

**INTEGRATED RESOURCE PLANNING ADVISORY COMMITTEE
MEETING SUMMARY**

September 10, 2014, 4:00 p.m.

Colorado River Conference Rooms, Southern Nevada Water Authority
100 City Parkway, Seventh Floor, Las Vegas, Nevada

IRPAC Members Present	Tom Burns Yvanna Cancela Bob Ferraro John Guedry Jennifer Lewis April Mastroluca Otto Merida	Bobby Miracle Terry Murphy Phil Ralston John Restrepo David Scherer Virginia Valentine
IRPAC Members Absent	Thalia Dondero Garry Goett Joyce Haldeman Warren Hardy	Katherine Jacobi Carol Jefferies Brian McAnallen Danny Thompson
Staff Present:	John Entsminger Phil Speight Dave Johnson Zane Marshall	Ken Albright Marc Jensen Andy Belanger Kathy Flanagan

PUBLIC COMMENT

For full public comment remarks, please visit www.snwa.com/apps/agenda/snwa/index.cfm

None.

SUMMARY OF ACTIVITIES

The Southern Nevada Water Authority's (SNWA) Integrated Resource Planning Advisory Committee (IRPAC) met on Wednesday, September 10, 2014. The meeting began at 4:11 p.m.

Item No. 1: Approve the meeting summary for July 23, 2014. The meeting summary was approved without comment.

Item No. 2: Receive an update on current drought conditions. John Entsminger, SNWA General Manager, described the current drought conditions in the Colorado River Basin. The basin received 150 percent of normal precipitation for the month of August; however, August is not a significant contributor to the annual flow of the Colorado River. The water level of Lake Mead is currently at 1,081 feet, six feet from the first shortage declaration (1,075 feet).

Item No. 3: Discuss key recommendation topics. Dave Ebersold, facilitator, reminded IRPAC members that the SNWA Board of Directors had suggested a list of topics IRPAC may want to consider during its tenure. They include, local conservation, Colorado River System conservation, new infrastructure requirements, funding of drought mitigation efforts, and the In-State Groundwater Project.

David Scherer asked if the committee should consider making a recommendation regarding SNWA's efforts towards the development of new water technologies. Dave Johnson, SNWA Deputy General Manager of Engineering and Operations, explained that SNWA maintains "technological innovation" as a standing goal for the agency. SNWA is now in the process of appraising which new technologies should be pursued further, as there have been many advances in recent years.

John Guedry asked what additional water resources SNWA is considering, apart from the In-State Groundwater Project. Mr. Entsminger said IRPAC will receive an overview of SNWA's Water Resource Plan at the next IRPAC meeting, which will address that question and include multiple supply-demand scenarios with different population and conservation variables to consider.

Item No. 4: Finalize a list of attributes to consider when developing recommendations. Mr. Ebersold noted changes to the list of attributes IRPAC members will use to formulate recommendations, incorporated based upon feedback at the previous meeting. The committee discussed the revised alternatives at length, requesting clarification and making several modifications to them. The attribute list was modified during the meeting to the committee's satisfaction, and the committee reached consensus on the attributes. The following represents a summary of the attributes.

Economic Development - Considers an alternative's effect on SNWA's economic competitiveness, measured through comparison of regional water costs.

Water Use Efficiency - Considers an alternative's effect on water use efficiency.

Impacts to Quality of Life - Considers an alternative's impact on the consumptive use of water. Evaluates the potential impact of stringent water use regulations on residents.

Reliability - Considers an alternative's effect on SNWA's ability to dependably supply and deliver water to its customers.

Cost Effectiveness – Considers the relative costs and effects between different alternative choices.

Minimize Implementation Risk – Measured by the complexity to implement the alternative; regulatory, technical or political.

Impact to Ratepayer - Considers a particular alternative's effect on the ratepayer and on different rate customer classes.

Economic Sustainability – The committee eliminated this attribute and incorporated elements into Cost Effectiveness and Economic Development.

Environmental Impact – Evaluates the consequences of an alternative's impact on the environment.

Mr. Scherer asked for information showing the potential impacts to ratepayers based on the different alternatives. Mr. Entsminger offered to provide information that shows how the average bill by customer class would change based on choosing a particular alternative. In addition, information will be provided showing how a potential rate increase would affect SNWA's average bill ranking among western cities.

Item No. 5: Receive a presentation on conservation goals and initiatives. Zane Marshall, Director of Water and Environmental Resources, outlined SNWA's conservation measures. SNWA administers one of the nation's most comprehensive and successful water conservation programs. The agency's approach to conservation involves an integrated four-pronged structure, which includes water pricing, incentives, regulations and education.

Pricing: To encourage water efficiency while maintaining affordable rates, Southern Nevada's water purveyors utilize a multi-tiered rate structure which promotes conservation. High-consumption users pay more per gallon.

Incentives: Examples of SNWA's conservation incentives include landscape rebates, car wash coupons, pool cover rebates and rewards for commercial and multi-family properties that adopt water efficient technologies.

Regulations: Local municipalities set and enforce water efficiency regulations, which were developed in conjunction with the SNWA. Examples include turf limitations for new construction, mandatory watering restrictions, commercial misting systems and facility/equipment-cleaning restrictions and water waste investigations.

Education: SNWA partners with different sectors within the community to encourage water efficiency and utilizes several venues to promote and educate the public about water conservation. SNWA partners with the Water Conservation Coalition and showcases its conservation strategies through its Water Smart Home Program, Water Smart Contractors Program, Water Smart Innovations Conference, and the Springs Preserve.

Outdoor water use is the focus of SNWA's conservation efforts because water used outdoors cannot be recycled. Conversely, water that is used indoors and flows to the sewer is treated and returned to Lake Mead. SNWA is able to then withdraw an additional gallon to use again. This special water recycling program (Return-Flow Credits) extends SNWA's water resources by approximately 60 percent.

SNWA's Water Smart Landscapes Program has invested approximately \$200 million to date. The conservation program helps property owners convert water-thirsty grass to desert landscaping. SNWA rebates customers \$1.50 per square foot of grass removed and replaced with desert landscaping up to the first 5,000 square feet converted per property, per year (170 million square feet of turf has been converted since the program's inception, saving billions of gallons of water for the community).

Mr. Ralston asked how much of SNWA's conservation gains can be attributed to the removal of turf in the community. Mr. Marshall said the Water Smart Landscapes Program is responsible for approximately 30 percent of SNWA's total water savings since the program began.

Bob Ferrero asked if the Springs Preserve was an effective tool in promoting water conservation. Mr. Marshall said the venue is helpful in changing the water use ethic of the community. Residents can see how they can have a beautiful landscape that also conserves water.

Gallons Per Capita per Day (GPCD)

Mr. Marshall continued with his presentation explaining the concept of Gallons Per Capita per Day (GPCD). GPCD is the most common method of tracking water use efficiency and is an established benchmark used by most municipalities. In 2004, a similar committee to IRPAC recommended that SNWA set a conservation goal of 199 GPCD by 2035, which was adopted by the SNWA Board of Directors in 2005.

Over the last six years, Southern Nevada has lowered its GPCD from 248 in 2008 to 212 in 2013. This is well ahead of the projected GPCD expected in order to meet the 2035 goal of 199. Mr. Entsminger suggested IRPAC may want to consider modifying SNWA's GPCD goal and timetable. At the next meeting, additional information will be provided to IRPAC that will help inform the committee whether the current GPCD goal is sufficient or should be revisited.

While GPCD is the most common method of tracking water efficiency, it has its limitations. There is no standard formula among cities, so comparing the water use efficiency of one city to another is problematic. For example, only SNWA's residential population is counted in the GPCD equation; the millions of tourists that visit Las Vegas are not included. This fact makes SNWA's GPCD appear higher. Additionally, Southern Nevada's diversion-based GPCD is currently 212, but this does not take into account SNWA's ability to recycle virtually all water used indoors. When calculating GPCD using net consumptive water use, Southern Nevada's GPCD falls to 124. Because of SNWA's unique water recycling opportunity via Lake Mead, our net GPCD is more representative of Southern Nevada's water footprint on the Colorado River.

Item No. 6: Apply attributes to conservation issues and draft recommendations. Due to the loss of a quorum resulting from the departure of a committee member at this point in the meeting, IRPAC did not take any action on this item. Mr. Entsminger asked the committee to consider two questions in regard to SNWA's GPCD conservation metric: 1) is the current GPCD goal of 199 by 2035 adequate, or should it be made more aggressive in light of the progress made to date? 2) should SNWA use gross or net GPCD values going forward?

Mr. Ralston asked if using net consumptive use would make SNWA look better when compared to other cities water efficiency. Mr. Entsminger confirmed it would express SNWA in a more accurate light. Net consumptive use is perhaps more appropriate for Las Vegas' geographic circumstances – which is being uniquely located on the Colorado River and having the opportunity to recycle much of its water supply.

Mr. Ralston suggested that IRPAC also address the public's perception about the community's potential shortage of water resources. In his experience, residents of Southern Nevada are under the false impression that SNWA is at risk of not having sufficient water supplies to meet future demands. Mr. Entsminger suggested a focus on net water consumption was a way to help calm those fears, because Southern Nevada's net consumptive use of water is well within SNWA's Colorado River allocation. While having a reliable water supply and delivery system are valid concerns, especially during an extended drought, they are problems that are solvable, Mr. Entsminger offered.

Mr. Ralston asked how much water is consumed by the Las Vegas Strip. Mr. Entsminger said that while the SNWA distributes a relatively large amount of water to the Strip, it only consumes 3-4 percent of Southern Nevada's total water supply (since most of the water used on the Strip is used indoors, and thus recycled).

Virginia Valentine expressed her constant surprise at the lack of understanding by the general public in regard to the concept of consumptive vs. non-consumptive use of water. The focus of SNWA's conservation efforts should be on lowering the community's consumptive use water, she said. Both Mr. Ralston and Ms. Valentine believe that increasing public awareness of how water is used and conserved should be a goal of the committee.

Item No. 7: Receive an update related to Lake Mead Intake Pumping Station No. 3. Dave Johnson provided an update on Pumping Station No. 3, which would be required to pump water from Lake Mead if the elevation of the lake fell below 1,000 feet.

SNWA's engineering consultants reported/recommended the following:

- Build the pumping station above ground; that design option is less vulnerable to leakage and less expensive.
- It would take approximately one year to design and four years to construct.
- Estimated total cost is \$610 million, which includes a 30 percent contingency provision.

- Total costs include design and construction, but does not include additional water treatment modifications that might be necessary at very low lake elevations (higher levels of organics and turbidity are expected from water drawn below elevation 1,000 feet).

To fund the project, the average residential monthly water bill (for 5/8” and 3/4” meters) would increase approximately \$3 per month, going from \$41.62 to \$44.62. Despite this potential increase, the average bill would still remain well within the middle range when compared to other western cities.

At a future meeting, SNWA will provide IRPAC members detailed information that shows how the cost of Intake Pumping Station No. 3 would be distributed by all user classes and meter sizes. Guy Hobbs of Hobbs/Ong & Associates (SNWA’s financial consultant) is prepared to assemble any information which may help the committee make recommendations.

Mr. Restrepo asked why there is such a significant difference in the average water bill among cities located in Southern California. David Wright, SNWA Chief Financial Officer, explained that each city’s water costs are partly dependent on how much of their water supply is from local groundwater versus water imported from the Metropolitan Water District of Southern California.

Mr. Ebersold thanked the committee for their time. The next meeting is scheduled for October 15, 2014.

PUBLIC COMMENT

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None.

ADJOURNMENT

The meeting was adjourned at 5:57 p.m.