Agenda

- Introduction to Montecito Water District
- Our Water Sources & the Challenges
- Water Supply Analysis
- Water Supply Agreement with City of Santa Barbara
- Rate Study 2020
- Q&A
Executive Summary

FACTS

- Water Supplies were insufficient during the recent historic drought
- Relying heavily on supplemental water (past practice) proved inadequate

RECENT ACTIONS TAKEN

- Developed Plan (UWMP 2015) targeting local reliable water supplies
- Enhanced water supply reliability through participation in regional groundwater banking (Semitropic)
- Focused conservation (voluntary)
Executive Summary

PROBLEM

- Recent water supply reliability enhancements alone are not enough
- Water Supplies are projected to be insufficient in future due to regulatory, environmental, engineering and climatic factors

WATER SUPPLY ANALYSIS

- *Future Water Demand & Water Supply Options 2020 Update* prepared
- Considers various challenges impacting future water supply availability
- Indicates future shortages if past water management strategies continue
- Near-term practical solutions evaluated
- Identified WSA w/ City as preferred solution for meeting future demands
Executive Summary

**RECOMMENDED SOLUTION**
- Continued Conservation (aligns supply & demand, regulatory compliance)
- Participation in Water Supply Agreement w/ City of Santa Barbara for 1,430 acre feet per year of local reliable water supply

**FINANCIAL IMPACT**
- Modest revenue increase needed (2.8% per year)
- 56% customers will experience a decrease/no change in their monthly water bills
- Surplus condition desired over shortage: Drought proofing the District will likely result in surplus water supplies for banking or potential selling opportunities
- Future rate impacts will be lessened by ability to lease or sell excess SWP supply
The mission of Montecito Water District is to provide an adequate and reliable supply of high quality water to the residents of Montecito and Summerland, at the most reasonable cost.
About the District

- Incorporated on November 10, 1921
- Serves communities of Montecito & Summerland
- Service Area 9,888 acres (15.4 Square Miles)
- Population served ±11,440
- Number of service connections ±4,600
- Customer Base 92% SFR
- Current annual water sales ±3,750 AF
- Total annual revenue ±$20 M
District Infrastructure

- Jameson Lake & Juncal Dam
- Wells and Pump Stations
- ±4,600 Service Connections
- ±114 Miles of Distribution Pipes
- Nine Reservoirs
- 2 Water Treatment Facilities
Customer Water Use (Demand)

- Historically varied from 6,200 to 3,100 AFY
- Nearly 50% demand reduction during recent drought (Water Supply Shortage)
- Current demands have increased over drought usage to approx. 3,750 AFY
- Factors influencing continued reduced water use:
  - Permanent changes in customers water use behaviors
  - Installation of drought tolerant landscaping
  - Use of private wells
- Customer Conservation remains at 40%
- Additional reduction in water use may be difficult to achieve
- Further reducing use could have significant impact on community character
Diversified Water Sources

Local Surface Water

Groundwater

Imported from SWP

Our Water Sources & the Challenges
Our Water: Current Sources of Supply

- Cachuma Project
- Regional Surface Water
- Groundwater
- Local
- State Water Project
- Imported Surface Water
- Doulton Tunnel
- Local Infiltration Water
- Jameson Lake
- Local Surface Water
- Supplemented Water
- Imported Water

Our Water Sources & the Challenges
The Challenges

Future Supply < Future Demand

Changing Conditions, Climate Change and Drought

Changing Regulations

Costs Rising

Our Water Sources & the Challenges
The Challenges

- Future Supply < Future Demand
- Climate Change – More Severe Droughts predicted
- Decreasing Capacity – Siltation
- Conveyance Limitations
- Pending Environmental Actions
- New Regulatory Requirements
- Water Quality (Droughts & Wildfires)
- Cost Uncertainty
- Earthquake Risks – Levee Break / Tunnel Collapse
Our Water: Current Sources of Supply

- **State Water Project**
  - Imported Surface Water

- **Supplemental Water**
  - Imported Water

- **Cachuma Project**
  - Regional Surface Water

- **Doulton Tunnel**
  - Local Infiltration Water

- **Jameson Lake**
  - Local Surface Water

- **Groundwater**
  - Local

**ALL EXPERIENCING SIGNIFICANT CHALLENGES REDUCING AVAILABILITY**
Our Water: Current Sources of Supply

Supplemental Water
Imported Water

Cachuma Project
Regional Surface Water

Jameson Lake
Local Surface Water

State Water Project
Imported Surface Water

Doulton Tunnel
Local Infiltration Water

Groundwater
Local

ALL RAINFALL DEPENDENT
# Supply Availability by Source (AFY)

<table>
<thead>
<tr>
<th>Source</th>
<th>Original Allocation</th>
<th>Historical Average Delivery</th>
<th>15 yr. Average Delivery</th>
<th>Projected long-term Average</th>
<th>% Change (Hist. vs Proj.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jameson Lake</td>
<td>Up to 2,000</td>
<td>1,350</td>
<td>980</td>
<td>1,080</td>
<td>-20%</td>
</tr>
<tr>
<td>Doulton Tunnel</td>
<td>-</td>
<td>500</td>
<td>365</td>
<td>420</td>
<td>-16%</td>
</tr>
<tr>
<td>Groundwater</td>
<td>-</td>
<td>230</td>
<td>400</td>
<td>260</td>
<td>-</td>
</tr>
<tr>
<td>Cachuma</td>
<td>2,651</td>
<td>2,500</td>
<td>2,225</td>
<td>1,590</td>
<td>-36%</td>
</tr>
<tr>
<td>State Water</td>
<td>3,300</td>
<td>2,150</td>
<td>1,850</td>
<td>1,353</td>
<td>-37%</td>
</tr>
</tbody>
</table>

Our Water Sources & the Challenges
2015 Urban Water Management Plan

- Water Supply Planning Document filed in 2017
- 3 Pronged Strategy to Improve Water Supply Reliability
  1. Enhance local/regional **Groundwater Storage (Semitropic)**
  2. **Manage Demand** through ongoing **Voluntary Conservation**
  3. **Develop Additional Local Drought-proof Supplies** (recycled, desalinated and/or other long-term purchase/imported water)
    - Established a goal of achieving local and reliable supplies by 2025
Reliability Analysis

- *Future Water Demand & Water Supply Options 2020 Update*, Prepared by Dr. Bachman

**Purpose of Analysis**
- Evaluate reliability of existing supplies considering hydrologic, environmental and regulatory challenges
- Determine if additional supplies are needed to improve supply reliability
- Analyze impacts of near-term practical water supply solutions
  - WSA with City
  - Additional Groundwater Banking
  - Continued Supplemental Water Purchases

**Methodology for Analysis**
- Model constructed
- Climatology of 1942 through 2019 model, updated supply availability, projected future demands
Reliability Analysis

- Various water supply scenarios considered involving:
  - Current and Future Demands
  - With and without the Water Supply Agreement
  - Alternatives - Additional Groundwater Banking and Supplemental Water Purchases
## Reliability Analysis

<table>
<thead>
<tr>
<th>Scenario</th>
<th>A. Unsourced Demand</th>
<th>B. Local Sources</th>
<th>C. Improved Reliability</th>
<th>D. Average Supply Costs (1-17 yrs/17+ yrs)</th>
<th>E. Water Debt Incurred</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CURRENT Demand – Current Supplies w/ Future Availability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#1 – Status Quo</td>
<td>Moderate</td>
<td>Low</td>
<td>None</td>
<td>$2,739 / $1,843</td>
<td>Moderate</td>
</tr>
<tr>
<td>#2 – w/ WSA</td>
<td>None</td>
<td>High</td>
<td>High</td>
<td>$3,158 / $1,751</td>
<td>None</td>
</tr>
<tr>
<td><strong>FUTURE Demand – Current Supplies w/ Future Availability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#3 – Status Quo</td>
<td>High</td>
<td>Low</td>
<td>None</td>
<td>$2,615 / $1,852</td>
<td>High</td>
</tr>
<tr>
<td>#4 – w/ WSA</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>$3,003 / $1,733</td>
<td>Low</td>
</tr>
<tr>
<td>#5 – Additional Water Banking</td>
<td>High</td>
<td>Low</td>
<td>Moderate</td>
<td>$2,861 / $2,009</td>
<td>High</td>
</tr>
<tr>
<td>#6 – Supple. Water Purchases</td>
<td>High</td>
<td>Low</td>
<td>None</td>
<td>$2,615 / $1,852</td>
<td>High</td>
</tr>
</tbody>
</table>
Reliability Analysis Results

- **Study Conclusions**
  - Water Supply Agreement performed best against criteria
  - Average supply costs of scenarios are relatively comparable
    - W/ WSA, costs are slightly higher initially but slightly lower when capital is paid off after year 20
    - Future costs and availability of supplemental water to meet demands, fill bank and pay down water debt are unknown
  - Unsourced demand (water shortages) exists under all scenarios
  - Pipeline constraints prevent supplemental water deliveries needed to avoid all shortages
  - Local supplies such as the WSA are important in reducing earthquake risk

- **Analysis Recommendation**
  - Obtain locally sourced water supply (Water Supply Agreement with City) resulting in a significant improvement in water supply reliability for the community

- Final report is available on the District website (www.montecitowater.com)
The Opportunity

Secure a Long-term Water Supply Agreement with the City of Santa Barbara
Background

2014
• City begins reactivation of desalination plant
• District requests participation

2014-2018
• District and City in On & Off Negotiations

2018
• Desalination plant begins full production (3,125AFY)
• Began focused development of Term Sheet

Jan 2019
• District Board and City Council approve Term Sheet

May 2020
• District and City Staff finalize draft Water Supply Agreement

The Opportunity: WSA
Terms and Conditions of Proposed WSA

Roles of MWD
- Commit to purchase water for term of the Agreement irrespective of hydrologic conditions
- Pay for committed volume of water in every year, whether or not water is needed

Roles of the City
- Commit to supply water for term of the Agreement
- Own, operate, and maintain the Desalination Plant and Conveyance Pipeline
- Control decisions over Desalination Plant and Conveyance Pipeline operations

Water Delivery Commitment
“Take or Pay” Purchase Commitment

The Opportunity: WSA
Terms and Conditions of Proposed WSA

- **Term of Agreement** – 50 Years
  - Water supply initiatives typically long term
  - Examples: Jameson (90 yrs), Cachuma (65 yrs), Cater Treatment (43 yrs), State Water (22 yrs)

- **Volume of Water** – 1,430 acre-feet per year
  - Nearly 40% of Montecito’s current customer demand
  - District’s only rainfall independent supply, nearly 100% reliable

- **Source of Supply / Water Quality** – Any City potable water source
  - Desalination Water serves a basis for Contract Water

- **Desalination Plant Operation** – City must maintain Plant in ready-to-produce state

- **Commencement of Deliveries** – January 1, 2022
Terms and Conditions of Proposed WSA

- **Cost of Water** (Based on 3,125 AF Capacity)
  - Made possible by the Desalination Plant, and its ability to produce water surplus to City needs
  - Water pricing is based on the cost of desalinated water
  - Total Estimated Unit Cost in 2020 dollars is **$3,194 per acre feet**, dropping to ±$1,582 for yrs. 20+
    - For comparison: SWP at 20% allocation in 2020 in excess of $9,000 per acre foot
  - Future Plant Capital Modification – District only responsible for its proportionate share

<table>
<thead>
<tr>
<th>Component</th>
<th>Estimated Cost (2020$)</th>
<th>Estimated Unit Cost ($/AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Capital Charge</td>
<td>$2,305,389</td>
<td>$1,612/AF</td>
</tr>
<tr>
<td>Fixed O&amp;M Charge</td>
<td>$769,848</td>
<td>$538/AF</td>
</tr>
<tr>
<td>Variable O&amp;M Charge</td>
<td>$1,104,602</td>
<td>$772/AF</td>
</tr>
<tr>
<td>Administrative Charge</td>
<td>$150,372</td>
<td>$105/AF</td>
</tr>
<tr>
<td>Development Fee</td>
<td>$237,500</td>
<td>$166/AF</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$4,567,712</strong></td>
<td><strong>$3,194/AF</strong></td>
</tr>
</tbody>
</table>
Benefits of Water Supply Agreement w/ City

Desalination

Guaranteed Supply
Local, Reliable Water
Predictable Cost
Regional Partnership
Seller vs Buyer
Supply Diversification

The Opportunity: WSA
Proposed New Rates 2020

Financial Plan

Water Cost of Service and Rate Study
Proposed New Rates 2020

- Water Rates last updated in 2013
- Costs to provide reliable water service continue to increase
- *Water Cost of Service and Rate Study*, prepared by an independent financial consulting firm, Raftelis
- Developed sound *Financial Plan*
  - Projection of revenues and expenses over 5-years
  - Includes all costs
  - Operation and Maintenance
  - Joint Powers Agency Operating
  - Debt Service
  - CIP - Water Supply and Infrastructure Investments
Proposed New Rates 2020

• Performed detailed *Water Cost of Service Analysis*
  • Verify revenue aligns with the costs of providing service
  • Ensure rates are fair, equitable, and tied to the demand customers place on the water system

• Result is a comprehensive water *Rate Study*
  • An industry best practice to ensure District is able to meet future obligations to our customers.
  • Proposes predictable rate structure for the next 5 years
Supports Water Supply Reliability Initiatives

- Groundwater Banking and Recovery
- Promotes Conservation
- Includes Desalination (WSA)
- Continues Development of Recycled Water
- Modernization of Infrastructure

Rate Study 2020
Financial Plan Findings

<table>
<thead>
<tr>
<th></th>
<th>July 2020</th>
<th>July 2021</th>
<th>July 2022</th>
<th>July 2023</th>
<th>July 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Necessary Annual Revenue Adjustments</strong></td>
<td>2.8%</td>
<td>2.8%</td>
<td>2.8%</td>
<td>2.8%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

- District maximizes efficiencies to keep costs low
- Costs are increasing about 2% annually due to inflation as tracked by the consumer price index in the region
- Costs for imported water and capital needs are increasing as much as 6%.
Water Rates Reflect Real Costs

- Your Monthly Payment
- Customer Service and Billing
- Responsible Operating Reserve Levels
- Operations and Maintenance
- Water Supply and Infrastructure Investments
Rate Structure

Fixed Meter Charge + Variable Volumetric = Monthly Bill

Rate Study 2020
Develop Proposed Rates That:

- Are Simple & Transparent
- Eliminate Surcharges
- Adjust Tiers for Conservation
- Ensure Long-term Financial Health
## Fixed Meter Charges

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>Current</th>
<th>July 2020</th>
<th>July 2021</th>
<th>July 2022</th>
<th>July 2023</th>
<th>July 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4”</td>
<td>$44.59</td>
<td>$46.86</td>
<td>$48.18</td>
<td>$49.53</td>
<td>$50.92</td>
<td>$52.35</td>
</tr>
<tr>
<td>1”</td>
<td>$74.34</td>
<td>$76.69</td>
<td>$78.84</td>
<td>$81.05</td>
<td>$83.32</td>
<td>$85.66</td>
</tr>
<tr>
<td>1 1/2”</td>
<td>$133.79</td>
<td>$135.04</td>
<td>$138.83</td>
<td>$142.72</td>
<td>$146.72</td>
<td>$150.83</td>
</tr>
<tr>
<td>2”</td>
<td>$237.84</td>
<td>$212.83</td>
<td>$218.79</td>
<td>$224.92</td>
<td>$231.22</td>
<td>$237.70</td>
</tr>
</tbody>
</table>

Figures for larger meter sizes available at [www.montecitowater.com](http://www.montecitowater.com).

Rate Study 2020
PROPOSED TIERED VOLUMETRIC RATES

**TIER 1: UP TO 9 HCF / $6.56/HCF**
CA indoor water efficiency standard for family of four

**TIER 2: 10-35 HCF / $11.14/HCF**
Average summer water demand beyond indoor needs

**TIER 3: >35 HCF / $12.31/HCF**
Water use beyond efficient indoor and average summer outdoor

Note: 1 hundred cubic feet (hcf) = 748 gallons.
# Residential Tiers and Volumetric Rates

<table>
<thead>
<tr>
<th>Tier/Block</th>
<th>Volumetric</th>
<th>Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>Proposed</td>
</tr>
<tr>
<td>1</td>
<td>0-25 hcf</td>
<td>0-9 hcf</td>
</tr>
<tr>
<td>2</td>
<td>26-60 hcf</td>
<td>9-35 hcf</td>
</tr>
<tr>
<td>3</td>
<td>61-120 hcf</td>
<td>&gt;35 hcf</td>
</tr>
<tr>
<td>4</td>
<td>&gt;121 hcf</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: 1 hcf = 748 gallons.
<table>
<thead>
<tr>
<th>TYPICAL RESIDENTIAL CUSTOMERS</th>
<th>BILL IMPACT IF NEW RATES ARE ADOPTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSTOMER 1</td>
<td>Monthly Bill Decreases by $11.47</td>
</tr>
<tr>
<td>12 hundred cubic feet/mo.</td>
<td></td>
</tr>
<tr>
<td>CUSTOMER 2</td>
<td>Monthly Bill Increases by $13.72</td>
</tr>
<tr>
<td>23 hundred cubic feet/mo.</td>
<td></td>
</tr>
<tr>
<td>CUSTOMER 3</td>
<td>Monthly Bill Increases by $38.28</td>
</tr>
<tr>
<td>36 hundred cubic feet/mo.</td>
<td></td>
</tr>
</tbody>
</table>
Monthly Bill Impacts - 2020

- 56% Reduce or Remain About the Same
- 73% Decrease or Increase Less Than $20/mo.
- 19% Increase Between $20 and $100/mo.
- 17% Increase Less Than $20/mo.
- 8% Increase More Than $100/mo.

Rate Calculator can be found at www.montecitowater.com/rates2020
Rate Comparison: South Coast Agencies

- MWD
- GWD
- CVWD
- City of SB

Monthly Cost ($) vs. 10 HCF of Water (±7,500 gallons)
- 20 HCF of Water (±15,000 gallons)
- 30 HCF of Water (±22,500 gallons)
- 50 HCF of Water (±37,500 gallons)

Rate Study 2020
Next Steps

- **Public Hearing scheduled for June 25, 2020**
  - Consider adoption of new water rates
  - Consider approval of Water Supply Agreement
- **City Council expected to begin WSA approval process on June 30, with final approval expected in July**
- **If approved:**
  - New Water Rates become effective July 1, 2020
  - Water Supply Agreement deliveries and payment commence January 1, 2022

More information can be found at www.montecitowater.com
Questions?