



Water Conservation Plan Waldorf System

Presenters

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Need for Water Conservation Plan

County Requested an Increase in Magothy Aquifer Withdrawals

- Permit Application No. CH2020G003/01 submitted in early 2020
- Increase withdrawal by 1.28 MGD to support projected demand growth
 - All additional supply from Well 16r
- MDE requires a Water Conservation Plan for the Waldorf System

Water Conservation Plan

What is a Water Conservation Plan?

- Tool developed by EPA to help water systems maximize use of existing supply
 - MDE defers to EPA's requirements
- Helps analyze supply and demand forecasts
- Different requirements for water systems of different sizes

Water Conservation Plan

Process for Developing a Water Conservation Plan

- **Specify Conservation Planning Goals**
- **Develop a Water System Profile**
- **Prepare a Demand Forecast**
- **Describe Planned Facilities**
- **Identify Conservation Measures**

Water Conservation Plan

Process for Developing a Water Conservation Plan – Cont.

- **Analyze Benefits and Costs**
- **Select Conservation Measures**
- **Integrate Resources and Modify Forecasts**
- **Present Implementation and Evaluation Strategy**

Water Conservation Plan

Conservation Measures Analyzed

- Reducing leaks is often the best way to conserve water
- Water utilities typically lose 20-30% of supply through leaks
- As of 2019, the Waldorf System only loses 4.75% of water to leaks

Water Conservation Plan

Conservation Measures Analyzed

- Audits of Large Volume Users
- Landscape Efficiency
- Updates to Water Bills
- Distributing Retrofit Kits

Water Conservation Plan

Results of Analysis

- **Audits of Large Volume Users**
 - Estimated Volume of Water Saved: **7.1 million gallons over 20 years**
 - Net cost to the County
 - Measure was **not selected** for implementation
- **Landscape Efficiency**
 - Estimated Volume of Water Saved: **None**
 - Net cost to the County
 - Measure was **not selected** for implementation

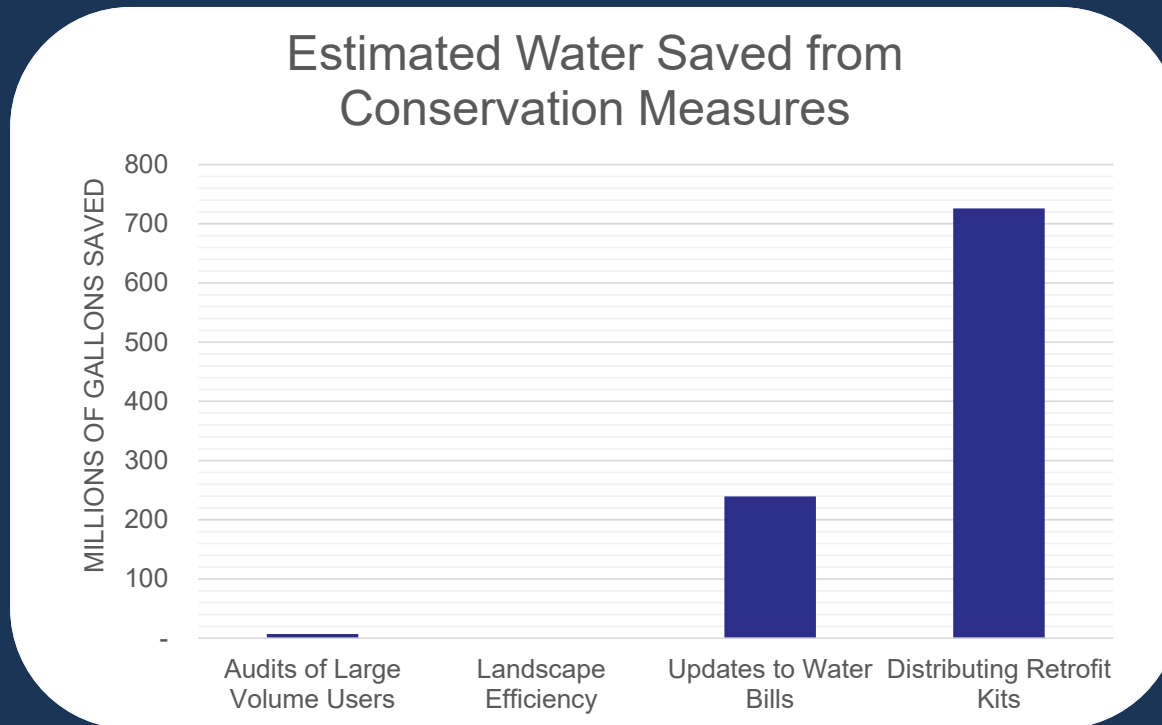
Water Conservation Plan

Results of Analysis Cont.

- **Updates to Water Bills**
 - Estimated Volume of Water Saved: **239 million gallons over 15 years**
 - Net benefit to the County
 - Measure was **selected** for implementation
- **Distribute Retrofit Kits**
 - Estimated Volume of Water Saved: **726 million gallons over 17 years**
 - Net benefit to the County
 - Measure was **selected** for implementation

Water Conservation Plan

Results of Analysis Cont.



Water Conservation Plan

Implementation of Water Bill Updates

- **Explore Updates Water/Sewer Billing Software (2023)**
 - Future items are dependent on procuring this software – the County is currently updating the Financial system (less Taxes and Water/Sewer)
- **Develop Updated Bill (2024)**
- **Send New Bills to Customers (2025)**
- **Survey Efficacy of Bills (Ongoing)**

Water Conservation Plan

Implementation of Retrofit Kit Distribution

- Identify Vendors for Kits and Distribution (2023)
- Develop Distribution List (2023)
- Distribute Kits (2023-Ongoing)
- Customer Feedback (2023-Ongoing)
- Evaluate Reduction in Demand (2024-Ongoing)

Water Conservation Plan

Future of Water Conservation Plan

- **Draft Plan has been reviewed by MDE**
- **Ongoing Analysis of Selected Measures**
- **Living Document –Review and Update Plan every 3 Years**

Questions?



Presented By:

**Charles County Government and JMT
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