Creating a Sustainable Water Future for Loudoun County
So That the Grandkids Won’t be Thirsty

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Overview of Loudoun Water
Historical Growth
Source Water Needs
Future Water Storage Projects
Beaverdam Reservoir
Loudoun Water (Loudoun County, VA)
Water, Wastewater & Re-use Authority

Customers
- Water: 230,000
- Wastewater: 127,000
- Re-use: 74,200

Water
- AVG: 24 MGD
- MAX: 43 MGD
Loudoun County’s Growth

**1990s**
- Loudoun population nearly doubled each decade

**2000s**
- Loudoun population nearly doubled each decade

**2000-05**
- 1 in 4 new Washington Metro Area residents moved to Loudoun - 49 new residents per day

**2010-15**
- Loudoun ranks at #15 nationwide with a 20% growth rate of 63,300 people

**Data Centers**
- Since 2000, Loudoun has added nearly 10-million S.F. of data center - largest concentration in the world
1990

Water and Sewer Systems
1995

Water and Sewer Systems

Prince William County
Dulles Airport
Fairfax County
Maryland
Water and Sewer Systems
2005

Water and Sewer Systems
2010

Water and Sewer Systems
2015

Water and Sewer Systems
Growth is Expected to Continue

2015-40
- Population will increase by one-third, bringing another 130,000 residents

2015-40
- Jobs will increase by two-thirds, adding another 110,000 employees

2019
- Washington DC Metro (light rail) to connect Loudoun to nation’s capital

2016
- + 3-million S.F. in construction
- + 5-million S.F. proposed in 4Q 2016 alone

Loudoun Population

- 2015: 363,500
- 2020: 415,000
- 2025: 470,000
- 2030: 493,000
- 2035: 493,000
- 2040: 493,000

Projected
Withdrawal Conditions (Permit)

Sufficient Flow in Potomac River

Low Flow in Potomac River
Regional Considerations
Loudoun/Luck Quarry Reservoirs

<table>
<thead>
<tr>
<th>Quarry</th>
<th>Vol. (Bgal)</th>
<th>Year</th>
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<tbody>
<tr>
<td>A</td>
<td>1.25</td>
<td>2022</td>
</tr>
<tr>
<td>B1</td>
<td>2.5</td>
<td>2035</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>2060</td>
</tr>
<tr>
<td>B2</td>
<td>5</td>
<td>~2065</td>
</tr>
<tr>
<td>D</td>
<td>~12</td>
<td>~2100</td>
</tr>
</tbody>
</table>
1 RESERVOIR AS RESOURCE
   • Demonstrate value of water utility
   • Articulate mission and actions that increase resilience of water supply

2 ECOLOGICAL STEWARDSHIP
   • Healthy ecosystems improve water quality
   • Minimize development impact and increase biodiversity
   • Add outdoor labs or interpretive stations to support mission

3 EDUCATIONAL LANDSCAPES
   • Create a range of landscape types for a diverse community
   • Encourage active play, passive recreation, and open-ended exploration

4 CULTURAL CONNECTIONS
   • Cultivate strategic partnerships
   • Respond to adjacent use and development
   • Improve access based on existing opportunities

CONCEPT PLAN
GUIDING PRINCIPLES
PHASE 1 CONCEPT PLAN

RESERVOIR PARK

Western Access for Future Phase

Peninsula Access for Future Phase

FUTURE FOCUS AREAS WITH LOUDOUN WATER
Thank You

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and

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