOMMENDATION NO. C4, Water Conservation Ethic Implement a permanent and ongoing water conservation and outreach program. City leaders, elected officials and others should take on the responsibility of helping to create a city-wide water conservation ethic. The City should substantially increase funding for public outreach and education on water conservation, beginning with the next municipal budget cycle, in order to promote conservation on an ongoing basis and not only during drought periods. This is a key factor in creating a citywide water conservation ethic. Provide the City Council Natural Resources and Culture Committee (NRCC) with quarterly updates on conservation efforts and outcomes, much like the status reports regarding water recycling efforts and the Water Purification Project. Examine the education and outreach tactics used in countries such as Australia to achieve their massive reduction in water use. Coordinate regional water consumer education campaigns using the latest research from social psychology that shows what messaging is most effective in influencing thoughtful water use behavior. Water agencies can also work with the private sector to develop public-private partnerships that can help reduce consumer demand.	City Council Budget Action Departmental Research and Report	Next City Budget Cycle Immediately and Ongoing
RECOMMENDATION NO. C5, Sustainable Development Incentives Implement the Sustainable Development Incentive Program outlined in the most recent update of Council Policy 600-27. In addition, implement a voluntary (up to 100%) water offset program utilizing significant development incentives.	Departmental Preparation of Program City Council Budget Action	Immediately Next Budget Cycle

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
RECOMMENDATION NO. C6, Water Conservation Products In coordination with the San Diego County Water Authority, investigate implementing an outreach and education program that concentrates on home improvement stores and nurseries in the region. Evaluate programs for labeling water conserving products, especially in the landscape industry, such as labeling drought tolerant trees, shrubs and groundcovers.	Departmental Research and Coordination Possible City Council Budget Action	Immediately Next Budget Cycle
RECOMMENDATION NO C7, Cash for Grass Program Expand "Cash for Grass" programs to effect real change in the landscape, with a goal of converting 1,000 residential and 200 commercial sites per year to water conserving landscapes.	Departmental Research and Report Possible City Council Budget Action	Immediately Next Budget Cycle
RECOMMENDATION NO. C8, Conservation Equipment Rebates Investigate expanding rebate programs for indoor or outdoor water-conserving fixtures and equipment that would be cost effective and successful.	Departmental Research and Report Possible City Council Budget Action	Commence Immediately Next Budget Cycle
RECOMMENDATION NO. C9, Retrofit at Resale Modify Municipal Code Section 147.04 to require retrofit at resale of all plumbing fixtures to water conserving fixtures, including replacing toilets that utilize greater than 1.6 gallons per flush.	City Council Action	Immediately
RECOMMENDATION NO. C10, Water Use Monitoring Pursue new technology that provides real-time feedback tracking of indoor and outdoor water consumption for both residential and commercial property owners. Study technologies, and engage in a pilot study if appropriate (at the cost of the vendor), to demonstrate the success of products and methodologies, with the intent of promoting more widespread implementation of this technology.	Departmental Research and Report	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
RECOMMENDATION NO. C11, Tree Benefits Promote, support and educate the public regarding the importance of preserving and utilizing low and moderate water use trees, shrubs and groundcover species to maximize environmental and social benefits such as: shade, walkability, stormwater management, erosion control, reduction of urban heat island effects, oxygen production, carbon storage and other public benefits.	Departmental Research and Implementation	Commence Immediately
WATER RECYCLING AND REUSE		
Stormwater		
RECOMMENDATION NO. WR1, Stormwater Infiltration Direct the Transportation and Stormwater Department and the Public Utilities Department to investigate opportunities for strategic infiltration of stormwater in areas where stormwater could replenish existing groundwater basins. This provides multiple benefits: a. Infiltration may be the most cost-effective manner to address more stringent bacteria total maximum daily loads. b. Stormwater infiltration could increase the yield of existing groundwater basins and reduce salinity. c. Stormwater infiltration would benefit the environment by reducing run-off.	City Council Action Followed by Departmental Research and Report	Immediately
RECOMMENDATION NO. WR2, Groundwater Basins Direct the Public Utilities Department to increase the focus on characterizing groundwater basins such as the San Pasqual Basin, San Diego Formation and San Diego River System that could be potential local water supplies.	City Council Action Followed by Departmental Research and Report	Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
RECOMMENDATION NO. WR3, Pilot Study Funding Direct the Transportation and Stormwater Department and the Public Utilities Department to cooperate in investigating potential grant funding for a feasibility and pilot study, such as a multi-beneficial joint project that can be included in the Integrated Regional Water Management Plan for possible Department of Water Resources funding.	City Council Action Followed by Departmental Research and Report	Immediately
RECOMMENDATION NO. WR4, LID Demonstration Project Explore opportunities to develop a low impact development (LID) "Demonstration Project" in an area with high public traffic and access, such as Balboa Park, that would reduce run-off and also serve to educate the public. Alternatively, consider pursuing a "green streets" project, like the one in Los Angeles which produces multiple benefits and serves as a demonstration site as well.	Departmental Research and Report	Commence Immediately
RECOMMENDATION NO. WR5, Stormwater Management Direct the Transportation and Stormwater Department to investigate new programs that achieve the following goals: a. Funding city-wide stormwater management programs to meet existing and new Regional Water Quality Control Board requirements through the use of a new fee-based program that can be directly correlated to Equivalent Stormwater Units assigned to each individual property. b. Providing incentives, such as a fee reduction, to property owners of new and existing development to maximize the use of low impact development methodologies such as pervious pavement, grass rooftops, rain gardens and trees to minimize stormwater run-off.	City Council Action Followed by Departmental Research and Report	Immediately
Non-Potable Reuse		
RECOMMENDATION NO. WR6, Non-Potable Reuse Expansion Encourage "cost-effective" expansion of non-potable reuse by in-fill within the backbone of the existing system only. ("Cost effective" meaning the City can recover the cost of service.)	Departmental Research and Coordination Possible City Council Budget Action	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
RECOMMENDATION NO. WR7, Recycled Water Rates Since existing recycled water rates were set at a discounted rate in 2001 and no provision was made for increasing them, and no adjustment to the discounted rate has been made since 2001, revisit the rate structure for users of non-potable recycled water and adjust the rate to recover the cost of service or at least index rates to keep up with increases in other water rates.	Departmental Research and Coordination Possible City Council Budget Action	Commence Immediately
Potable Reuse		
RECOMMENDATION NO. WR8, Recycled Water Study Move forward with recommended next steps in the 2012 Recycled Water Study.	City Council Action Followed by Departmental Implementation	Immediately
RECOMMENDATION NO. WR9, Water Purification Project Discuss with the County Water Authority its participation in Phase 2 and Phase 3 of the Water Purification Project as part of a potential future regional water supply, as the advanced treated water from the Water Purification Project will be stored in San Vicente Reservoir, which can serve the region.	Departmental Communications and Report	Immediately
RECOMMENDATION NO. WR10, Potable Reuse Regulations Support legislation to streamline the regulatory process for indirect and direct potable reuse.	City Council Action	Immediately
RECOMMENDATION NO. WR11, Direct Potable Reuse Become an active participant in the Coalition for Direct Potable Reuse.	City Council Action Followed by Departmental Implementation	Immediately
RECOMMENDATION NO. WR12, Reuse Technology Test Site Offer the Water Purification Demonstration Plant as a site for testing technologies and methodologies to demonstrate the ability to provide real-time monitoring and implement fail-safe process methodology for treating wastewater to potable water quality.	City Council Action Followed by Departmental Implementation	Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
Graywater		
RECOMMENDATION NO. WR13, No Permit for Basic Systems Maintain the current "no permit" policy for Closed Clothes Washer Systems.	No Action Required	
RECOMMENDATION NO. WR14, Expansion of "No-Permit" Standard Expand the "no permit" requirement to systems used for landscape irrigation that discharge less than 250 gallons a day and consist primarily of systems taking discharge water from washing machines and wash basins and do not include a potable water connection or the use of a pump, or affect other plumbing, electrical, mechanical or building components. Emphasize the use of Best Management Practices to prevent runoff.	City Council Action	Completed
RECOMMENDATION NO. WR15, Permitting Streamline the permitting process for "simple" and "complex systems" that take discharge water from other elements in a residence such as bathtubs and showers that would require more extensive in-house plumbing, electrical or mechanical modifications or use of a pump.	City Council Action	Completed
RECOMMENDATION NO. WR16, Simple Systems Information Direct the Public Utilities Department, in consultation with the Development Services Department, to develop and include information on simple graywater systems in their public outreach materials and social media outreach, including emphasis on use of Best Management Practices to prevent runoff.	City Council Action Followed by Departmental Implementation	Completed
RECOMMENDATION NO. WR17, Complex Systems Oversight Continue oversight of "complex systems" in the purview of the Development Services Department in order to ensure that Plumbing and Building Code requirements are met.	City Council Action	Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
RATE STRUCTURE		
RECOMMENDATION NO. RS1, Tiered Rate Structure To encourage conservation, retain a tiered rate structure, but with greater cost difference between tiers. For example, some water suppliers that use a three-tiered rate structure charge thirty percent (30%) more for Tier 2 than for Tier 1, and forty percent (40%) more for Tier 3 than for Tier 2.	Departmental Program Development City Council Action	Following Conclusion of Cost of Service Study
RECOMMENDATION NO. RS2, Cost of Service Study Use the Cost of Service Study being performed for the City by Black and Veatch, to determine how much the City should charge for each tier of water service. (Note: Black and Veatch cautions, however, that the difference between tiers should not be unduly punitive, such as tiers that are 10 or 15 times higher than the base rate.)	Departmental Program Development City Council Action	Following Conclusion of Cost of Service Study
RECOMMENDATION NO. RS3, Water-Based Budget for Irrigation Continue with studies of a water-based budget for the City's approximately 4,400 irrigation-only accounts. Depending on the results of those studies, include this concept when the City next moves forward with a Proposition 218 notice seeking to increase rates.	Departmental Research and Report City Council Action	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
INNOVATION & TECHNOLOGY		
Leak Detection & Technology		
RECOMMENDATION NO. IT1, Water Loss Reduction Improve the quality of the data used to establish water loss performance indicators, such as: a. Evaluating accuracy in the determination of the number of service connections and length of water mains. b. Evaluating the potential for errors associated with determination of water input volumes. c. Introducing a program to address unauthorized consumption. d. Introducing a methodology to determine the magnitude for meter under-registration. e. Maintaining separate statistics for leaks and for water used in fire suppression. f. Benchmarking real versus apparent losses. g. Calibrating the City's current model. h. Evaluating pressure reduction through rezoning.	Departmental Research and Implementation	Commence Immediately
RECOMMENDATION NO. IT2, Water Pressure Assessment Conduct the City's own assessment of potential pressure reduction throughout each pressure zone, if the City has not already done so, by such means as: a. Desktop assessment of existing topographic and water supply conditions, including customer base requirements. b. Evaluation and validation of network performance through hydraulic modeling. c. Identification and investigation of potential rezoning opportunities to reduce energy requirements.	City Council Action Followed by Departmental Research and Report	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
Facilitating Technology Development in the San Diego Region		
RECOMMENDATION NO. IT3, Assisting New Technologies Investigate the possibility of using the Water Purification Project demonstration site or providing services, as appropriate, for local water treatment technology manufacturers and/or Blue Tech industries that need (or desire) to do field testing of new products.	Departmental Research and Implementation	Commence Immediately
Energy & Water		
RECOMMENDATION NO. IT4, Optimization Study Include in any planned optimization study not only pumped storage but also development of solar energy at City-owned sites and the use of in-line hydroelectric (micro turbines) in place of pressure reducing valves at appropriate locations in the distribution system, to reduce imported energy consumption by the City and create overall long term energy savings.	Departmental Research and Implementation	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
RECOMMENDATION NO. IT5, Dynamic Optimization Programs As part of the City's Energy Optimization Study, evaluate the costs and benefits of dynamic optimization programs that provide water utilities an opportunity to use behind the meter dynamic real-time SMARTGrid technology to increase efficiency and flexibility to better manage their own energy use. Considering the complexity of the City's treatment and distribution system, at the minimum, the dynamic optimization programs evaluated should be able to handle several hundred pumps, control-valves, and demand zones and save energy costs, in at least five main ways, by: a. Time-of-use load shifting where the pumping operations are moved from daytime (high energy tariff) to night-time (low energy tariff); b. Peak charges avoidance where the software will naturally choose to avoid running pumps during high periods when peak charges occur; c. Selecting lowest cost sources of water where the software queries the lowest cost of production of water and adjusts the water source based on the information; d. Achievement of shortest path through the trunk distribution network by constantly reading and working to the lowest head loss; and e. Pump efficiency improvement because the software holds the actual pump operating curve which is calibrated from flow and pressure measurements read from telemetry, and from the monthly energy bill. The software selects the combination of pump settings which delivers the overall lowest operating cost and highest possible efficiency.	Departmental Research and Implementation	Commence Immediately
RECOMMENDATION NO. IT6, Energy and Water Supply Take the "embedded energy" of any water supply into account in any future City water supply decisions. Since water and energy are intrinsically linked, both limited resources must be managed efficiently.	Departmental Research and Report City Council Action	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
On-Site Waste Water Treatment		
RECOMMENDATION NO. IT7, On-Site Treatment Guidelines Using an open stakeholder process including representatives of the Public Utilities, Parks and Recreation, and Development Services departments, the City Attorney's office, private developers and others, develop a set of guidelines for on-site or decentralized wastewater treatment and reuse (including proposals for sewer mining operations) which detail the issues and criteria (including the financial viability of a proposed project) that proposals must meet or address in order for the City to participate in or cooperate with such projects.	Departmental Research and Report City Council Action	Commence Immediately
RECOMMENDATION NO. IT8, Value of Wastewater and Reclaimed Water Consider the value of both wastewater (when providing water for potential sewer mining operations) and reclaimed water (when projects provide water to city owned properties) and increased costs or avoided costs that the City would incur or realize, and how the proposed project could impact the City's plans for potable reuse when setting a charge for wastewater supply and/or purchase price of recycled product water provided by the project. Establish standby fees and reserved capacity charges for such projects, so that developers can take such fees into account in determining whether a proposed project makes economic sense. Consider any avoided costs, such as reducing the City's need to expand, repair or replace its sewer collection system, providing system redundancy for disaster preparedness, or other factors that can be clearly demonstrated by the developer and credit a portion of such benefits back to projects through a reduction in or credit to the standby fees, or reserved capacity charges identified above. Cooperate with private developers, non-profit groups, or others to help facilitate development of viable on-site waste water treatment projects that meet the criteria developed through the processes detailed above. Such cooperation could include demonstration projects paid at developer/advocate expense to further identify issues, equipment, methods of operation (including sludge disposal) or procedures that could be incorporated into larger scale operations.	Departmental Research and Report City Council Action	Commence Immediately

RECOMMENDATIONS	PERFORMANCE STANDARD	TIMING
Advanced Metering Infrastructure		
RECOMMENDATION NO. IT10, AMI Funding Pursue grant funding to offset some of the costs for an entire system Advanced Metering Infrastructure retrofit.	Departmental Implementation	Immediately
RECOMMENDATION NO. IT11, Water Meter Retrofitting Retrofit all of the remaining 265,000 water meters with AMI technology within 10 years.	City Council Budget Action Departmental Implementation	Commence Immediately
RECOMMENDATION NO. IT12, Retrofit Cost-Sharing Consider cost sharing with single family customers who would like to retrofit their water meters with AMI technology on a more expeditious basis.	Departmental Research and Report City Council Action	Commence Immediately