

**SOUTHERN NEVADA WATER AUTHORITY
BOARD OF DIRECTORS
REGULAR MEETING
DECEMBER 10, 2014
MINUTES**

CALL TO ORDER 9:03 a.m., SNWA Board Chambers, Southern Nevada Water Authority
100 City Parkway, Seventh Floor, Las Vegas, Nevada

BOARD MEMBERS PRESENT Mary Beth Scow, Chair
Sam Bateman, Vice Chair
Susan Brager
Bob Coffin
Duncan McCoy
Anita Wood

BOARD MEMBERS ABSENT Steve Sisolak

STAFF PRESENT John Entsminger, Phil Speight, Julie Wilcox, Dave Johnson, Greg Walch,
Dave Wright, Marc Jensen

OTHERS PRESENT Kade Stratton, Piercy Bowler Taylor & Kern

Unless otherwise indicated, all members present voted in the affirmative.

COMMENTS BY THE GENERAL PUBLIC

For complete comments, audio is available online at snwa.com

Ed Uehling, Las Vegas, discussed his concerns with agenda item no. 2, and felt the members of the Integrated Resource Planning Advisory Committee were hand-selected and that the committee process was not transparent.

Paul Moradkhan, Las Vegas Metro Chamber of Commerce and member of the Integrated Resource Planning Advisory Committee, spoke regarding agenda item no. 2. He discussed his support for the IRPAC's Recommendations Report, specifically a new low water level pumping station and the rate modification.

Item 16 was taken out of order

1. For Possible Action: Approval of Agenda & Minutes

FINAL ACTION: A motion was made by Director Brager to approve the meeting's agenda and to consider agenda item no. 16 first, and to approve the meeting minutes of September 18, 2014. The motion was approved.

16. For Information Only: Receive an update from staff on water resources including, but not limited to, drought conditions in the Colorado River Basin, the results of the implementation of the Authority's Water Resource and Conservation Plans, activities on the Colorado River, the development of in-state water resources, and the status of the third intake project.

Marc Jensen, Engineering Director, shared that the tunnel boring machine had completed its tunneling journey and has made contact with the intake structure this morning a few moments before the Board meeting began. He noted a few activities remain including lowering the temporary bulkhead, dewatering the intake structure, disassembling the tunnel boring machine and laying utility pipeline before the project is completed. The Board offered staff their congratulations for their hard work over the past few years on the project.

NO ACTION NECESSARY

2. *For Possible Action: Conduct a Public Hearing to consider and adopt the recommendations from the Integrated Resource Planning Advisory Committee, including the adoption of a drought protection charge, or take other action as appropriate.*

John Entsminger, General Manager, gave an overview of the Integrated Resource Planning Advisory Committee (IRPAC) process and their resulting recommendations, which included construction of a new low water level pumping station near Lake Mead and a rate increase to support construction of such facility. A copy of his presentation is attached to these minutes.

Chairwoman Scow recognized the IRPAC members in the audience, thanked them for their service and opened the public hearing.

Danny Thompson, AFL-CIO and IRPAC member, discussed the transparency of the IRPAC process and noted his support for the IRPAC's recommendations and rate increase.

Virginia Valentine, Nevada Resort Association and IRPAC member, noted the importance of water supply to the region and state, and expressed her support for the IRPAC's recommendations and rate increase.

Terry Murphy, Strategic Solutions and IRPAC member, noted that Southern Nevada cannot assume the risk of Lake Mead's water elevation falling below 1,000 feet and noted her support for the IRPAC recommendations.

John Restrepo, RCG Economics, NAIOP Board member and IRPAC member, discussed Southern Nevada's economy as it relates to water security and urged Board members to approve the IRPAC's recommendations.

Bobbi Miracle, Commercial Executives Real Estates Services and IRPAC member, commented on the openness of the IRPAC process and the availability of information, and expressed her support of the IRPAC's recommendations.

Ed Uehling, Las Vegas, recognized the importance of accessing water upstream of the Las Vegas Wash, but noted his disappointment of failing to construct a water pumping station at the time of the third intake's construction. He discussed the existing rate structure and how the rate increase will be shared among customer classes and did not support the rate increase.

With no additional persons wishing to speak, Chairwoman Scow closed the meeting. Mr. Entsminger noted that a third water pumping station was initially included as part of the third intake project, but was later deferred to save money during the recession. The decision, Mr. Entsminger noted, proved effective as new pumping technologies allow for a pumping station which will allow pumping at lower lake levels.

Director McCoy expressed his support for the IRPAC's recommendations and noted that the low level water pumping station is necessary for Southern Nevada. He also specifically thanked the Boulder City participants on the IRPAC and explicitly noted their impartiality to the committee process.

Director Brager also noted the committee's impartiality and the process' transparency. She also noted the times that board members were briefed outside of public meetings on issues.

Director Wood discussed how rate increases are never popular and will impact constituents, but recognized the role they play in constructing infrastructure that secures Southern Nevada's water supplies.

Director Coffin noted his support for the rate increase and IRPAC recommendations, and discussed the challenges of funding infrastructure.

Chairwoman Scow noted that approval of the recommendations instills confidence into Southern Nevada's future, particularly through investors.

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendation. The motion was approved.

At 10:26 a.m., Chairwoman Scow recessed the meeting for two minutes to allow time for a short break. The meeting resumed at 10:28 a.m.

3. ***For Possible Action: Approve and authorize the General Manager to execute, in substantially the same form, a Memorandum of Understanding among the United States, acting through the Bureau of Reclamation, Central Arizona Water Conservation District, Metropolitan Water District of Southern California, Arizona Department of Water Resources, Colorado River Board of California, Colorado River Commission of Nevada and the Authority for Pilot Drought Response Actions.***

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendations. The motion was approved.

4. ***For Possible Action: Approve and authorize the General Manager to sign an agreement between Carollo Engineers, Inc., and the Authority for the "Blending Requirements for Water from Direct Potable Reuse Treatment Facilities" study, and accept funds in an amount not to exceed \$111,376 for this research work.***

Director Coffin noted the importance of this type of research work and that it demonstrates the future of water reuse. Dave Johnson, Deputy General Manager of Engineering and Operations, mentioned other cities which utilize this type of water reuse, and discussed the research focus and how the research will be utilized.

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendation. The motion was approved.

5. ***For Possible Action: Approve and authorize the General Manager to sign an agreement between the Water Research Foundation and the Authority for the "Simultaneous Removal of Multiple Chemical Contaminants using Biofiltration" study, authorize the Authority to contribute \$304,000 in cost-share services as its co-participant portion, and accept funds in an amount not to exceed \$350,000.***

FINAL ACTION: A motion was made by Director McCoy to follow staff's recommendation. The motion was approved.

6. ***For Possible Action: Approve and authorize the General Manager to sign an agreement between Hazen and Sawyer, P.C., and the Authority for the "GAC Control of Regulated and Emerging Disinfection Byproducts of Health Concern" study, and accept funds in an amount not to exceed \$60,000 for this research work.***

FINAL ACTION: A motion was made by Director Wood to follow staff's recommendation. The motion was approved.

7. ***For Possible Action: Approve and authorize the General Manager to sign a cooperative agreement between the Nevada Division of Forestry and the Authority to conduct inmate conservation camp work detail services for the period from December 10, 2014, through November 30, 2016, for an amount not to exceed \$200,000.***

FINAL ACTION: A motion was made by Director Wood to follow staff's recommendation. The motion was approved.

8. ***For Possible Action: Approve and authorize the General Manager to sign a funding contribution agreement between the Nevada Division of Water Resources and the Authority for surface and groundwater data collection services within Nevada to be performed by the U.S. Geological Survey for an amount not to exceed \$200,695.***

FINAL ACTION: A motion was made by Director Brager to follow staff's recommendation. The motion was approved.

9. ***For Possible Action:*** Approve and authorize the General Manager to sign an agreement between Spring Valley Associates, LLC, and the Authority for professional staffing services for the Authority's Northern Resources properties, for an amount not to exceed \$975,000 annually for a three year term, with an option to extend for another three year term.

Director Coffin asked if the Authority had any plans to grow crops besides alfalfa; Mr. Entsminger noted that the Authority had no plans to modify ranching operations in any significant way.

FINAL ACTION: A motion was made by Director Wood to follow staff's recommendation. The motion was approved.

10. ***For Possible Action:*** Approve and authorize the General Manager to sign an agreement between Quantum Spatial, Inc., and the Authority for digital aerial imagery services for an amount not to exceed \$130,000 for the period ending on December 31, 2015.

FINAL ACTION: A motion was made by Director Wood to follow staff's recommendations. The motion was approved.

11. ***For Possible Action:*** Approve an agreement, in substantially the same form, retaining Marsh Risk and Insurance Services, the Authority's current insurance broker, and approve an extension of the Builders Risk Insurance and Terrorism Insurance on the Lake Mead Intake No. 3 Project.

FINAL ACTION: A motion was made by Director McCoy to follow staff's recommendations. The motion was approved.

12. ***For Possible Action:*** Adopt the 2009 Water Resource Plan for the 2015 calendar year.

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendations. The motion was approved.

13. ***For Possible Action:*** Adopt the 2013 Water Budget for the 2015 calendar year.

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendations. The motion was approved.

14. ***For Possible Action:*** Adopt the Annual Operating Plan for the Southern Nevada Water System.

FINAL ACTION: A motion was made by Vice Chair Bateman to follow staff's recommendations. The motion was approved.

15. ***For Possible Action:*** Accept the Authority's Comprehensive Annual Financial Report for the period ending June 30, 2014, as presented by the Authority's external auditors, Piercy Bowler Taylor & Kern, and authorize its submission to the Nevada Department of Taxation.

Kade Stratton of Piercy Bowler Taylor & Kern shared that his firm completed the Authority's audit and gave it an unmodified (formerly known as an unqualified) opinion.

FINAL ACTION: A motion was made by Director Wood to follow staff's recommendations. The motion was approved.

Public Comment

Ed Uehling, Las Vegas, clarified his remarks and noted that he does not oppose accessing water above the Las Vegas Wash. He stated his belief that members of IRPAC were handpicked, and discussed water rates among customer classes including those with fireline meters. He suggested increasing water rates within tiers and a look to Denver's water utility as a model.

Adjournment

There being no further business to come before the board, the meeting adjourned at 10:53 a.m.

APPROVED:

Mary Beth Scow, Chair

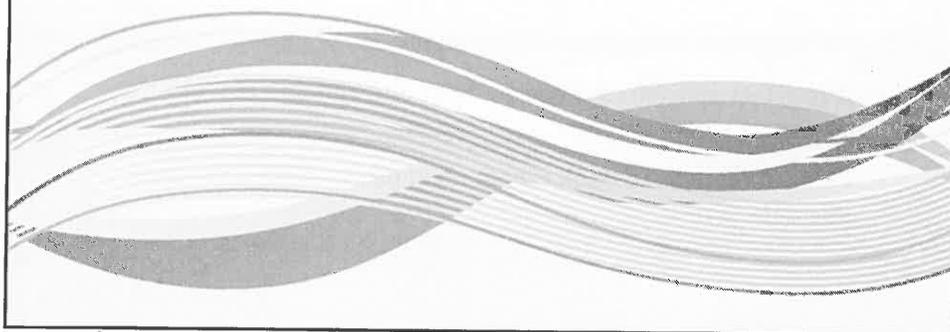
John J. Entsminger, General Manager

Copies of all original agenda items and minutes, including all attachments, are on file in the General Manager's office at the Las Vegas Valley Water District, 1001 South Valley View Boulevard, Las Vegas, Nevada.



SOUTHERN NEVADA WATER AUTHORITY®

Integrated Resource Planning Advisory Committee *Resource and Facility Recommendations*



Background

Since its formation in 1991, the SNWA has actively engaged the public in its decision-making processes through integrated resource planning.

- **Integrated Resource Plan Advisory Committee (1994-96)**
- **Advisory Committee for Groundwater Management (1997-present)**
- **Water Quality Citizens Advisory Committee (1997-98)**
- **Las Vegas Wash Coordination Committee (1998-present)**
- **Drought Citizens Advisory Committee (2003)**
- **Integrated Water Planning Advisory Committee (2004-05)**
- **Integrated Resource Planning Advisory Committee (2012-2014)**

IRPAC – Phase I

In April 2012, the SNWA Board convened an advisory committee to develop recommendations that address the challenges faced by Southern Nevada's water utility managers.

In September 2013, the IRPAC concluded its first phase of the committee process with nine recommendations, which included:

- An open and transparent rate process
- A rate increase (shared among fixed and variable charges) to address a significant increase in annual bond payments
- Policy directives to bank excess revenues for future needs or pay debt faster

3

IRPAC – Phase II

After a short break to allow time to implement its first set of recommendations, the IRPAC began meeting again in 2014 to address facility and resource related topics:

Water resources

Conservation

Facilities

Water quality

Climate change

4

Committee Meetings

- All committee work conducted in public meetings
- Agendas were publicly noticed and posted
- All committee materials are available on SNWA.com for review, including audio recordings
- Recommendations were drafted by the committee at its public meetings
- A neutral facilitator was utilized to coordinate meetings

5

Committee Topics

- Colorado River laws and agreements
- Climate change and Lake Mead elevation projections
- Impacts to Lake Mead as a result of declining lake levels
- Conservation
- Water resources
- Funding
- Groundwater Development Project

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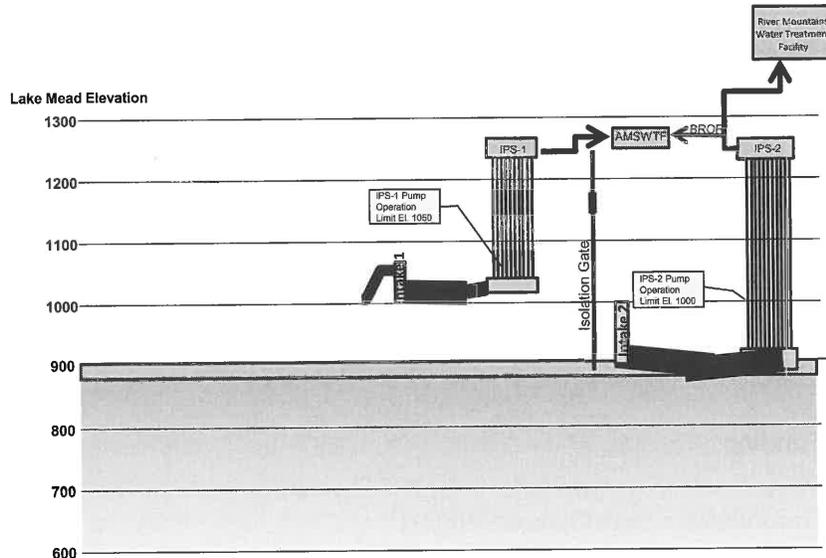
Committee Focus

The IRPAC evaluated the probability of Lake Mead reaching 1,000 feet and its impacts to the SNWA.

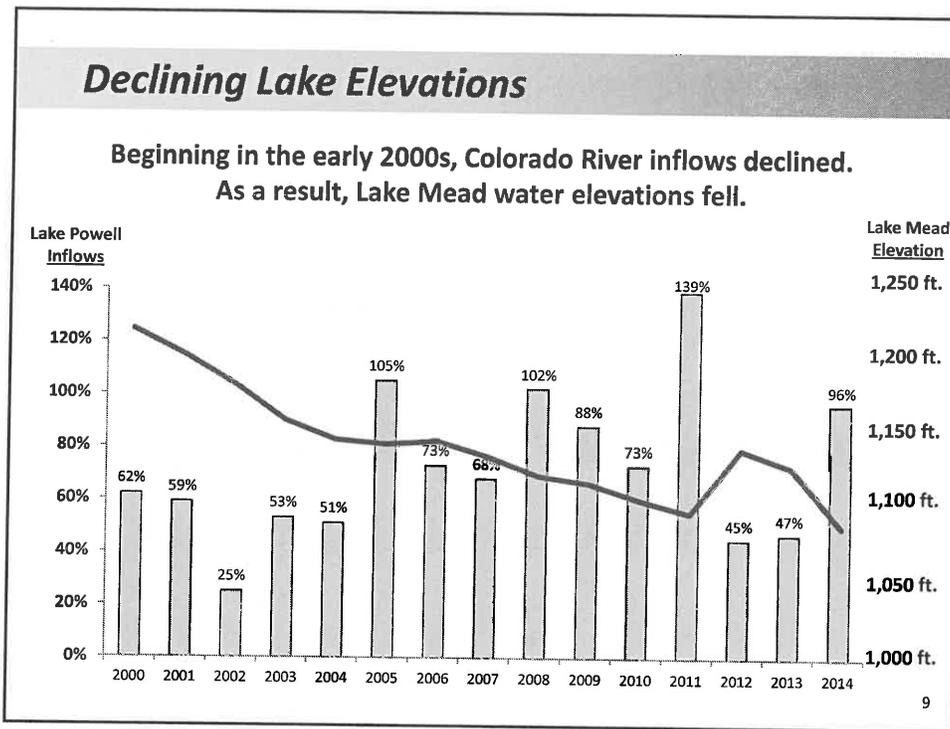
- Water quality
- Reduced operating flexibility
- Access to water supplies (access lost at 1,000 feet)
- Additional treatment costs
- New facility costs
- Supplemental resource costs

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Existing SNWA Intake System



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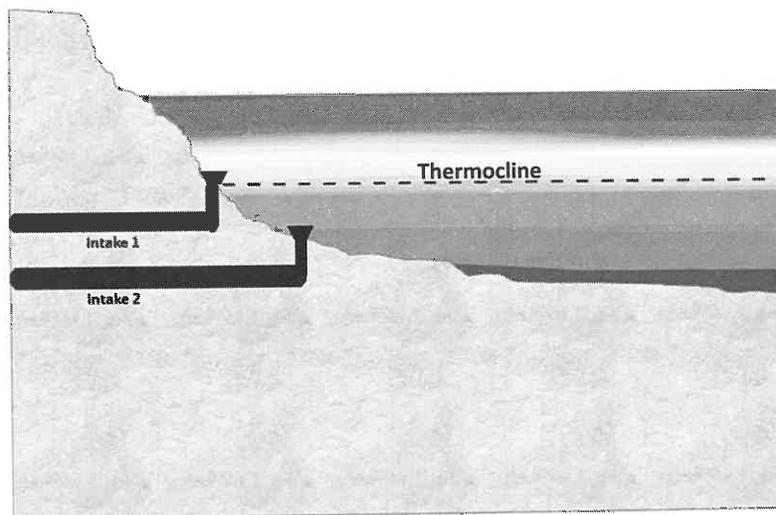


Committee Finding

The risk of Lake Mead's elevation falling below 1,000 feet is not acceptable to our community due to the impacts on water delivery and resource availability.

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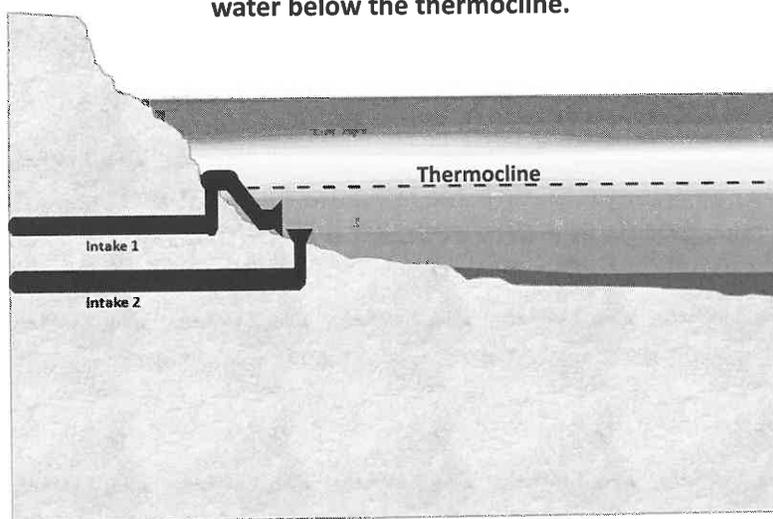
SNWA Intake System (2004)



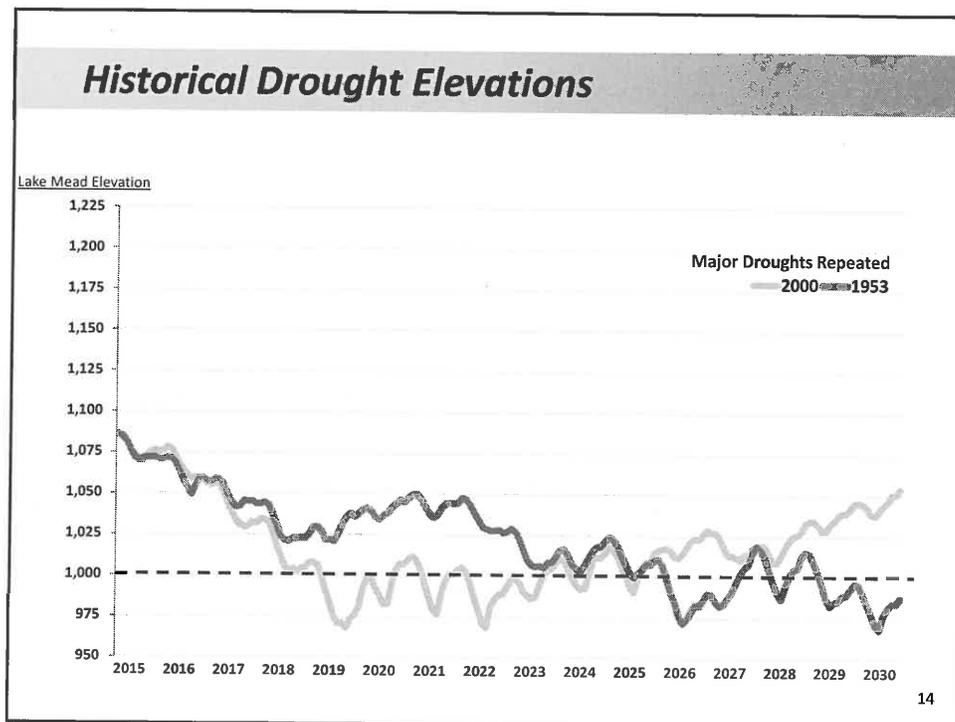
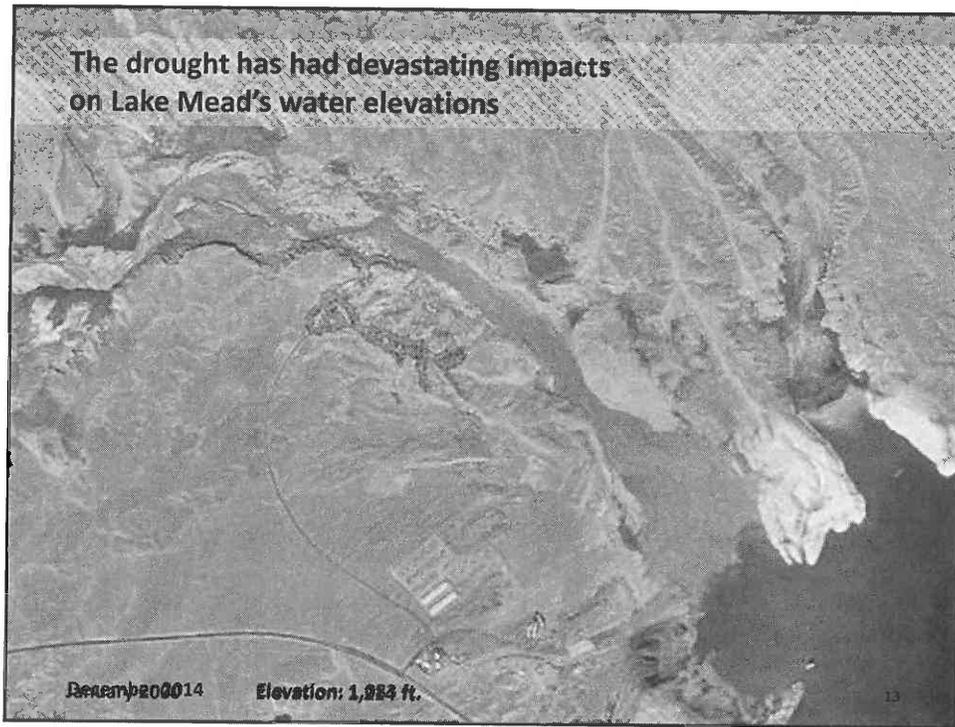
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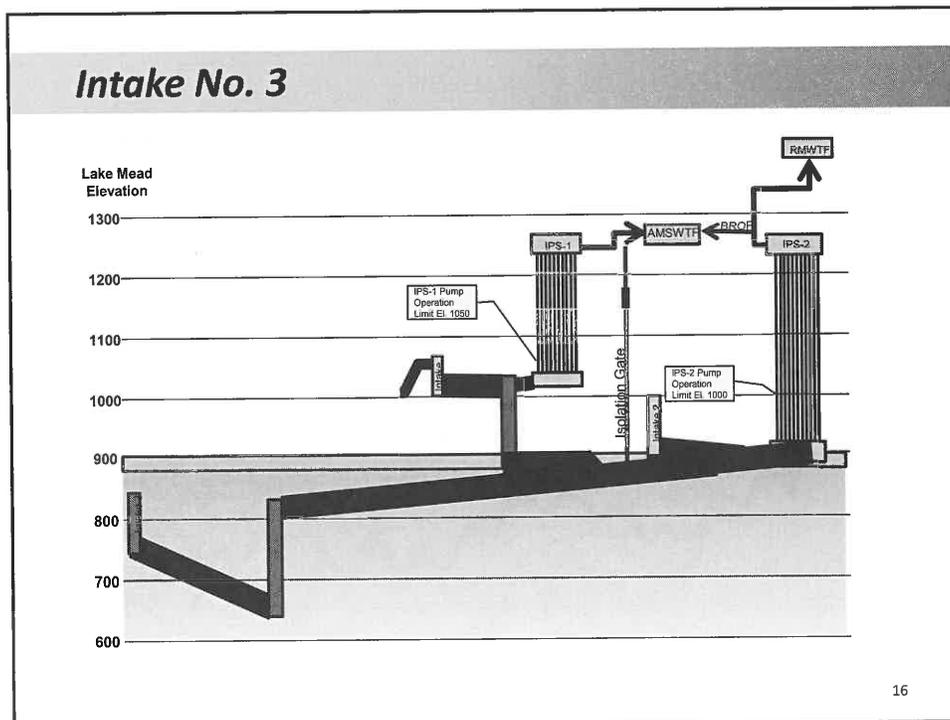
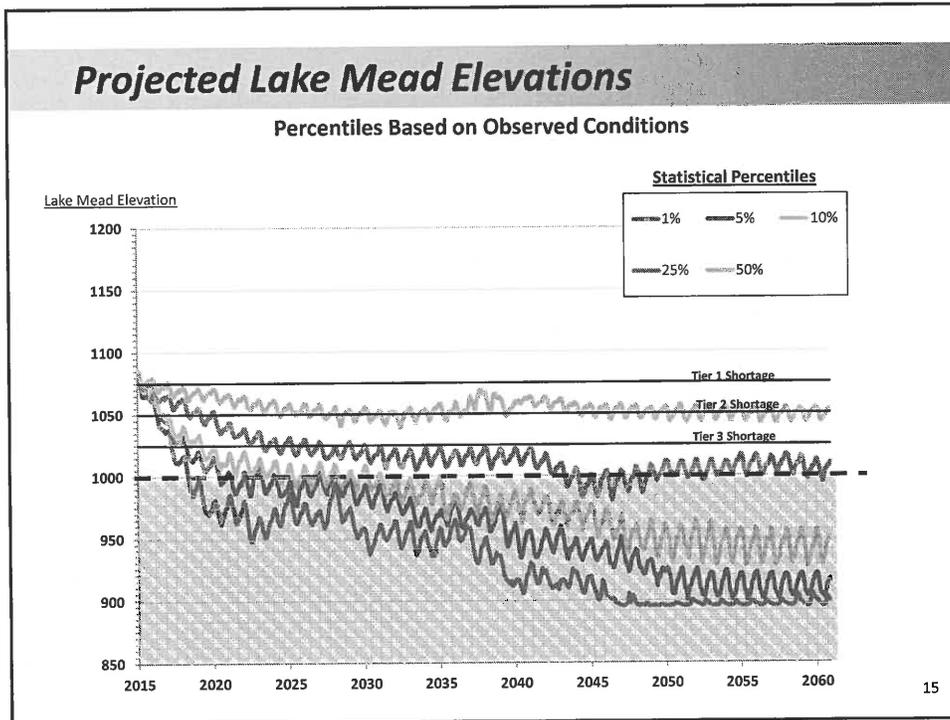
SNWA Intake System (Water Quality Protection)

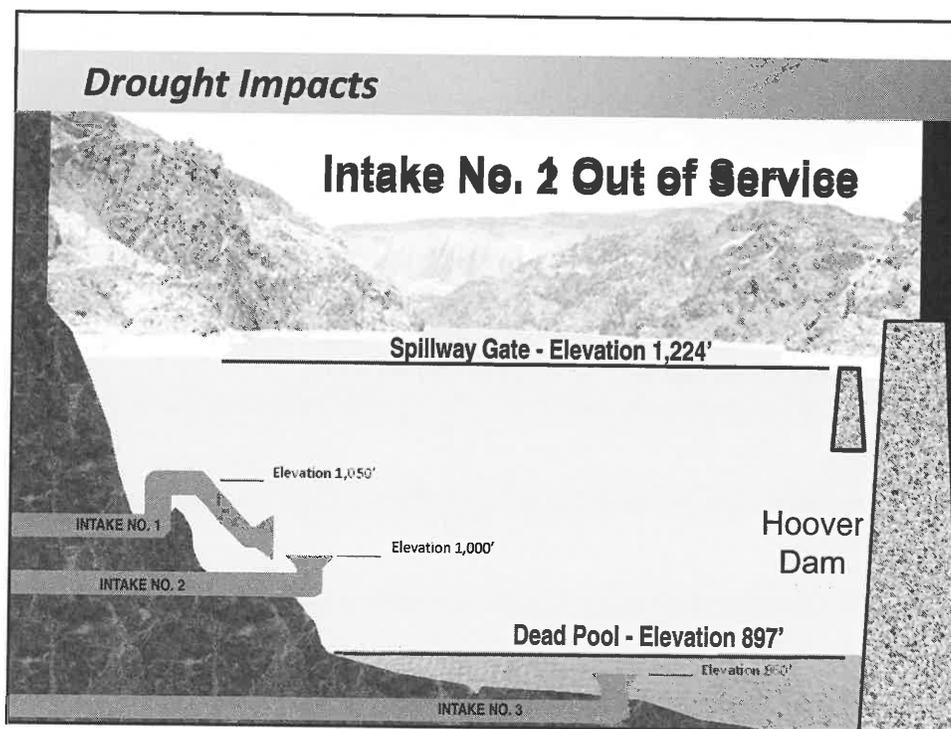
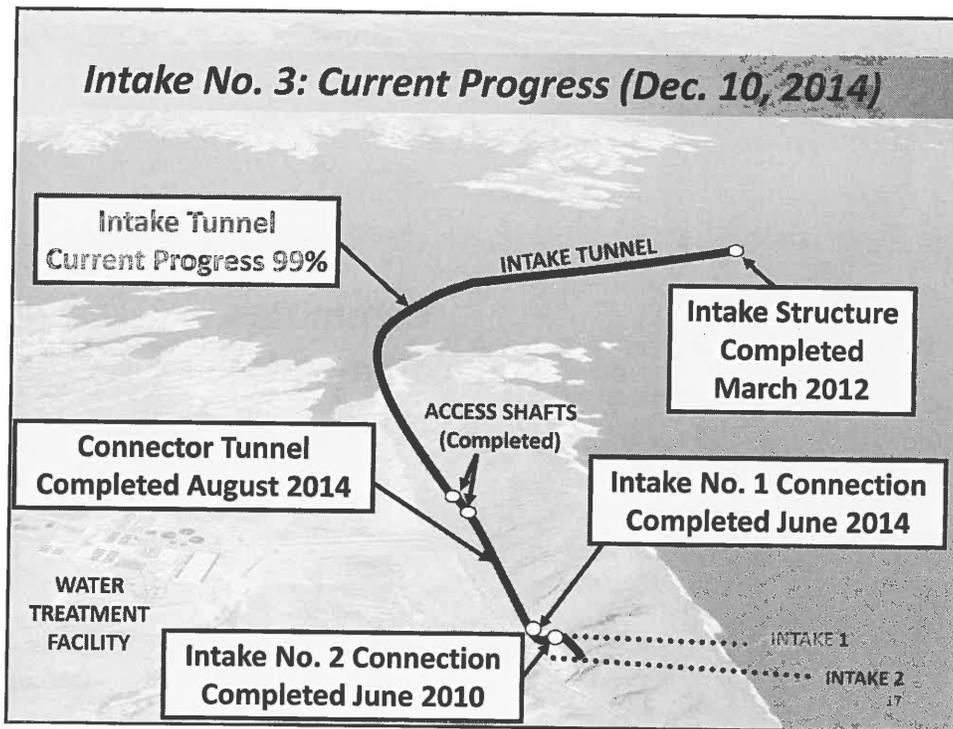
The intake extension allowed SNWA to access water below the thermocline.

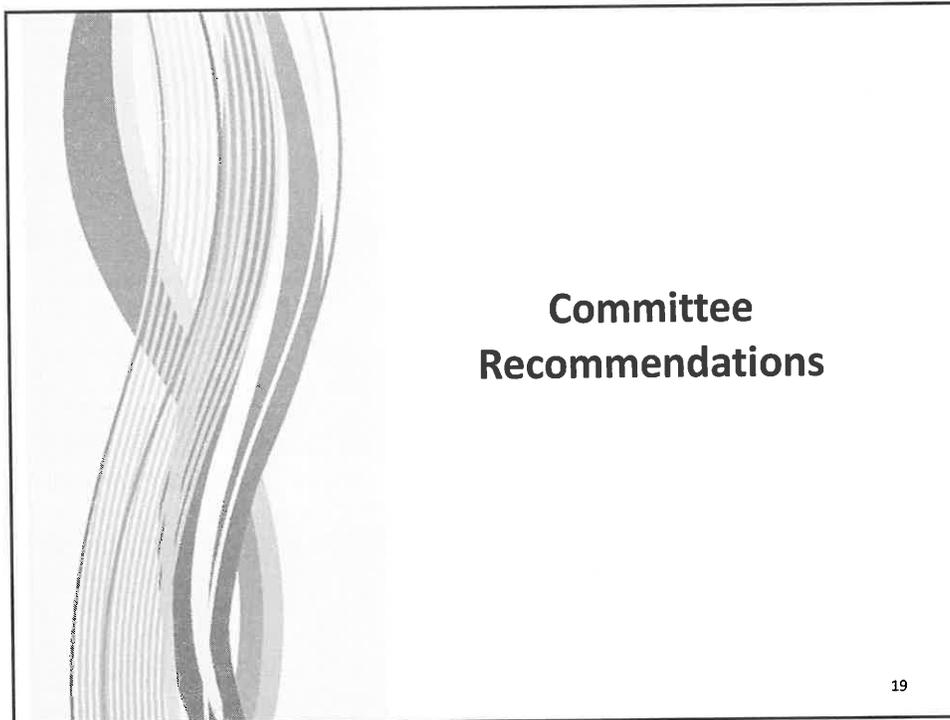


12









**Recommendation #1
CONSERVATION – GPCD Goal**

RECOMMENDATION #1: Evaluate an increased water conservation target upon achieving the currently established goal of reducing gross water usage to 199 Gallons Per Capita Per Day (GPCD) by 2035.

20

Investing in Conservation

The Southern Nevada Water Authority has invested more than \$200 million in conservation measures:

- Direct customer incentives
- Administrative support of conservation programs
- Community education and outreach

Progress on the current conservation goal has been steady and, once reached, IRPAC has requested that the Board set a new goal.

21

Recommendation #2 CONSERVATION – Gross & Net Water Consumption

RECOMMENDATION #2: Present water usage information to the Board of Directors and the community in both “gross” and “net” terms for the purposes of 1) more accurately communicating the water resource implications associated with various conservation measures, and 2) improving comparability of our community’s water consumption with that of other communities.

22

Use of GPCD to Measure Progress

Gallons Per Capita Per Day (GPCD) is the most common method of tracking water efficiency. However, it has limitations:

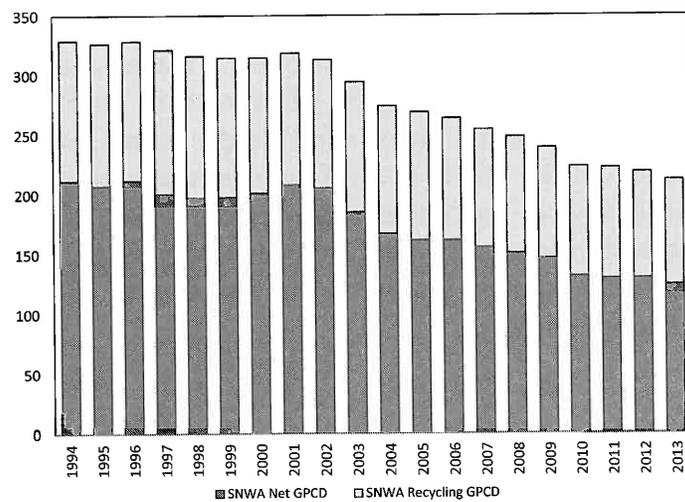
- No standard formula among cities
- Doesn't account for 40 million visitors (300K+ annualized)
- Doesn't reflect indoor water recovery
- Doesn't help communities prioritize initiatives

The "Gross" versus "Net" distinction has implications for the prioritization of conservation programs and communications

- Gross GPCD is valuable in evaluating facilities because it reflects deliveries
- Because Net GPCD reflects water recycling, it is useful when considering the impact of conservation initiatives on the community's "water footprint"

23

SNWA Gross v. Net GPCD



24

Recommendation #3
RESOURCES - Colorado River System Conservation Projects

RECOMMENDATION #3: Continue to partner with other Colorado River Basin States to undertake system conservation projects designed to protect critical elevations in Lake Powell and Lake Mead, conditional upon the identification of mutually agreeable projects and shared funding responsibilities.

25

Recommendation #3
RESOURCES - Colorado River System Conservation Projects

- **Colorado River System Conservation Agreement**
- **Memorandum of Understanding**
Dec. 10 SNWA Board agenda

26

Recommendation #4
FUNDING – Colorado River System Conservation Projects
To Be Funded as a One-time Capital Expenditure

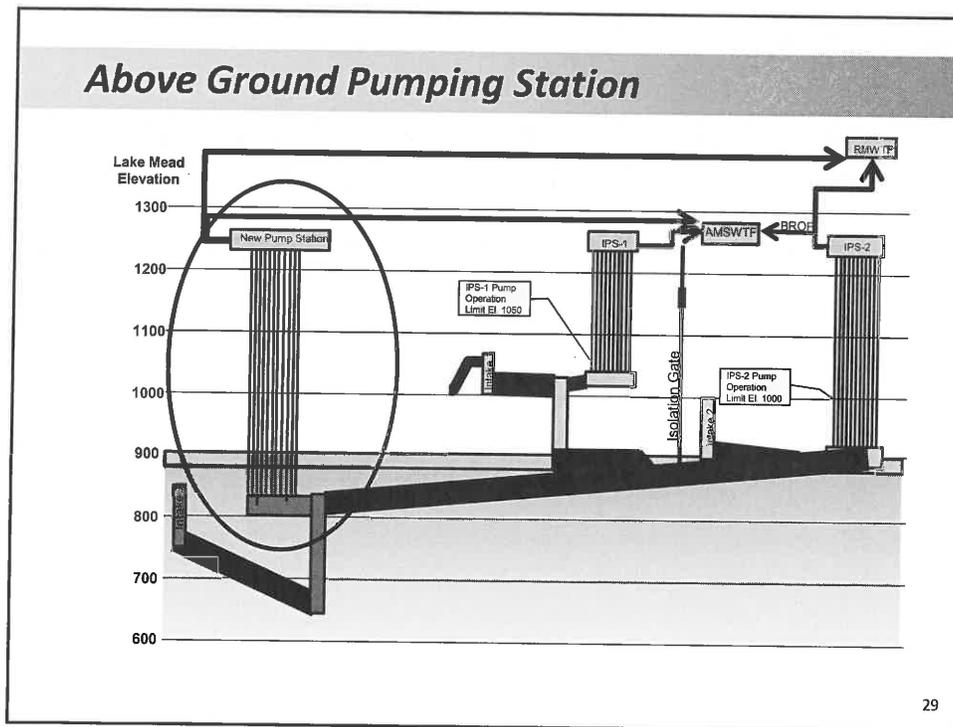
RECOMMENDATION #4: Classify expenditures associated with Colorado River system conservation projects as one-time capital expenditures, thereby making funds available for these costs from Connection Charge revenues as identified in Recommendation Nos. 7 and 8 from the September 2013 Integrated Resource Planning Advisory Committee Recommendations Report.

27

Recommendation #5
FACILITIES – Low lake level pumping station

RECOMMENDATION #5: Begin design and construction of a new low lake level pumping station within the swiftest feasible timeframe.

28



Above Ground Pumping Station

Low Lake Level Pumping Station Tentative Details:

- Design for 900 million gallons per day capacity
- Pump from 875 feet

The pumping station would be constructed to provide replacement capacity in the event Intake Pumping Station Nos. 1 and 2 are offline due to low lake levels – not to accommodate growth.

30

Recommendation #6
FUNDING – Generate needed revenue for the construction of a new water pumping station

RECOMMENDATION #6: Generate needed revenue for the construction of a new low lake level water pumping station exclusively through fixed charges based upon meter size.

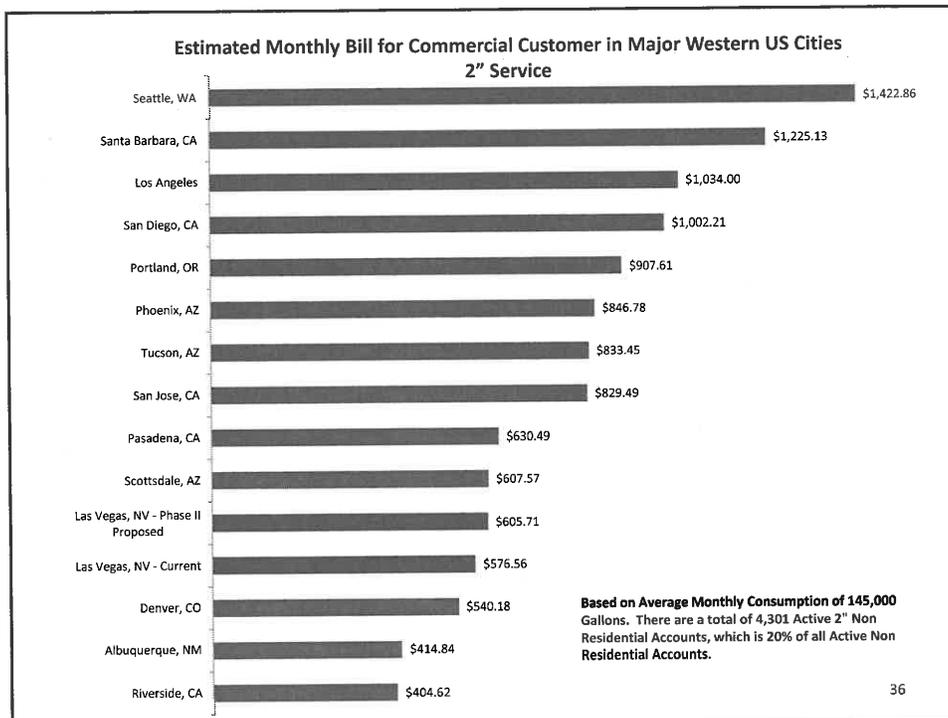
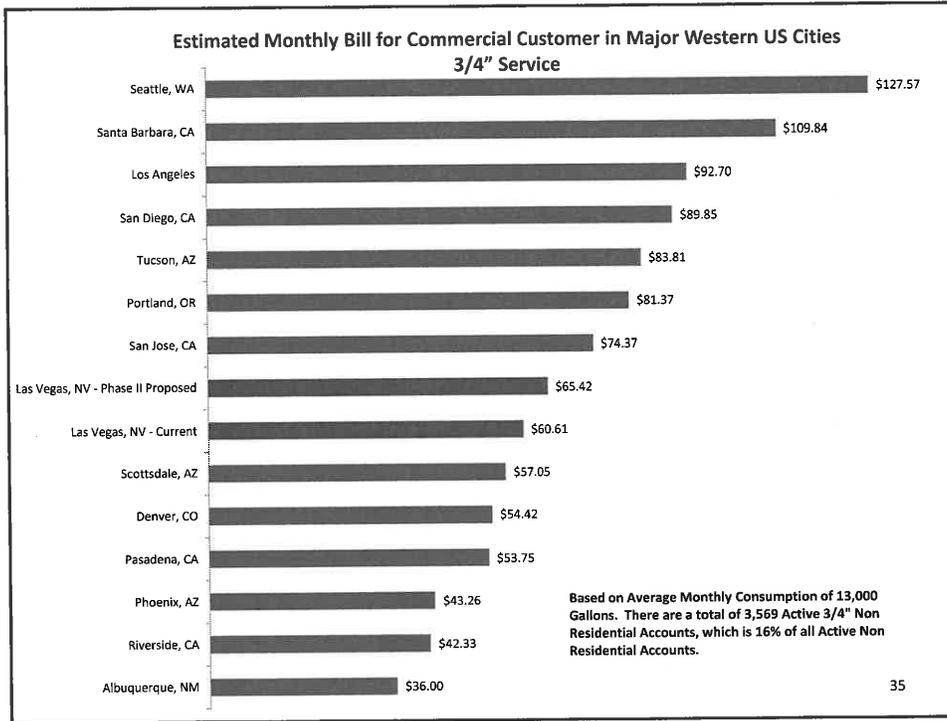
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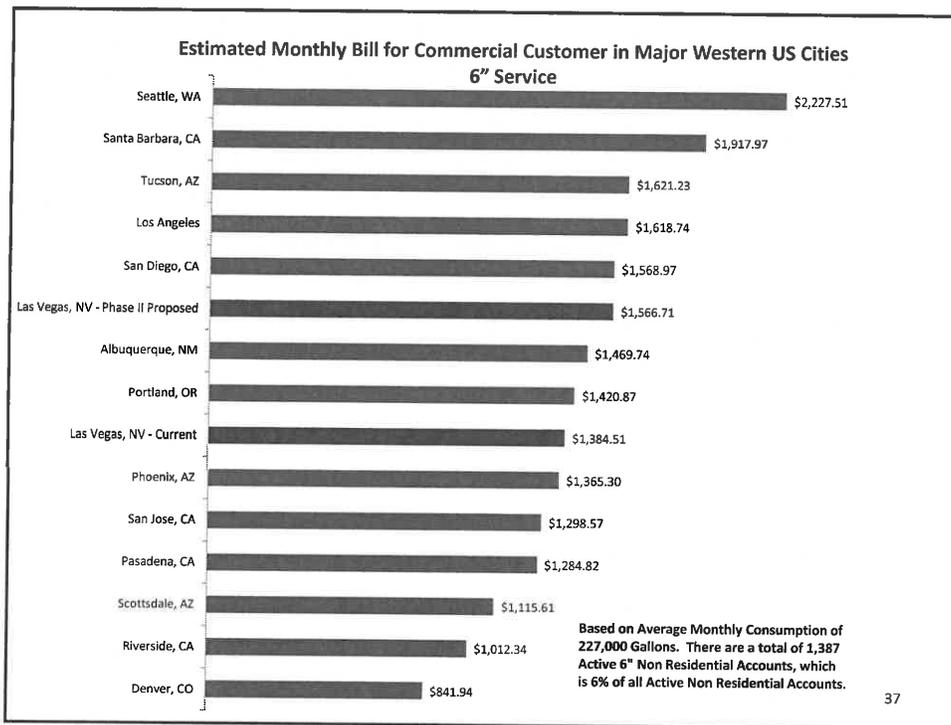
New Pump Station Estimated Cost

Rate Model Assumptions:

- Cost Estimate = \$650 million
- Bond Issuances of \$490 million in 2016, and \$130 million in 2019
- Connection Charge revenues above \$16.1 million a year and Fund Balance above \$280 million used to fund \$30 million in year one for design and engineering (consistent with Phase 1 recommendations)
- Schedule bond issuances to optimize the use of resources and minimize interest costs (June 2016 and June 2019)

32





**Recommendation #7
FUNDING – Phase in the increase**

RECOMMENDATION #7: Phase in the increase to fixed monthly charges over a three-year period.

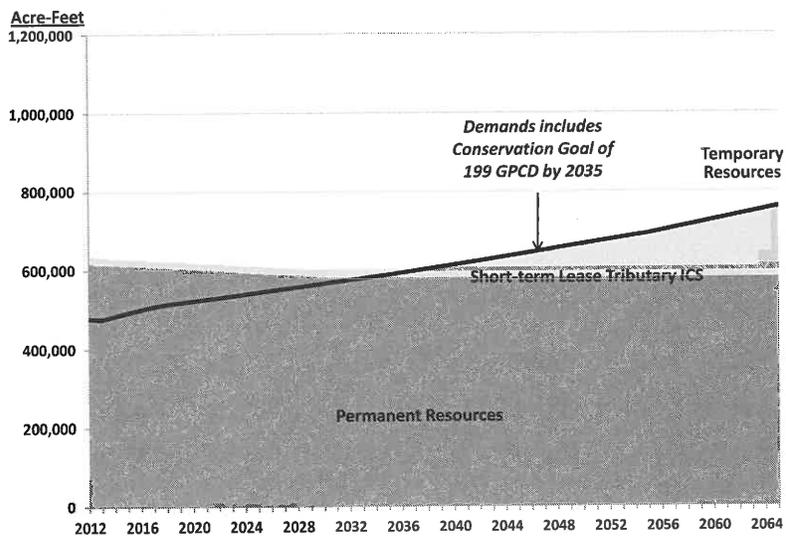
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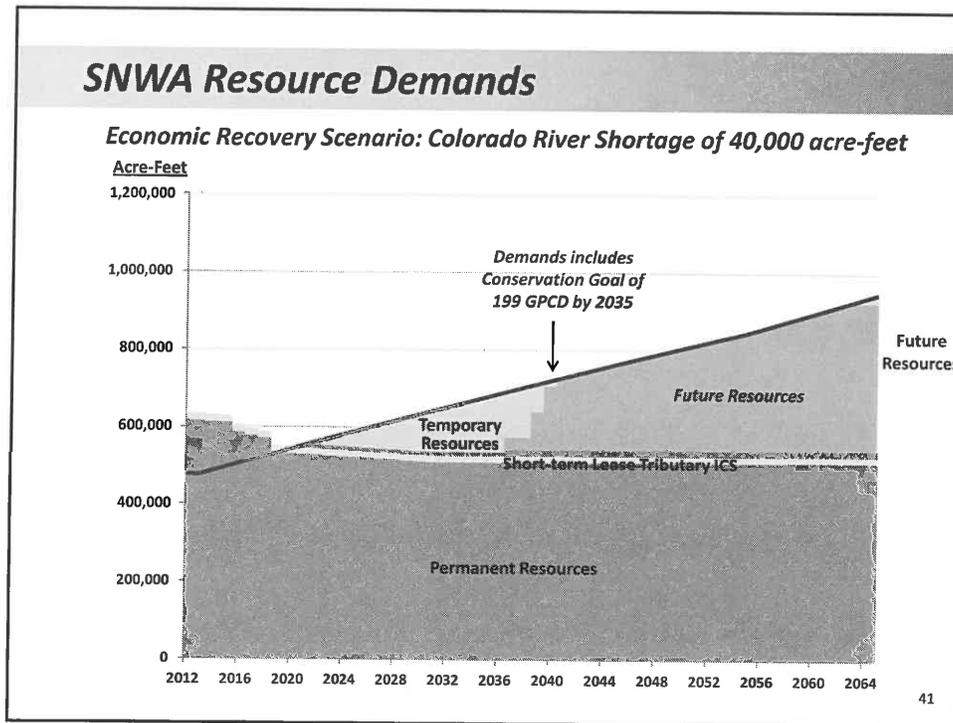
**Recommendation #8
RESOURCES – Groundwater Development Project**

RECOMMENDATION #8: Continue to include the Clark, Lincoln and White Pine Counties Groundwater Development Project within the SNWA’s Water Resource Portfolio with future resource options.

SNWA Resource Demands

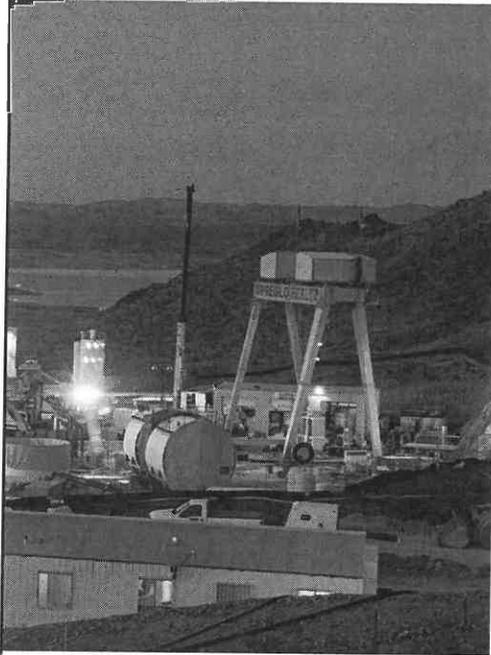
CBER Scenario: Colorado River Normal Conditions





- ### Next Steps
- Work with member agencies to implement recommendations.**
- Business Impact Statement process
 - Public hearings
- Educate community about IRPAC process and recommendations.**
- Website updates
 - Bill estimators
 - Water bill inserts
 - Radio advertisements
 - Informational public meetings
 - Speakers bureau
 - Press releases and media
 - Social media
 - Newsletters
- 42

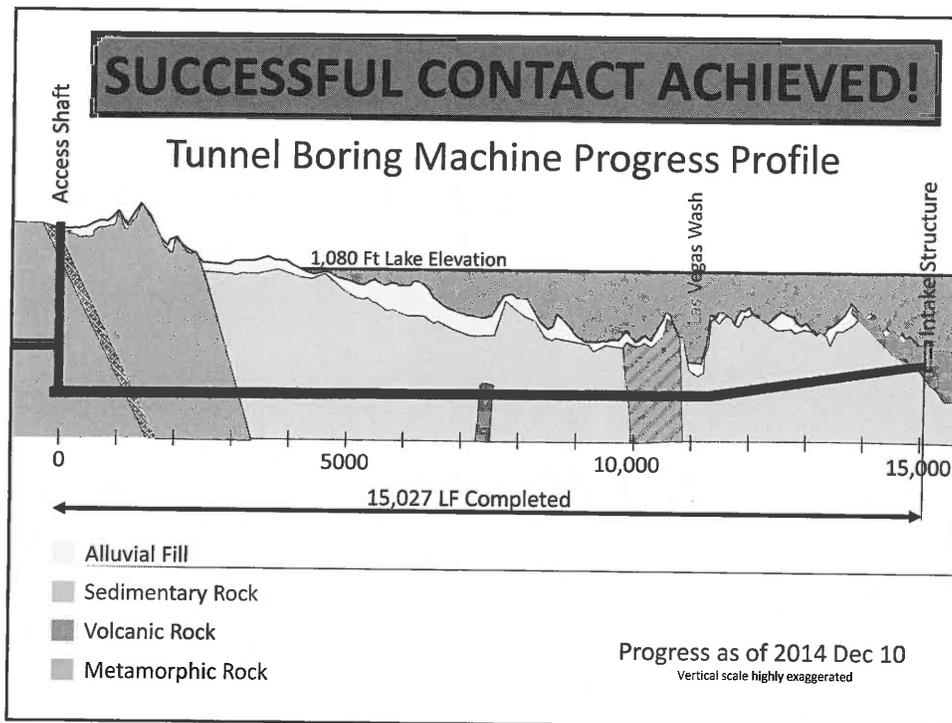




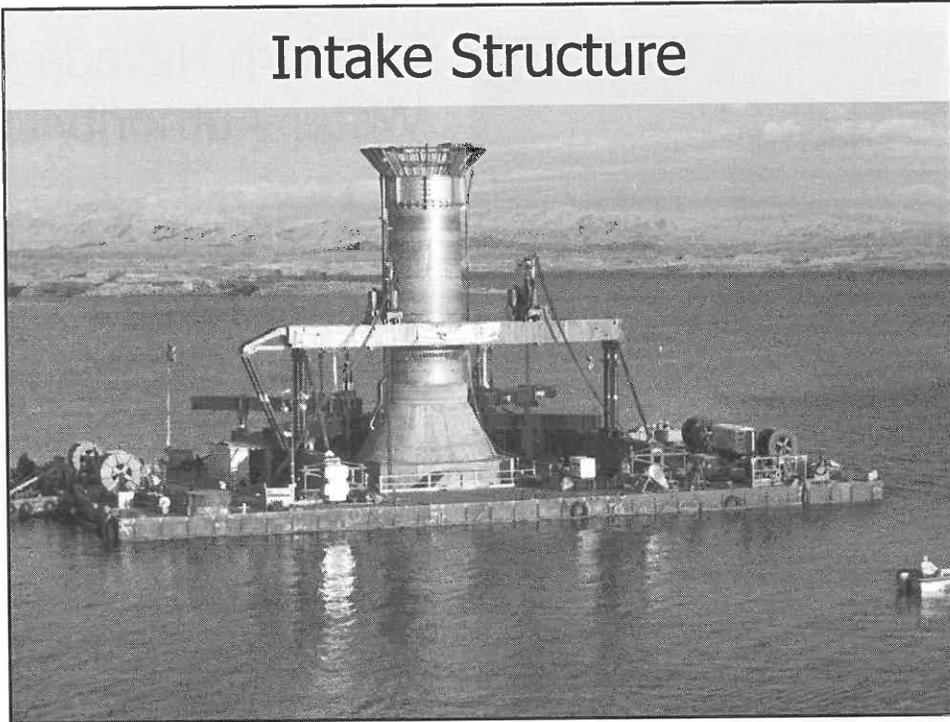
Southern Nevada Water Authority

Lake Mead Intake No. 3 Update

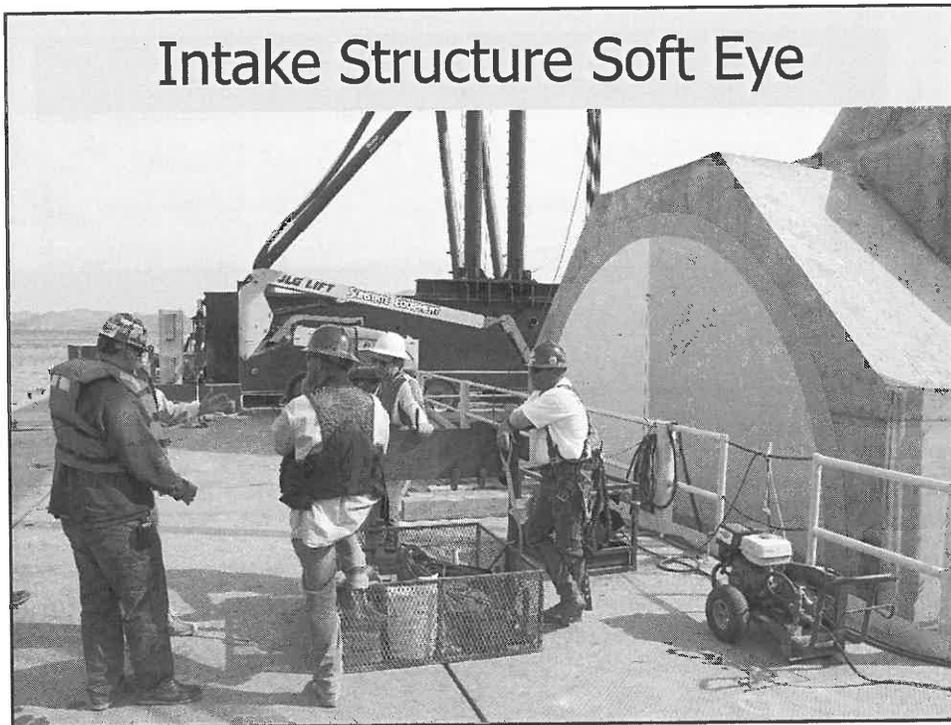
SNWA Board of Directors
December 10, 2014

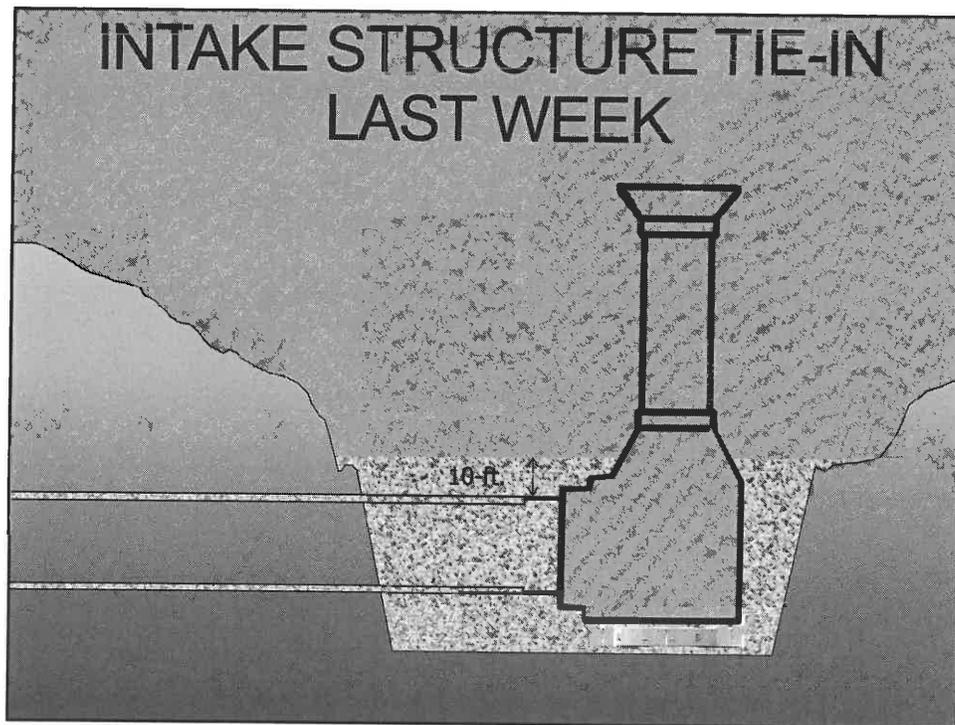
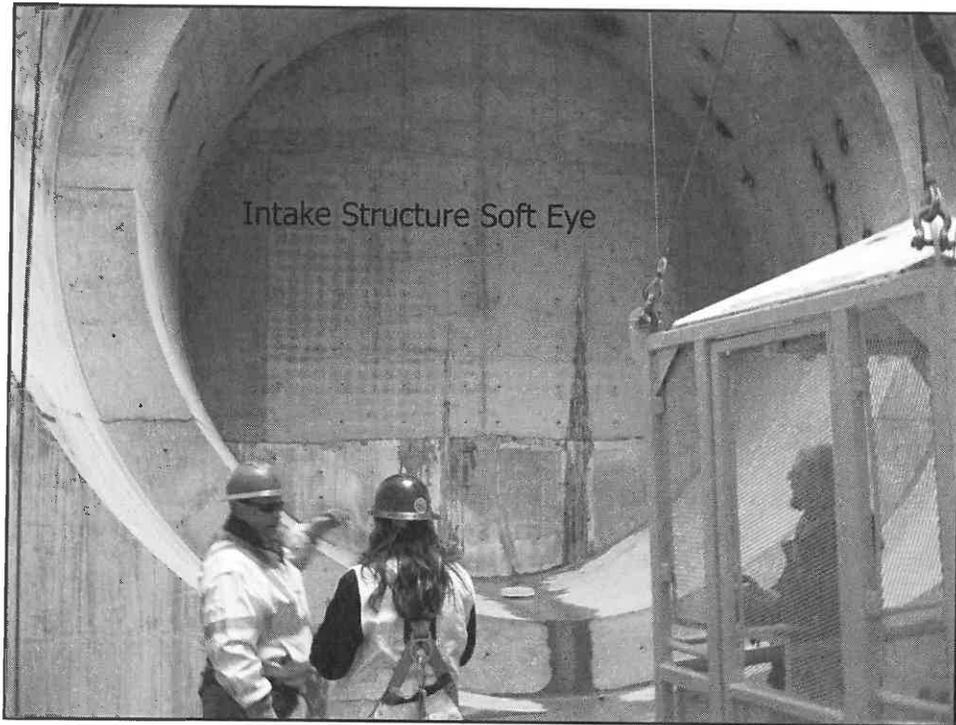


Intake Structure

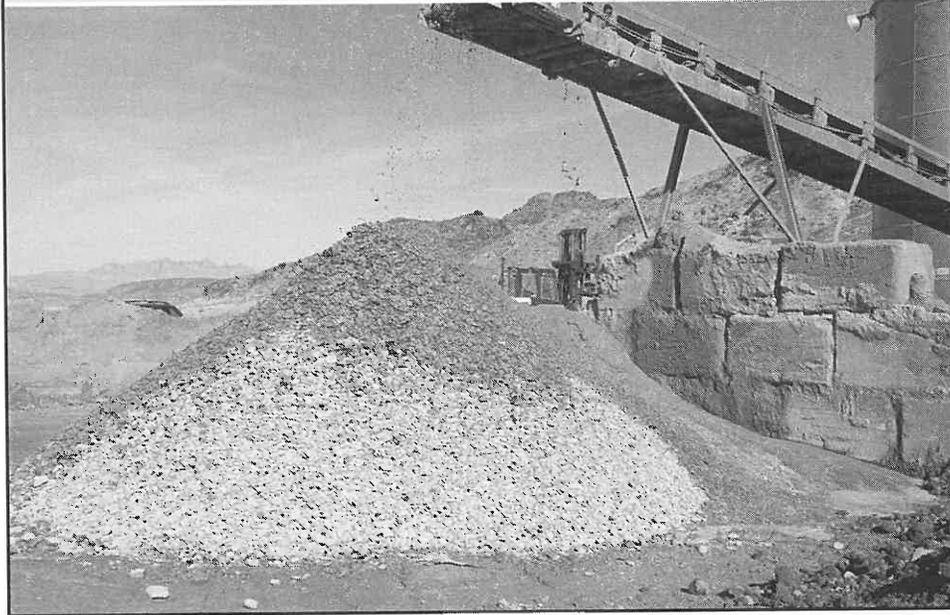


Intake Structure Soft Eye

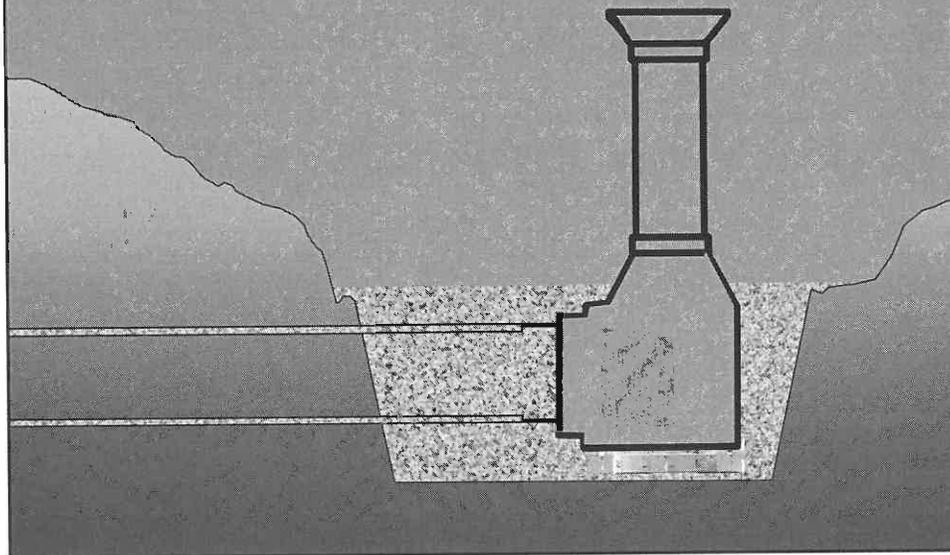


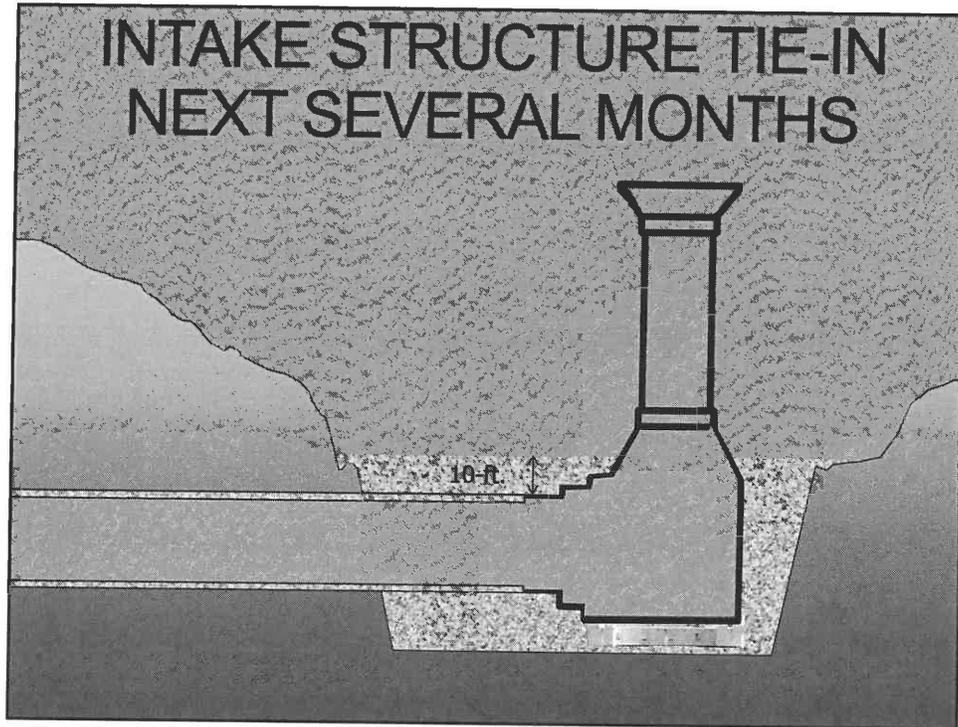


Excavated Concrete



INTAKE STRUCTURE TIE-IN
NOW AND NEXT FEW HOURS

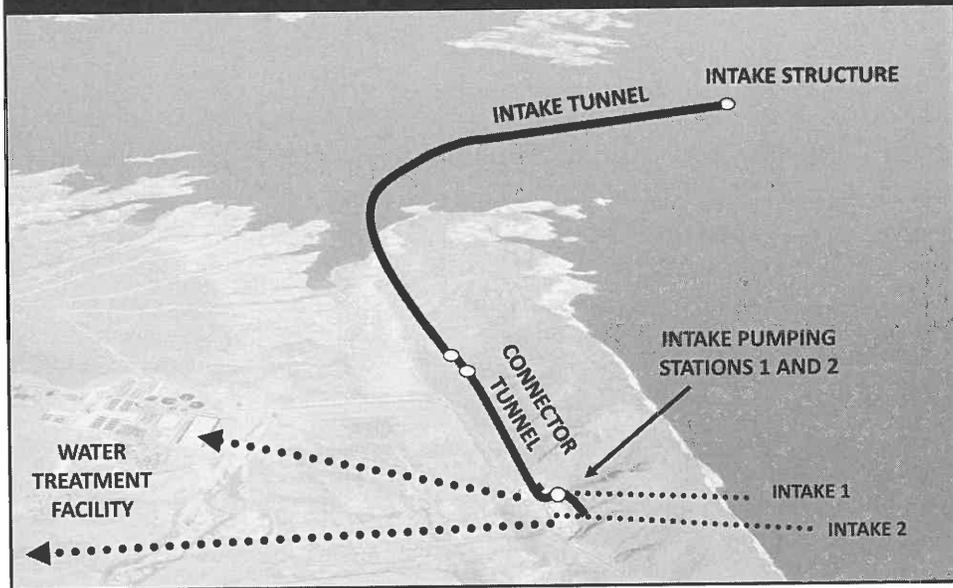




Work To Do After Docking

- Install temporary bulkhead and drain water
- Weld TBM outer shield to Intake Structure
- Grout around outer shield
- Remove TBM cutter head and internal equipment
- Install utility pipes from treatment facility to Intake Structure
- Temporarily cap Intake No. 1 and dewater connector tunnel
- Remove temporary bulkhead in connector tunnel
- Fill tunnel with water
- Remove temporary bulkhead on Intake Structure

Water Deliveries to the Community



Questions?

