

Metropolitan Water District of Southern California 2009 Integrated Resources Plan

1st Round of Stakeholder Forums Summary Report

Introduction

Metropolitan's mission is to provide "...adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way." This is no simple task; all the more so in an arid region like Southern California, where limited supplies are further complicated by competing uses, growing demands, environmental considerations, and a multitude of jurisdictions with interest in or responsibility for water.

The Metropolitan Water District of Southern California (Metropolitan) has responsibility for bringing water to nearly 19 million Southern Californians and a regional economy of over \$800 billion. Key to meeting this responsibility is thoughtful, proactive water planning. Metropolitan achieves this through its Integrated Resources Plan (IRP), which evaluates alternative water supplies and conservation efforts to meet water demands of the region in a reliable, cost-effective and environmentally responsible manner.

Metropolitan's first IRP was developed in 1996, and updated in 2004. This plan recognizes that there are many new challenges, such as Bay-Delta and Colorado River water supply restrictions, climate change, continued population growth, emerging water quality issues and rising energy costs. These new challenges will undoubtedly require new approaches that Metropolitan will address in its updated IRP, which will include planning for future needs, looking at the best options to increase availability, and defining best practices to lower water use. But this is more than an update; the 2009 IRP will also explore new ways of doing business at Metropolitan, with its member water agencies, and other water, wastewater and energy utilities in the region.

To develop this critical and complex IRP, Metropolitan has embarked upon a region-wide collaborative process that includes broad-based stakeholder involvement. In September and October of 2008, the first round of four Stakeholder Forums was held in Newport Beach, Ontario, Los Angeles, and San Diego to gather ideas and input from diverse interests. Participants included representatives from Metropolitan's member agencies, retail water providers, groundwater basin managers, elected officials, other government agencies, environmental groups, business, non-governmental organizations, civic groups, and interested individuals. Nearly 600 stakeholders participated in these forums and demonstrated widespread interest in the region's long-term water supply planning.

The Stakeholder Forums were comprised of half-day facilitated workshops. The first part of the workshops entailed a presentation by Metropolitan staff that provided an overview of water demands and supplies in the region and identified the challenges facing Southern California in continuing to provide reliable, high quality water. Stakeholders at each of these forums were then split into four smaller breakout groups to answer several questions that were designed to help Metropolitan gain important insights for the IRP. All four breakout groups answered one common question, and four additional questions specific to each breakout group. The participants' answers and suggestions were recorded and are summarized in this Stakeholder Forum Summary Report.

Common Question

What new water supply and conservation strategies should the region evaluate for implementation during the next 50 years, and what criteria should be used when evaluating them?

A wealth of responses was provided. Recommended strategies have been grouped by category, below:

CONSERVATION was the most frequently mentioned strategy, with numerous ideas and concepts provided.

Water-Saving Landscapes Participants at all four forums placed emphasis on landscape-related conservation, encouraging native landscaping (drought tolerant, California Friendly®) for new development and re-landscaping for existing areas. Ideas included:

- Greater incentives to replace grass lawns, like Las Vegas' "cash for grass" program
- Small, realistic California Friendly® demonstration gardens
- Educate retailers and landscapers; make California-Friendly® plants easy to find and purchase
- Encourage public agencies to "show by example"
- New regulations, such as prohibiting use of potable water for large-scale outdoor use, water-saving landscape ordinances, requiring California-Friendly® landscaping for new developments
- Incentives to reduce evapo-transpiration and runoff, including tree planting and permeable pavement
- Incentives or "give-aways" to provide automatic sprinkler systems and smart controllers at all homes

Water Rate Incentives Participants at all four forums outlined opportunities to encourage conservation through water rates, including:

- Tiered rates and more aggressive tiered pricing; Metropolitan involvement in developing and promoting tiered rates, with additional incentives
- Need-based rate structures
- Individual metering for multi-family and condo units
- Fines for overuse and incentives for water savings
- Double-tiered and water quality for home use potable supplies and irrigation
- Leadership efforts to price water appropriately
- Widely communicate future rate increases, as an incentive to save water now

Regulatory Changes At all four forums, people proposed regulatory changes and additional rules to advance conservation, including:

- Metropolitan should lead legislative efforts calling for uniformity related to conservation measures
- Implement a regional model landscape ordinance
- Encourage changes in building industry standards, including green-building ordinances, that will conserve water and encourage developers to retrofit existing developments
- Many local ordinances impede conservation; modify them to facilitate conservation
- Update plumbing efficiency codes
- Incorporate water conservation in city management plans and National Pollutant Discharge Elimination Systems (NPDES) permits

- Conduct water audits for existing buildings and provide incentives for water-saving upgrades
- Encourage the installation of composting toilets and remote meters to detect water leaks
- Require dual plumbing for new construction

Partnerships and Collaboration This theme emerged throughout the forums, and relating to conservation included ideas for:

- Better coordination between planners and water suppliers
- Partnerships with the plumbing industry to finance retrofits
- Engage the bottled water industry in conservation efforts
- Integrate water and power supplies to encourage conservation
- An integrated program among cities and industry

BMPs This too was a common theme throughout the forums. Relative to conservation, ideas included:

- Assess and establish/define “reasonable” residential and landscape use, including a goal for per-capita use
- Per-capita goals likely will not work, given diverse needs and conditions
- Develop model ordinances (developers find it difficult to know what to do, since there is no uniformity region-wide)
- Look to other countries for good examples of conservation practices
- Set conservation standards for new development (such as green buildings)

Investments and Funding Commitment of additional funding and resources was a common theme, including:

- Fund R&D for additional conservation measures (grey water, on-site stormwater, evapo-transpiration controllers)
- Establish regional trading and conservation credits, and conservation cap and trade
- Provide funding for large-scale demonstration of new technology for conservation and drought-resistant gardens

Beyond Urban Conservation Forum participants recognized that conservation initiatives should not be limited to cities and communities, with recommendations that included:

- Pursue regional conservation strategies
- Work with agriculture and other industries to improve water use and increase supply
- Coordinate conservation measures with agricultural agencies (techniques, crop shift, apply NPDES to agriculture, partner to develop BMPs)

RECYCLING was advocated as a source of supply, with participant’s at all four forums voicing support to:

- Increase local recycled water projects and use of recycled water, including setting higher goals for recycling (up to 100 percent), investing more dollars in recycled water projects, and providing larger incentives for water recycling
- Encourage dual plumbing in residential areas, as well as solar systems, water capture systems, on-site water recycling, and hot water recirculation systems

- Review and address regulatory barriers and inconsistencies affecting use of recycled water, and support legislation to encourage recycled water use
- Encourage indirect potable reuse by focusing on public and regulatory acceptance
- Send recycled water through raw water conveyances versus groundwater recharge
- Use aquifers to store and recover recycled water

Additional ideas to advance water recycling discussed at some of the forums included:

- Use smaller satellite plants; localized treatment by locating facilities along the wastewater mains and upstream in the watershed to capture and treat wastewater closer to the source
- Research and address salt management for recycled water
- Expand the use of grey water for residential irrigation
- Expand use of rainwater harvesting and cisterns
- Integrated planning among water, stormwater, and wastewater agencies

EDUCATION was mentioned as a strategy at all four forums, with multiple ideas expressed including:

- Work to change the current “water culture” to focus on water conservation through education programs and outreach
- Increase public communication regarding the value of water and the interrelationship of water and other issues
- Base education initiatives on studies of consumer behavior; work to change public perceptions and behavior through continuous reinforcement of uniform messages
- Include mechanisms for feedback as part of education programs
- Direct specific education programs to different audiences, including commercial/industrial users, schools, and general consumers
- Use varied educational methods, including Web sites, television, spokespeople from the entertainment industry and social marketing to encourage a cultural shift in the value of water and increase awareness of water-saving technologies
- Use diverse approaches, for example water education in schools, focus groups with residents and businesses on conservation and water use, grass roots education programs (block by block), collaboration with local colleges to develop new designs for drought-tolerant gardens, a Metropolitan venue for sharing conservation ideas and practices, conduct a mock water crisis (like an earthquake drill)
- Communicate the connection between smart water use and other aspects of water management (stormwater pollution, energy, habitat/ecosystems, global warming)
- Change the terminology associated with conservation and provide specific examples for conservation messages (e.g. how long/how much to irrigate)

STORMWATER was identified as another key source at the forums, with a focus on taking greater advantage of stormwater, rather than diverting it to flood control systems.

Participants at all four forums encouraged development of strategies to beneficially use runoff, including:

- Develop guidelines to provide for on-site stormwater reuse
- Encourage stormwater collection at all properties, using grading and landscape modifications

- Encourage rainwater harvesting (cisterns)
- Advocate a nationwide system for managing stormwater
- Expand use of holding basins to capture stormwater; investigate ways to treat stormwater and irrigation runoff as a local water supply, for irrigation use or to recharge groundwater

Forum participants in Los Angeles and San Diego also focused on reducing or eliminating runoff, with ideas such as:

- Work with city planners to increase tree densification to decrease rain runoff
- Develop systems to increase infiltration
- Work with local stormwater agency to improve water quality of runoff
- Establish better relationships with county agencies for water management (storm/flood water)
- Control and reduce urban runoff through watershed management and focus on environmental impacts

WATER IMPORTS were discussed at all four forums, with varied improvements and approaches proposed, among them:

- A broad consensus on the need to fix the Delta, with specific mention of Metropolitan taking the lead, to assure a reliable supply of high quality water; strongly encourage the State Water Contractors to take the lead; applying science-based processes for decision making related to the Delta; and making Delta fixes to minimize fish takes
- Design and construct the peripheral canal in less than 20 years
- Acquire new water rights, including other rivers in the state
- Work with agencies to find new water sources and continue to fund source expansion
- Re-evaluate Colorado River and Delta allocations, based on need
- Consider the Colorado River and Pacific Ocean as part of basin water allocations
- Institute a national water system
- Transport water using water bag technology

Forum participants in Los Angeles, San Diego, and Ontario advocated looking northward and out of state for additional supplies, including:

- Re-operate federally controlled dams vs. flood control dams
- Import water from the Pacific Northwest (Oregon and Washington) and Canada
- Change Columbia River laws in Washington

DESALINATION was discussed as a source at all four forums, with ideas including:

- Push for Metropolitan to “dominate” desalination-facility development and take the lead in implementing aggressive ocean desalination projects, including the development of legislative support
- Need a regional approach to resources and desalination facilities
- Increase research and cutting-edge technology to reduce costs and enhance energy efficiency of desalination
- Enhance incentives to speed development of desalination
- Increase education/awareness of desalination

- Develop nuclear power plants in tandem with desalination (coastal, thermal plants) or cogeneration
- Integrate salt management plans into the IRP
- Consider the quality of desalinated water and potential damage to other water sources
- Consider brackish groundwater desalination
- Demand offsets for new development; inland pays for coastal development

Forum participants in both San Diego and Los Angeles mentioned the possibility of coordinating with Mexico to develop a desalination plant.

GROUNDWATER emerged as a supply topic during the forums in San Diego, Los Angeles, and Ontario, with ideas that included:

- Integrate salinity management and groundwater recharge into the IRP
- Improve groundwater basin planning
- Provide monetary support for groundwater recharge projects and long-term groundwater storage
- Develop a groundwater storage policy
- Increase groundwater storage; expand the range of groundwater basins
- Recharge groundwater basins with stormwater in wet years
- Enhance groundwater remediation and local storage capabilities
- Increase use of recycled water for groundwater by blending
- Provide incentives for wellhead treatment
- Rethink groundwater seasonal storage program
- Support new research to allow for increased drawdown
- Encourage permeable surfaces to reduce runoff and increase recharge

WATER TRANSFERS were brought up by participants in the Ontario and San Diego forums, whose ideas included:

- Increase use of water transfers within Metropolitan service area; maximize use of existing facilities for water transfers and distribution
- Place greater emphasis on Imperial Irrigation District/Palos Verdes Irrigation District dry year supply transfers
- Explore interstate transfer opportunities: Oregon, Washington, Midwest
- Provide resource sharing among agencies within the region (Eastern, MWDOC, internal water market)
- Expand relationships with agriculture (transfer agricultural to municipal/urban uses, conservation to reduce water use on some crops)

EVALUATION CRITERIA

Participants' ideas and recommendations for criteria to evaluate the IRP's 50 year strategies were similarly diverse and showed considerable alignment among the forums.

Criteria proposed by all four forums included:

Environmental impacts, such as environmental sustainability, environmental costs and benefits, ability to promote watershed health, impacts on climate change, effects for wildlife

Multiple benefits, with an eye to providing both water and environmental protection, addressing the whole system of human and environmental needs, providing benefits to local industries beyond water, and attracting a range of funding partners

Public support, with specific mention of public perception, public acceptability, early buy-in, consumer acceptance, as well as support and leadership by elected officials

Risk, including risk diversification, potential for environmental conflict or litigation, flexibility to address unknowns such as increased costs and consumer paradigm shifts, ability to meet emergency requirements

Local focus, better to have programs and projects implemented by local versus state authorities, should emphasize local support and control, and regional cooperation

Reliability, focusing on sustainability over time, increased reliability, and enhanced regional and local reliability

In addition, specific mention was given to:

Timeliness of implementation, technical feasibility and research, by forum participants in Newport Beach, San Diego, and Ontario

Balanced regulations, ease of permitting, and need for changes in laws and ordinances, by forum participants in Los Angeles, San Diego, and Newport Beach

Carbon neutral, carbon footprint, reduce greenhouse gases, enhanced energy efficiency and renewable energy, by forum participants in Los Angeles, San Diego, and Ontario

Breakout Group Question 1

In the future, what other ways can development (whether new growth or infill) help mitigate the impacts of growth on water supply?

While there were some clear geographic differences, participants at all four forums voiced a common theme that new development should pay for or offset the costs of additional water demand. Participants at all four forums suggested new requirements to drive smart, green, water-saving development, requiring low-use internal and external water fixtures as well as water efficient landscaping. Another common theme was to focus both on water-saving practices for both new and existing development.

Ontario Forum Participants expressed that local government and utilities need to develop shared standards, so projects can move forward smoothly. Some advocated a stronger link between “smart development” and Metropolitan’s Local Resources Program, to offset the costs to cities and developers.

The group suggested that Metropolitan and local utilities should be responsible for education, and Metropolitan should be responsible for broadening incentives. Cities, counties and the state should be responsible for ordinances, and local cities and utilities should be responsible for linking efficiency to the permitting process.

Ontario participants also indicated that it is important to promote “smart development and technology” with commercial and residential properties. “Smart readouts” should be tied to the water rate structure and used to limit irrigation during periods of peak demand.

Several suggestions were made to develop “smart homes” including:

- Low-flush toilets
- Tankless water heaters
- High efficiency dishwashers and clothes washers
- Canister water softeners
- Computerized leak detection software

Los Angeles Forum Participants discussed several considerations as part of rate-structure modifications, such as unfair impacts to disadvantaged groups and economic impacts beyond the individual ratepayer.

Suggestions for how new development can decrease water demand included:

- Environmental restoration credits
- Conservation offsets for annexed areas
- Promoting high-density residential development to reduce per-capita water use
- Eliminate front and back yards from new development designs and install more neighborhood parks so people have alternatives to their own yards

The group agreed that new development alone cannot mitigate the impacts on water supply and suggested existing development could decrease water demand by evaluating existing water uses and applying conservation surcharges, as well as installing water meters for agricultural users. Some members also discussed imposing limits on agricultural expansion.

Participants in Los Angeles also discussed instituting statewide regulations on outdoor water conservation (installing purple pipes for recycled water and green pipes for

rainwater). Many noted that peer pressure, as opposed to regulation or a tiered rate structure, may be a more effective option, as it was in Irvine.

Newport Beach Forum participants focused on creating specific, uniform standards for new development, for example: standards for reclamation systems, dual piping and metering for indoor and outdoor uses, low-flush toilets, permeable surfaces, land uses, open space, and community cisterns. These would be implemented by local jurisdictions and water agencies. In conjunction with these standards, an incentive system would be provided for those who meet or exceed standards, and a new rate structure would be created for existing development.

Additionally, the group suggested that breaking down legislative and institutional barriers would make it easier to develop and enforce uniform standards. They advocated for incentives for installing efficient water systems in existing homes and businesses, funded and implemented by Metropolitan and local agencies.

San Diego Forum participants suggested that all new development should be water neutral at a minimum. For example, developers would be asked to invest in local conservation, recycled water, or desalination projects to off-set their project. The group advocated partnerships among builders, regional water suppliers, and Metropolitan to create smart homes, with local, uniform rules on new development, and education for builders on new water-saving technologies. The group also advocated that the first priority for demand off-sets should be within the local water utility, followed by the county, and then the Metropolitan service area region. San Diego County has already had meetings with water utilities and developers to start the dialogue regarding how a water neutral program would work.

Additionally, the group felt Metropolitan's water allocation should be re-examined and that each region should see benefits from the system.

Breakout Group Question 2

What more would you be willing to pay in the future to ensure 100% reliability for essential purposes (such as drinking water, fire protection) 10%, 20%, 30%, more? What about landscaping or other outdoor uses; how much more would you be willing to pay not to have this water interrupted?

A common theme of all four forums was that people would be willing to pay more for water supply reliability, although there were many different concepts discussed regarding how much added costs people would be willing or able to bear. Other common themes included the sense that education about the need for water rate increases may help move people to accepting higher pricing, higher costs and would help encourage conservation. Also, consideration should be given to specialized rates for specific uses.

Ontario Forum participants indicated that most of their group would be willing to pay 100 percent more to ensure a reliable water supply. However, in discussing public reaction to higher water rates, some suggested that people may not be willing to pay more for water and it would take a great deal of education for people to understand the need to raise water rates. Additional ideas included:

- people will pay whatever it costs because they can't live without water
- higher pricing will change people's behavior with regard to water conservation

- significant rate increases (up to 50 percent) would motivate people to use California-native landscaping
- rate accommodations must be made for some entities like schools
- Santa Barbara successfully increased water pricing to improve reliability
- commercial users in one city stated they would pay 100 percent more
- people would be receptive to learning about ways to reduce their water use as an alternative to service interruptions
- service interruptions should be prioritized, for example, public parks should have priority over individual yards

The group recommended implementing a regional water surcharge because it would be simpler than each agency passing its own surcharge. However, some felt there should not be a rate increase for essential water services. Some group members felt strongly that potable water should not be used for landscape purposes.

The forum group looking at Question 4 also offered insights regarding water pricing. Some in the group felt there is elasticity in what people will pay for water; the willingness to pay for bottled water means prices for water can go pretty high. Some in the group felt there would be population shifts in the future due to cheaper water available in specific areas.

Los Angeles Forum participants brought forward diverse ideas and perspectives:

- One water system manager in the group said he would pay an additional 10 to 15 percent for increased reliability. In a past study, a survey group initially said they would pay five to ten percent more to increase reliability, but after being provided additional information, some people in the group said they would pay up to 50 percent more.
- Some participants suggested that water users would pay up to 100 percent more for essential uses and 10 percent more for nonessential uses. If dual-meter systems are installed, agencies could institute different rates for indoor and outdoor uses.
- As with electricity rates, change in use sometimes is not affected until a drastic (300 to 500 percent) increase is instituted.
- Each agency has its own capital improvement programs, so when Metropolitan raises rates, it leaves little room for agencies to pass on their own costs.
- Instead of increasing rates, agencies could include an additional charge for developing supplemental supply.
- The group brought up several caveats about increasing rates and options beyond increased rates:
 - 100 percent reliability can never realistically be achieved. A natural disaster can cut off water supplies, and no increase in water rates can prevent that.
 - Some participants said they would be more willing to make changes to the way they use water in order not to pay more.
 - Rate increases would need to be justified (new pipelines, etc.) and communicated to enhance customer knowledge and support.
 - The additional amount people would be willing to spend will vary greatly depending on income level.

Newport Beach Forum participants discussed rate increases as a way to encourage people to cut down on outdoor water use. Many felt that an increase in rates alone would not result in major change, especially in higher-income areas that can afford water-intensive landscaping. Some participants suggested that rates could not be arbitrarily raised to encourage conservation, but that rate increases must reflect the cost of service.

Participants suggested a few alternatives to raising rates:

- A tiered pricing system for essential uses and providing incentives for cutting down on outdoor water use. This would necessitate instituting a dual rate system to differentiate between indoor and outdoor water use.
- Include a flat fee in water bills to fund research and development for new supplies.
- Institute fines for wasteful practices, though some participants pointed out that this may encourage neighbors to report their neighbors and it is expensive to monitor.
- Ensure that spending by Metropolitan and member agencies is efficient and effective.

Generally, participants felt that rate increases would need to be drastic to affect widespread changes in water use, similar to what has happened with gas prices. Water rates today are 300 percent higher than they were 30 years ago, which shows that customers are willing to pay about 10 percent more each year for essential uses (drinking water) and 5 percent more each year for landscaping and other outdoor uses.

San Diego Forum participants focused their discussion on a variety of rate-related issues, including:

- Government must first be efficient before it increases water rates
- Consumers need to be educated about why water rates need to be increased in order for them to accept paying higher rates. After being educated, the group suggested that people would be willing to pay 20 percent more annually for reliable water
- Incentives should be given to encourage conservation, and people who do not conserve water should pay higher rates

Breakout Group Question 3

How can Metropolitan foster equitable partnerships with other utilities (including wastewater, stormwater and energy) to implement multi-benefit projects?

There were many differing perspectives regarding partnerships, however, at all four forums participants stressed the value of partnerships and encouraged Metropolitan to take a leadership role in broadening the number and scope of its partnering arrangements.

Ontario Forum participants said it is important to expand utilities partnerships to include non-governmental organizations and federal/state agencies. Suggestions related to this included:

- Metropolitan should lead a water and power forum to develop a model and communication protocol for partnerships.
- The Integrated Areas Study Plan needs to be expanded.
- It is important to focus on reducing the net carbon footprint of all future projects. One participant said it was important to develop a climate change policy to be competitive regarding future grants.

- Metropolitan should form a stormwater task force to discuss issues and guidelines from a water supply perspective.
- Metropolitan should develop regional energy management programs.

Los Angeles Forum participants suggested that Metropolitan should be more proactive in building partnerships with agencies and stakeholders, for example:

- Bridge the gap between environmental groups and water management groups/industries to foster a more collaborative process
- Allow energy groups (e.g. solar, wind) to utilize Metropolitan's existing land assets in the desert to produce renewable energy
- Work with stormwater agencies, sanitation districts and flood control agencies to capture and reuse stormwater
- Partner with water replenishment districts to develop injection wells and facilitate recycled water projects
- Participate in the statewide Integrated Regional Water Management Plan (IRWMP)
- Increase partnerships with water retailers by providing financial and technical support, especially as water rates increase. These partnerships can be vehicles for determining the best financial positions for water deliveries.

In addition, group members felt Metropolitan could also take the lead in:

- Developing satellite recycling plants and upstream plants to decentralize water infrastructure
- Community outreach efforts to seek regulatory, political, and public support for recycled water
- Financing infrastructure for processing brackish water and discharging brine
- Developing a holistic (water and power) conservation rebate package
- Supporting research and development of new technologies
- Financing large-scale recycled water plants and selling recycled water
- Incentivizing wetlands treatments projects, groundwater recharge, stormwater capture and reuse

Newport Beach Forum participants discussed what it means to be “equitable”, in that some partners will look to Metropolitan as a financial partner. The group suggested that perhaps partnerships should be portrayed as mutually beneficial.

The group focused on building partnerships with local agencies based on the following:

- Regulatory issues, so all agencies can speak with a common voice
- Legislative issues, to promote and advance local projects in Sacramento and Washington, D.C
- Technical issues by developing studies and pilot plans
- Community outreach efforts to help ensure consistent messages
- Recycling efforts, especially with wastewater and stormwater agencies
- Coupling desalination and energy production
- Local Resources Program restructuring, to provide higher incentives

The group also discussed the form partnerships between Metropolitan and member agencies could take, with ideas that included:

- Metropolitan offering subsidies for local projects
- Metropolitan leading regional planning efforts, so local agencies have a better understanding of their needs and Metropolitan can prioritize its funding
- Metropolitan partnering with local distributors to determine per-capita water use and base allocations on local criteria
- Metropolitan partnering with local agencies to increase awareness of water conservation with individual users in a more comprehensive way

San Diego Forum participants reviewed a number of topics.

- Some members of the group stated that Metropolitan should be very involved with other utilities in implementing projects; others said Metropolitan should only provide broad oversight for the projects
- It is important to partner with local agencies to develop a uniform educational message about water. There should be incentives or a point system to encourage agencies to participate.
- Some members said Metropolitan should focus on fixing the Delta rather than getting involved in local projects
- Some important partnerships discussed by the group included:
 - State and Federal government
 - American Planning Association
 - Waste disposal organizations (to promote native plant use to cut down on green waste)
 - On-site recycling (coordinate with developers)
 - Landscaping vendors to push for conservation
 - Conservation demonstrations

Breakout Group Question 4

Given the challenges presented earlier, what do you think are the most important uncertainties that should be incorporated into the IRP?

Of all the group questions, this one demonstrated the greatest commonality geographically, with a wide range of similar ideas and recommendations that Metropolitan take an active part in addressing and resolving uncertainties and challenges.

Common themes among all four geographic areas included:

- Natural disasters such as seismic events, coastal flooding, and seawater intrusion into the Delta
- Climate change and resulting sea level rise, that will impact water quality and reliability; ability to finance climate change preparation programs; precipitation timing; impacts to watersheds; unpredictable weather averages
- Environmental concerns such as endangered species (e.g. Delta smelt), quagga mussels, eco-system stability, and conflicts that can arise when agencies at different levels respond in different ways to environmental challenges
- Economic conditions at all levels, including project funding, ability to bond for large projects, available funding for building and maintenance
- Regulatory changes, policies, legislation, and court decisions

Multiple forums showed commonality in raising additional themes:

- Demographic changes, population growth, aging population, and urban development patterns—Ontario, Los Angeles, Newport Beach forums
- Water quality, including impacts related to chemical and pharmaceutical contaminants—Ontario, Los Angeles, Newport Beach forums
- Global and domestic shifts in agricultural land use—Ontario, Los Angeles forums
- Changes in public attitude regarding conservation, recycling, grey water, etc.—Ontario, Los Angeles forums
- Energy availability and cost—Ontario, Los Angeles forums

Additional challenges and uncertainties were specific to individual forums.

- Ontario Forum participants talked of new technology and the importance of planning as a continuous process, indicating Metropolitan should revisit the plan in no less than five years. Some have said a 20-year IRP is not a long enough period, because completing projects can involve a long process.
- Los Angeles Forum participants spoke of terrorism threats, possible privatization of water, customers' willingness/ability to pay, water availability and distribution impacted by seasons, and possible failure of Salton Sea restoration
- Newport Beach Forum participants, in addition to identifying challenges, also identified some possible solutions:
 - Overall plan ahead, decrease reliance on centralized infrastructure and reorganize the permitting process so it is less of a hindrance
 - Overall reliability at the local, regional and state levels, with an emphasis on local resources
 - Develop storage projects to capture rain water and flood water
 - Initiate development of at least one desalination plant in case it is needed
- Develop shorter-term goals to maintain progress and emphasize contingency planning and adaptive management
- San Diego Forum participants surfaced the additional uncertainties of water transfers and voter acceptance and support

Conclusion

Metropolitan's board and staff appreciate the time and participation of all who attended the stakeholder forums and others who provided input. The suggestions will be reviewed and evaluated by staff as Metropolitan moves forward in the development of the updated Integrated Resources Plan. Updates will be provided on www.mwdh2o.com/irp.

A second round of stakeholder forums is scheduled to be convened in late summer or early fall of 2009 to solicit further input on specific proposals that will be identified by Metropolitan's board during the coming months.

This collaborative effort by Metropolitan, its Member Agencies and all stakeholders is essential to developing and implementing a long-term plan to provide reliable, high-quality water throughout the region. This is especially important as Southern California – and, the state – continue to face a series of unprecedented challenges to California's water supply and delivery system.