WATER SUPPLY AND DEMAND: A REVIEW
Current situational analysis

- What is our service area, inside and outside the city limits?

- What is our current maximum daily production?

- What are our maximum daily demands?
Current situational analysis

- How does sprinkler use affect overall water consumption?

- When and why do we need to plan for more water?

- What water management strategies can we employ until the water system is expanded?
How large is our water system?

East - West: 27 miles
North - South: 13.5 miles

1 in = 10,000 ft
HOW LARGE IS OUR WATER SYSTEM?

Total Miles Water Pipe: 863
Total Mi. Pipe Inside City: 359
Total Mi. Pipe Outside City: 504

1 in = 10,000 ft
 HOW LARGE IS OUR WATER SYSTEM?

Total Sq. Mi. Served: 145

Sq. Mi. Served Inside City: 35
Sq. Mi. Served Outside City: 110

1 in = 10,000 ft
HOW LARGE IS OUR WATER SYSTEM?

Water Meter Locations

# Meters Inside City: 17,945
# Meters Outside City: 18,180

1 in = 10,000 ft
HOW LARGE IS OUR WATER SYSTEM?

% Water Billed Inside City: 62%
% Water Billed Outside City: 38%

1 in = 10,000 ft

Water Meter Billing
NEIGHBORING WATER PROVIDERS
Summer sprinklers utilized 27% of the total city water use, or 3.5 MGD, in Summer 2012.

This amount is even higher when taking county sprinkler usage into account (in homes without public wastewater, sprinkler usage is not separately metered).

Sprinkler use primarily occurs June – Sept.
Maximum Production Capacity: 25 MGD
- City produced 23 MGD in 2012
- City has 2 MGD of available capacity above the 2012 maximum

Max Day Demand for a new residential home is 450 GPD
- 1M gallons of capacity could serve 2200 new meters
- City set an average of 268 new connections per year in 2011 and 2012
Arkansas Department of Health recommends 80% of the 25 MGD maximum production, or 20 MGD, as a valid planning point for more water.
WATER CAPACITY
EXPANSION TIMELINE

Planning
1 YEAR

Permits & Funding
1 YEAR

Design
1 YEAR

Construction
2 YEARS
WATER SOURCE OPTIONS

1. Upper Lake Hamilton
2. Lake Ouachita, Above Dam
3. Lake DeGray

4. Lake Ouachita, Below Dam
5. Lake Catherine
6. Ouachita River, Below Remmel Dam
<table>
<thead>
<tr>
<th></th>
<th>Allocation (MGD)</th>
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<tbody>
<tr>
<td>City of Hot Springs</td>
<td>8.75</td>
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<tr>
<td>Southern Working Group</td>
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<tr>
<td>Central Arkansas Water</td>
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<tr>
<td>Hot Springs Village</td>
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<tr>
<td>Other</td>
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<tr>
<td><strong>Total MAWA Allocation</strong></td>
<td><strong>20</strong></td>
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**ADDITIONAL CITY REQUEST** 7.0 MGD
### WATER MANAGEMENT STRATEGY
**PROPOSED 5-YEAR PLAN, 2012-2017**

<table>
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<th>Enhanced Smart Meters</th>
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<td>Water Main Replacement and Leak Repairs</td>
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<td>Water Conservation and Irrigation Management</td>
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<td>Plan for New Capacity – Crist Engineers</td>
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<td>Monitor New Connections and Capacity</td>
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<td>Funding for New Capacity</td>
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<td>Maximize Existing Plant Operation</td>
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<td>Expand Public Information</td>
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