City of Ann Arbor, Michigan
FY2008-2013 Capital Improvements Plan

Utilities – Water System
Water System

Improvement of water service and increased reliability

CAPITAL PROGRAM SUMMARY

The City is responsible for delivering treated water originating from the Huron River and well fields to the Ann Arbor consumer, as well as adjacent townships on a contractual basis. The water system capital improvements program is designed to provide a reliable supply of the highest quality water consistent with customer values, cost effectiveness and environmental protection.

The Ann Arbor water system is comprised of one treatment plant, four pumping stations, approximately 480 miles of water mains, approximately 3500 fire hydrants, 7000 valves, two elevated storage tanks, one on-ground storage tank, and three belowground storage tanks. Specific activities in the program include increasing available water supply by installing new and replacing old water mains and continuing water treatment plant improvements.

In addition to specific projects contained in this plan, on-going general water main construction projects fulfill the water requirements of township annexations and general growth, as part of the City Master Plan.

NEEDS ASSESSMENT AND EVALUATION

In 2005 and 2006, Ann Arbor Water Treatment Facilities and Water Resources Master Plan was completed. This plan included an assessment of the existing Water Treatment Plant facilities condition, renewal and replacement needs, and the best alternative for the future development of the plant facility and treatment processes, as well as a capital improvement program for these facilities.

In addition, the City identifies facilities in need of improvements through surveys and continuous testing of the distribution network. A model of the water system allows evaluation of the system’s ability to meet customer usage demands and fire flows.

PROJECT SELECTION CRITERIA

- Water Master Plan (2000)
- History of broken mains
- Customer complaints
- Review of maintenance records
- Coordination with other improvements (street reconstruction)
- Operational efficiency
- Contractual or government mandated obligations
# TABLE OF CONTENTS

## FOR

## PROJECT SHEETS

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project ID</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Arbor Railroad Water Main Bore</td>
<td>UT-WS-03-01</td>
<td>472</td>
</tr>
<tr>
<td>Arbor Oaks Subdivision Water Mains Replacement</td>
<td>UT-WS-08-37</td>
<td>473</td>
</tr>
<tr>
<td>Argo Dam - Coating Structural Steel</td>
<td>UT-WS-10-02</td>
<td>474</td>
</tr>
<tr>
<td>Argo Dam Toe Drain Repair</td>
<td>UT-WS-08-40</td>
<td>475</td>
</tr>
<tr>
<td>Barton Dam - Coating Structural Steel</td>
<td>UT-WS-10-01</td>
<td>476</td>
</tr>
<tr>
<td>Barton Dam Concrete Repairs</td>
<td>UT-WS-10-09</td>
<td>477</td>
</tr>
<tr>
<td>Barton Electrical Upgrades</td>
<td>UT-WS-08-10</td>
<td>478</td>
</tr>
<tr>
<td>Barton Pond Early Warning System</td>
<td>UT-WS-08-07</td>
<td>479</td>
</tr>
<tr>
<td>Calvin Street Water Extension</td>
<td>UT-WS-01-06</td>
<td>480</td>
</tr>
<tr>
<td>Catherine Street 16” Water Main</td>
<td>UT-WS-08-39</td>
<td>481</td>
</tr>
<tr>
<td>Claire Circle Water Main Replacement</td>
<td>UT-WS-08-18</td>
<td>482</td>
</tr>
<tr>
<td>Clark Road Water Main Extension</td>
<td>UT-WS-06-13</td>
<td>483</td>
</tr>
<tr>
<td>Collingwood Water Quality Improvements</td>
<td>UT-WS-08-22</td>
<td>484</td>
</tr>
<tr>
<td>Detroit Street Water Main Replacement</td>
<td>UT-WS-08-34</td>
<td>485</td>
</tr>
<tr>
<td>Devonshire/Belmont/Londonderry Water Quality Improvements</td>
<td>UT-WS-08-20</td>
<td>486</td>
</tr>
<tr>
<td>Dexter Avenue Water Main Replacement</td>
<td>UT-WS-10-10</td>
<td>487</td>
</tr>
<tr>
<td>Distribution System Monitoring and Security</td>
<td>UT-WS-92-27</td>
<td>488</td>
</tr>
<tr>
<td>Dover Court Water Main Replacement</td>
<td>UT-WS-10-11</td>
<td>489</td>
</tr>
<tr>
<td>Downtown Valve Insertion/Replacement</td>
<td>UT-WS-08-30</td>
<td>490</td>
</tr>
<tr>
<td>Eisenhower Parkway Water Main</td>
<td>UT-WS-01-08</td>
<td>491</td>
</tr>
<tr>
<td>Elevated Storage Tank (West High Service District)</td>
<td>UT-WS-01-10</td>
<td>492</td>
</tr>
<tr>
<td>Elmcrest Drive Water Main</td>
<td>UT-WS-08-29</td>
<td>493</td>
</tr>
<tr>
<td>Exmoor Looping Water Main &amp; Londonderry Water Main</td>
<td>UT-WS-08-26</td>
<td>494</td>
</tr>
<tr>
<td>Geddes and South East District Control Valve</td>
<td>UT-WS-06-07</td>
<td>495</td>
</tr>
<tr>
<td>Geddes Dam - Coating Structural Steel</td>
<td>UT-WS-10-03</td>
<td>496</td>
</tr>
<tr>
<td>Gravity and West High Boundary Valve Replacement</td>
<td>UT-WS-06-08</td>
<td>497</td>
</tr>
<tr>
<td>Harbal/Laird Water Main</td>
<td>UT-WS-10-05</td>
<td>498</td>
</tr>
<tr>
<td>Hiawatha and Loyola Water Main Replacement</td>
<td>UT-WS-06-11</td>
<td>499</td>
</tr>
<tr>
<td>Leak Detection Survey</td>
<td>UT-WS-06-17</td>
<td>500</td>
</tr>
<tr>
<td>Manchester Elevated Water Tank Paint Project</td>
<td>UT-WS-02-19</td>
<td>501</td>
</tr>
<tr>
<td>Miller Avenue Water Main Replacement</td>
<td>UT-WS-10-16</td>
<td>502</td>
</tr>
<tr>
<td>New Well at Steere Farm</td>
<td>UT-WS-08-12</td>
<td>503</td>
</tr>
<tr>
<td>Nob Hill Water Main Replacements</td>
<td>UT-WS-08-31</td>
<td>504</td>
</tr>
<tr>
<td>North State Street Water Main Replacement</td>
<td>UT-WS-08-35</td>
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<td>North University Court Water Main</td>
<td>UT-WS-10-17</td>
<td>506</td>
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</tr>
<tr>
<td>------------------------------------------------------------------</td>
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<tr>
<td>Ozone Residual Monitor Replacement</td>
<td>UT-WS-08-08</td>
<td>507</td>
</tr>
<tr>
<td>Packard Water Main Bore</td>
<td>UT-WS-01-25</td>
<td>508</td>
</tr>
<tr>
<td>Pauline/WHS Return Loop Water Main</td>
<td>UT-WS-01-26</td>
<td>509</td>
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<tr>
<td>Plant #2 Hydraulic Corrections</td>
<td>UT-WS-92-28</td>
<td>510</td>
</tr>
<tr>
<td>Raw Water Main (30”) Upgrade (Seventh Easterly)</td>
<td>UT-WS-09-03</td>
<td>511</td>
</tr>
<tr>
<td>Repair Roof of South Industrial Tank</td>
<td>UT-WS-08-14</td>
<td>512</td>
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<tr>
<td>Repair Valves Behind Ozone Building</td>
<td>UT-WS-08-15</td>
<td>513</td>
</tr>
<tr>
<td>Replace Filter Effluent Turbidimeters</td>
<td>UT-WS-08-11</td>
<td>514</td>
</tr>
<tr>
<td>Replace Filter Press Plates</td>
<td>UT-WS-08-05</td>
<td>515</td>
</tr>
<tr>
<td>Replace Limeslakers at Water Treatment Plant</td>
<td>UT-WS-06-05</td>
<td>516</td>
</tr>
<tr>
<td>Replace Section of Well Transmission Pipe From Steere Farm</td>
<td>UT-WS-08-13</td>
<td>517</td>
</tr>
<tr>
<td>Replace Steere Farm Well Pump Engines</td>
<td>UT-WS-08-06</td>
<td>518</td>
</tr>
<tr>
<td>Russet, Russell &amp; Redeemer Water Main Replacement</td>
<td>UT-WS-10-15</td>
<td>519</td>
</tr>
<tr>
<td>Sludge Storage Repairs</td>
<td>UT-WS-08-16</td>
<td>520</td>
</tr>
<tr>
<td>Sodium Hydroxide Feed System Expansion</td>
<td>UT-WS-10-04</td>
<td>521</td>
</tr>
<tr>
<td>South Boulevard Water Main</td>
<td>UT-WS-01-30</td>
<td>522</td>
</tr>
<tr>
<td>South Fifth Avenue Water Main</td>
<td>UT-WS-08-25</td>
<td>523</td>
</tr>
<tr>
<td>Stadium Boulevard Water Main Replacement (Hutchins to Kipke)</td>
<td>UT-WS-10-12</td>
<td>524</td>
</tr>
<tr>
<td>State Street Raw Water - Reconstruct Interconnection</td>
<td>UT-WS-01-31</td>
<td>525</td>
</tr>
<tr>
<td>Structural Repair and Painting Basins #4 and #5 at Water Treatment Plant</td>
<td>UT-WS-06-04</td>
<td>526</td>
</tr>
<tr>
<td>Structural Repairs Project - Phase 2</td>
<td>UT-WS-08-04</td>
<td>527</td>
</tr>
<tr>
<td>Taylor Street Water Main</td>
<td>UT-WS-10-13</td>
<td>528</td>
</tr>
<tr>
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<td>UT-WS-08-27</td>
<td>529</td>
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<tr>
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<td>531</td>
</tr>
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<td>Washtenaw Water Main Replacement</td>
<td>UT-WS-06-14</td>
<td>532</td>
</tr>
<tr>
<td>Washtenaw Water Main Upgrade (South University to Hill Street)</td>
<td>UT-WS-10-06</td>
<td>533</td>
</tr>
<tr>
<td>Water Distribution System Evaluation - Master Plan Update</td>
<td>UT-WS-08-24</td>
<td>534</td>
</tr>
<tr>
<td>Water Distribution System Master Plan - Asset Management</td>
<td>UT-WS-09-05</td>
<td>535</td>
</tr>
<tr>
<td>Water Laboratory Information Management System</td>
<td>UT-WS-10-07</td>
<td>536</td>
</tr>
<tr>
<td>Water Treatment Plant Residuals Disposal Study</td>
<td>UT-WS-08-02</td>
<td>537</td>
</tr>
<tr>
<td>Well Booster Station</td>
<td>UT-WS-92-35</td>
<td>538</td>
</tr>
<tr>
<td>West High Service Pump and Electrical Upgrade</td>
<td>UT-WS-92-37</td>
<td>539</td>
</tr>
<tr>
<td>West Stadium Water Main Replacement (Pauline Intersection)</td>
<td>UT-WS-09-01</td>
<td>540</td>
</tr>
<tr>
<td>West Stadium Water Main Replacement (Pauline to Hutchins)</td>
<td>UT-WS-09-02</td>
<td>541</td>
</tr>
</tbody>
</table>
PROJECT NAME: Ann Arbor Railroad Water Main Bore

PROJECT ID: UT-WS-03-01

PROJECT TYPE: New Construction

SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: South

PRIORITY: Desirable

TOTAL COST: $225,000

YEARS IN CIP: 5

IDENTIFIED NEED:
Extend water main under RR for redundancy and reliability

SCOPE ITEMS:
Will need AARR permit; stubs on each side of RR exist, e’ly on dead-end stub;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

| Protects health, safety, lives of citizens | 3 |
| Meets new, or maintains existing, regulatory compliance | 0 |
| Provides a net savings in operations and/or maintenance costs | 1 |
| Enhances social, cultural, recreational or aesthetic opportunities | 0 |
| Improves customer service, convenience for citizens | 2 |
| Maintains or improves existing infrastructure, facilities [Expansion = (-1)] | 2 |
| Reduces energy consumption, impacts on the environment | 0 |

TOTAL SCORE
8

BENEFICIAL IMPACTS:
Will strengthen fire protection for Eisenhower Corporate Park and general water system grid will be strengthened.

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

<table>
<thead>
<tr>
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<tbody>
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<td>To provide a second source (link) to back-up the primary water supply piping that has been lacking for 10 years.</td>
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**PROJECT NAME:** Arbor Oaks Subdivision Water Mains Replacement  
**PROJECT ID:** UT-WS-08-37  
**PROJECT TYPE:** Replacement  
**SUBMITTED BY:** PUBLIC SERVICES SYSTEM PLANNING  
**PLANNING AREA:** South  
**PRIORITY:** Urgent  
**TOTAL COST:** $1,500,000  
**YEARS IN CIP:** 0

**IDENTIFIED NEED:**  
Water main is reaching the end of its useful life

**SCOPE ITEMS:**  
High rate of main breaks; coordinate with resurfacing?

**PROJECT JUSTIFICATION:**  
Value indicates the degree to which the project will impact the below items:  
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;  
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact  

- Protects health, safety, lives of citizens: 2  
- Meets new, or maintains existing, regulatory compliance: 1  
- Provides a net savings in operations and/or maintenance costs: 4  
- Enhances social, cultural, recreational or aesthetic opportunities: 1  
- Improves customer service, convenience for citizens: 4  
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]: 4  
- Reduces energy consumption, impacts on the environment: 2

**TOTAL SCORE:** 18

**BENEFICIAL IMPACTS:**  
Due to increasing frequency and number of water main breaks, customers are suffering service interruptions and maintenance costs are increasing. This project will reduce or eliminate this.

**MASTER PLAN REFERENCE:**

**STUDY PLAN REFERENCE:**  
**POLICY/OTHER REFERENCE:** Staff Initiated

**SCHEDULE:**

<table>
<thead>
<tr>
<th>Study</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**SCHEDULE JUSTIFICATION:**  
The main can still be maintained for a few years, so the start can be delayed. And with over 9000 feet of main to replace, this will need to be phased over multiple years (currently shown as 2-year phasing).

**Funding (in thousands) ***

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
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*REV*
PROJECT NAME: Argo Dam - Coating Structural Steel

PROJECT ID: UT-WS-10-02
PROJECT TYPE: Capital Maintenance
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: central, Northeast
PRIORITY: Important
TOTAL COST: $250,000
YEARS IN CIP: 

IDENTIFIED NEED:
Re-coat structural steel to extend life of asset.

SCOPE ITEMS:
Blast and remove existing coating system, and re-coat all structural steel.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

| Protects health, safety, lives of citizens | -2 |
| Meets new, or maintains existing, regulatory compliance | 0 |
| Provides a net savings in operations and/or maintenance costs | 3 |
| Enhances social, cultural, recreational or aesthetic opportunities | 0 |
| Improves customer service, convenience for citizens | 0 |
| Maintains or improves existing infrastructure, facilities [Expanson = (-1)] | 0 |
| Reduces energy consumption, impacts on the environment | 0 |

TOTAL SCORE: 0

BENEFICIAL IMPACTS:
Extend life of the asset.

MASTER PLAN REFERENCE: 

STUDY REFERENCE:
POLICY/OTHER REFERENCE: Staff Initiated

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<tr>
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<th>Start</th>
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SCHEDULE JUSTIFICATION:
Based on expected life of coating system.

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474
PROJECT NAME: Argo Dam Toe Drain Repair

PROJECT ID: UT-WS-08-40
PROJECT TYPE: Capital Maintenance
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: Central, Northeast
PRIORITY: Urgent
TOTAL COST: $300,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Repair toe drains at Argo Dam to comply with MDEQ dam safety requirements.

SCOPE ITEMS:
Locate toe drains. Repair/extend/daylight toe drains so they can be monitored and are functional. Toe drains serve to control the hydrostatic pressure within the dam embankment.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

4 Protects health, safety, lives of citizens
4 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
2 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
4 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
-1 Reduces energy consumption, impacts on the environment

TOTAL SCORE
13

BENEFICIAL IMPACTS:
Project is required by the State agency that regulates Dam Safety, Michigan Department of Environmental Quality - Dam Safety Division.

MASTER PLAN REFERENCE:

STUDY REFERENCE: Staff Initiated
POLICY/OTHER REFERENCE: Staff Initiated

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SCHEDULE JUSTIFICATION:
Repairs required by Michigan Department of Environmental Quality - Dam Safety.

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YR 475
PROJECT NAME: Barton Dam - Coating Structural Steel

PROJECT ID: UT-WS-10-01
PROJECT TYPE: Capital Maintenance
SUBMITTED BY: PUBLIC SERVICES
WATER TREATMENT

IDENTIFIED NEED:
Re-coat structural steel to extend life of asset.

SCOPE ITEMS:
Blast and remove existing coating system, and re-coat all structural steel.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

2 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
3 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE
0

BENEFICIAL IMPACTS:
Extend life of the asset.

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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<th>SCHEDULE JUSTIFICATION:</th>
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SCHEDULE JUSTIFICATION:
Based on expected life of coating system.

Funding (in thousands) *

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
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<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>Beyond FY15</th>
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476
PROJECT NAME: Barton Dam Concrete Repairs

PROJECT ID: UT-WS-10-09

PROJECT TYPE: Capital Maintenance

SUBMITTED BY: PUBLIC SERVICES

WATER TREATMENT

PLANNING AREA: West

PRIORITY: Urgent

TOTAL COST: $400,000

YEARS IN CIP:

IDENTIFIED NEED:

SCOPE ITEMS:
FERC coordination and approval; General fund financing availability?; May need to lower pond - include Molly for coordination of vegetation management efforts; coordinate w/ MDNR fisheries; Coordinate with Barton Pond users (boat club, parks, etc) and WTP

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- Protects health, safety, lives of citizens
- Meets new, or maintains existing, regulatory compliance
- Provides a net savings in operations and/or maintenance costs
- Enhances social, cultural, recreational or aesthetic opportunities
- Improves customer service, convenience for citizens
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- Reduces energy consumption, impacts on the environment

TOTAL SCORE: 0

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:

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<tr>
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<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
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<td>Beyond FY15</td>
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<td>$0</td>
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Total: $400

REV | Revenue Source Name | Prior Years | Funding (in thousands) * |
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</tr>
<tr>
<td>$0</td>
<td>$400</td>
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REV 477
PROJECT NAME: Barton Electrical Upgrades
PROJECT ID: UT-WS-08-10
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT
PLANNING AREA: West
PRIORITY: Urgent
TOTAL COST: $600,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Replace aging/outdated electrical equipment at Barton Pump Station

SCOPE ITEMS:
Replace switchgear and transformers at Barton Pump Station.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact
0 Protects health, safety, lives of citizens
3 Meets new, or maintains existing, regulatory compliance
1 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
4 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
2 Reduces energy consumption, impacts on the environment

TOTAL SCORE
10

BENEFICIAL IMPACTS:
Barton pump station is a critical piece of infrastructure for the water system. Reliable electrical equipment is necessary to ensure reliability of the City's drinking water.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:
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<tr>
<td>Design/Acquisition</td>
<td>7/1/2009</td>
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</tr>
<tr>
<td>Construction</td>
<td>7/1/2010</td>
<td>7/1/2011</td>
</tr>
</tbody>
</table>

SCHEDULE JUSTIFICATION:
Replace equipment before failure. Portions of the electrical equipment are not compliant with current NEC and represent safety hazards for City Staff.

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
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<th>FY14</th>
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<td>6907</td>
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<td>$0</td>
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Beyond FY15 Total: $600

TOTAL: $600

478
PROJECT NAME: Barton Pond Early Warning System

PROJECT ID: UT-WS-08-07
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $300,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Provide water quality monitoring in Huron River to provide early warning in the event of a river contamination event.

SCOPE ITEMS:
Determine location and type of monitors to install. Design and construct recommended improvements. Coordinate with automated water quality monitoring system (stormwater project).

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
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<tbody>
<tr>
<td>Protects health, safety, lives of citizens</td>
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<tr>
<td>Meets new, or maintains existing, regulatory compliance</td>
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<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
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<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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</tr>
<tr>
<td>Improves customer service, convenience for citizens</td>
<td>0</td>
</tr>
<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
<td>0</td>
</tr>
<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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</tr>
</tbody>
</table>

TOTAL SCORE: 2

BENEFICIAL IMPACTS:
Protects drinking water supply for the City. Portion of project will be coordinated with water quality monitoring project (stormwater).

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

<table>
<thead>
<tr>
<th>Schedule</th>
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<tr>
<td>Construction</td>
<td>7/1/2011</td>
<td>7/1/2012</td>
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SCHEDULE JUSTIFICATION:
Per recommendations of Master Plan - 2006.

<table>
<thead>
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<th>FY11</th>
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Beyond FY15: $0, Total: $300
PROJECT NAME: Calvin Street Water Extension

PROJECT ID: UT-WS-01-06
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING
PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $450,000
YEARS IN CIP: 7

IDENTIFIED NEED:
Water service is not yet installed property owners on wells

SCOPE ITEMS:
No right-of-way, private street. Public easement will need to be granted, special assessment, fixed charge. Coordinate with sanitary extension

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- Protects health, safety, lives of citizens: 3
- Meets new, or maintains existing, regulatory compliance: 0
- Provides a net savings in operations and/or maintenance costs: -1
- Enhances social, cultural, recreational or aesthetic opportunities: 0
- Improves customer service, convenience for citizens: 3
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]: 0
- Reduces energy consumption, impacts on the environment: 0

TOTAL SCORE: 4

BENEFICIAL IMPACTS:
Water service will not be available for new development or if existing wells fail.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Resident Initiated

SCHEDULE:

<table>
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Funding (in thousands) *

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* Beyond FY15: $0, Total: $450
PROJECT NAME: Catherine Street 16" Water Main

PROJECT ID: UT-WS-08-39
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Central
PRIORITY: Important
TOTAL COST: $500,000
YEARS IN CIP: 0

IDENTIFIED NEED:

SCOPE ITEMS:

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

4 Protects health, safety, lives of citizens
2 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
4 Improves customer service, convenience for citizens
4 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
This will provide redundancy in the transmission of water to the Geddes-Hill Pressure District near the U-M Medical Campus, dorm area and power plant.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:
PRIORITY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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<td>6/30/2008</td>
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SCHEDULE JUSTIFICATION:
The Zina Pitcher 16" main is currently connected to an undersized 6" main on Catherine. In addition, this section of Catherine is in need to resurfacing.

<table>
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<tr>
<th>Rev</th>
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<th>FY10</th>
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Rev 481
PROJECT NAME: Claire Circle Water Main Replacement

PROJECT ID: UT-WS-08-18
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $200,000
YEARS IN CIP: 0

IDENTIFIED NEED: 

SCOPE ITEMS:

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

2 Protects health, safety, lives of citizens
3 Meets new, or maintains existing, regulatory compliance
3 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
The existing main is experiencing many main breaks and the upsized main will provide improved water quality and fire coverage

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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<th>Start</th>
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</table>
Study  | 9/1/2008 | 2/1/2009 |
Construction: | |

SCHEDULE JUSTIFICATION:
Main break frequency increasing

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482
PROJECT NAME: Clark Road Water Main Extension

PROJECT ID: UT-WS-06-13
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

IDENTIFIED NEED:
Need to replace feed under US-23 at Washtenaw and along Hogback (end of useful life)

SCOPE ITEMS:
Funded by WCC; 2009 Construction; New feedpoint to AA Twp.;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

3 Protects health, safety, lives of citizens
1 Meets new, or maintains existing, regulatory compliance
4 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
4 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE
16

BENEFICIAL IMPACTS:
Provide second water source to improve reliability of service.

MASTER PLAN REFERENCE:

STUDY REFERENCE:
POLICY/OTHER REFERENCE: Resident Initiated

SCHEDULE:

<table>
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<tr>
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<tbody>
<tr>
<td>Study:</td>
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SCHEDULE JUSTIFICATION:
To be fully funded by WCC.

<table>
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<tr>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
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* Funding (in thousands)
PROJECT NAME: Collingwood Water Quality Improvements

PROJECT ID: UT-WS-08-22
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $100,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Address water quality complaints/issues

SCOPE ITEMS:
Have had auto-flush device for last 3 years; Red water complaints; Look at possibly looping Shelby and Fair Street; Review hydrant coverage; Examine sizing for main(s);

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

1 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE:
9

BENEFICIAL IMPACTS:
Improved water quality for customers

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

<table>
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<tr>
<th>Study</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Acquisition</td>
<td>9/1/2010</td>
<td>3/1/2011</td>
</tr>
</tbody>
</table>

SCHEDULE JUSTIFICATION:
Auto-flush device has been installed, so will allow time to evaluate its effectiveness

<table>
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<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
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<th>FY15</th>
<th>Beyond FY15</th>
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<tr>
<td>6907</td>
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<td>$100</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
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<td>$100</td>
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</tbody>
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Funding (in thousands) *
PROJECT NAME: Detroit Street Water Main Replacement

PROJECT ID: UT-WS-08-34

PROJECT TYPE: Replacement

SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Central

PRIORITY: Desirable

TOTAL COST: $250,000

YEARS IN CIP: 0

IDENTIFIED NEED:
Replace main in coordination with brick pavement replacement

SCOPE ITEMS:
Road work (brick pavement replacement) is driver; Look at sizing; Review hydrant coverage;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

3 Protects health, safety, lives of citizens
1 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
1 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
4 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE
14

BENEFICIAL IMPACTS:
Eliminate water quality issues and prevent costly main break repairs.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

<table>
<thead>
<tr>
<th>Start</th>
<th>End</th>
<th>SCHEDULE JUSTIFICATION:</th>
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<tbody>
<tr>
<td>Study:</td>
<td>7/1/2008</td>
<td>Perform with brick replacement project.</td>
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<tr>
<td>Design/Acquisition:</td>
<td>4/1/2010</td>
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<td>Construction:</td>
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Funding (in thousands) *

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<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
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485
PROJECT NAME: Devonshire/Belmont/Londonderry Water Quality Improvements

PROJECT ID: UT-WS-08-20

PROJECT TYPE: Replacement

SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Northeast

PRIORITY: Important

TOTAL COST: $550,000

YEARS IN CIP: 0

IDENTIFIED NEED:
Address water quality complaints

SCOPE ITEMS:
no water quality complaints in past 3 or 4 years; Discolored water when hydrants flushed during flow testing; Fire flow concerns during flow testing; Entire neighborhood is of same vintage and may need to be programmed for replacement;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:

-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

3 Protects health, safety, lives of citizens
3 Meets new, or maintains existing, regulatory compliance
3 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
4 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
1 Reduces energy consumption, impacts on the environment

TOTAL SCORE

17

BENEFICIAL IMPACTS:
Improved water quality for customers

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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<tr>
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<th>Start</th>
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<td>Construction</td>
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SCHEDULE JUSTIFICATION:
Need to see if the Exmoor Looping Water Main and Londonderry Water Main Replacement project (UT-WS-08-26) corrects the situation, and if not then investigate options.

<table>
<thead>
<tr>
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<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
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486
PROJECT NAME: Dexter Avenue Water Main Replacement

PROJECT ID: UT-WS-10-10

PROJECT TYPE: Replacement

SUBMITTED BY: PUBLIC SERVICES

PROJECT MANAGEMENT

PLANNING AREA: West

PRIORITY: Important

TOTAL COST: $600,000

YEARS IN CIP:

IDENTIFIED NEED:

SCOPE ITEMS:
Being driven by road project; Some break history on west end near Maple;
Contamination on Maple Shoppes site - approved Brownfield site, and found under
N. Maple Rd; May need to stub out under Maple during resurfacing; stubs for
Maple Shoppes;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact
0 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment
0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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PROJECT NAME: Distribution System Monitoring and Security

PROJECT ID: UT-WS-92-27
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

IDENTIFIED NEED:
Security improvements at the Water Treatment Plant.

SCOPE ITEMS:
Add security improvements at the Water Treatment Plant to safeguard the City's drinking water.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
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<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
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<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
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<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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TOTAL SCORE 2

BENEFICIAL IMPACTS:
Improves security of the water system through monitoring of finished water in the distribution system and security upgrades at water system facilities. Improves quality of water delivered to customers by providing real-time water quality information.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006


POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:
Water distribution system and Water Treatment Plant security concerns have increased need for this type of instrumentation and security improvements.

<table>
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Funding (in thousands) *
PROJECT NAME: Dover Court Water Main Replacement

PROJECT ID: UT-WS-10-11

PROJECT TYPE: Replacement

SUBMITTED BY: PUBLIC SERVICES FIELD OPERATIONS

PLANNING AREA: West

PRIORITY: Important

TOTAL COST: $97,000

YEARS IN CIP:

IDENTIFIED NEED:
Increasing break rate

SCOPE ITEMS:
Exterior corrosion; Check soil aggressiveness; No other break history is sub, but expected life should be reviewed; Clean up service connection arrangements; Review other records for streets and utilities - conditions & expected remaining life;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:

-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

Protects health, safety, lives of citizens: 0
Meets new, or maintains existing, regulatory compliance: 0
Provides a net savings in operations and/or maintenance costs: 0
Enhances social, cultural, recreational or aesthetic opportunities: 0
Improves customer service, convenience for citizens: 0
Maintains or improves existing infrastructure, facilities [Expansion = (-1)]: 0
Reduces energy consumption, impacts on the environment: 0

TOTAL SCORE: 0

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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Revenue Source Name: BOND/NOTE PROCEEDS

Total Funding: $97,000
IDENTIFIED NEED:
Operable valves needed to isolation water main in downtown area in the event of maintenance or a water main break.

SCOPE ITEMS:
Add isolation valves in strategic locations in downtown; Night-time work likely req'd; Possible use of new resilient wedge insertion valve; Coordinate/engage downtown merchants and DDA; Many mains old, sand cast; Number of operating valves limited;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
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1 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
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3 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

6 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE: Staff Initiated

POLICY/OTHER REFERENCE:

SCHEDULE:

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</table>
PROJECT NAME: Eisenhower Parkway Water Main

PROJECT ID: UT-WS-01-08

PROJECT TYPE: New Construction

SUBMITTED BY: PUBLIC SERVICES

SYSTEM PLANNING

PLANNING AREA: South

PRIORITY: Desirable

TOTAL COST: $275,000

YEARS IN CIP: 7

IDENTIFIED NEED:
Gap in transmission system

SCOPE ITEMS:
Complete loop between AADL Mallets Creek Branch and the 16" main at west side of Buhr Park

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
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2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

1 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
1 Provides a net savings in operations and/or maintenance costs
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3 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE: 8

BENEFICIAL IMPACTS:
Will improve the water transmission system in the Southeast Pressure district

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE: POLICY/OTHER REFERENCE:

SCHEDULE:

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<tr>
<td>Construction</td>
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SCHEDULE JUSTIFICATION:
Needs to be completed to provide service and to strengthen water system grid. Some parcels do not have water service available. Project scope reduced because first half (west portion) of the project, approximately 700 feet, completed by a developer.

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
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Funding (in thousands) *

491
PROJECT NAME: Elevated Storage Tank (West High Service District)

PROJECT ID: UT-WS-01-10
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES
WATER TREATMENT

PLANNING AREA: TBD
PRIORITY: Urgent
TOTAL COST: $2,525,000
YEARS IN CIP: 7

IDENTIFIED NEED:
Provide pressure regulation and storage on the West Side of Ann Arbor.

SCOPE ITEMS:
Add elevated storage tank and associated piping on West Side of Ann Arbor.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
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<table>
<thead>
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<tr>
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<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
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<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
<td>1</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
<td>3</td>
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<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
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<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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</table>

TOTAL SCORE: 6

BENEFICIAL IMPACTS:
This project will reduce interruption of service, reduce pressure fluctuations, allow more efficient use of pumps and minimize potential pressure loss in the West High Service District.

MASTER PLAN REFERENCE: Water Master Plan (2000)
Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:
To coordinate with WHS Pump Replacement because they are interrelated.

SCHEDULE:

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<td>6/1/2014</td>
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SCHEDULE JUSTIFICATION:
Project should be coordinated with West High Service Pump replacement project to eliminate the need for redundant modeling efforts.

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<tr>
<th>Funding (in thousands)*</th>
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<tr>
<td>$0</td>
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492
PROJECT NAME: Elmcrest Drive Water Main

PROJECT ID: UT-WS-08-29
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $55,000
YEARS IN CIP: 0

IDENTIFIED NEED:

SCOPE ITEMS:
PVC main rather than creating a loop; upsizing main; Adding hydrant at end in cul-de-sac; Review hydrant coverage in area; Tied to resurfacing;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

3 Protects health, safety, lives of citizens
2 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

13

BENEFICIAL IMPACTS:
Improved water quality and fire coverage

LOCATION MAP:

MASTER PLAN REFERENCE:

STUDY REFERENCE:
POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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493
PROJECT NAME: Exmoor Looping Water Main & Londonderry Water Main Replacement

PROJECT ID: UT-WS-08-26
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Northeast
PRIORITY: Important
TOTAL COST: $200,000
YEARS IN CIP: 0

IDENTIFIED NEED:

SCOPE ITEMS:

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

4 Protects health, safety, lives of citizens
3 Meets new, or maintains existing, regulatory compliance
3 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
4 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
Looping water mains will improve water quality to customers and system redundancy

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

| SCHEDULE JUSTIFICATION: |
| --- | --- |
| Study: | 7/1/2007 | 2/1/2008 |
| Design/Acquisition: | 7/1/2007 | 2/1/2008 |
| Construction: | 5/1/2008 | 7/1/2008 |

<p>| Funding (in thousands) * |
| --- | --- | --- | --- | --- | --- | --- | --- |</p>
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494
PROJECT NAME: Geddes and South East District Control Valve

PROJECT ID: UT-WS-06-07
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Northeast
PRIORITY: Important
TOTAL COST: $200,000
YEARS IN CIP: 2

IDENTIFIED NEED:
Remote control of a boundary valve between Geddes and SE High Service districts.

SCOPE ITEMS:
Add valve, valve pit, and remote control capability for added operation flexibility of water distribution system.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
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<table>
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<td>Improves customer service, convenience for citizens</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
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<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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TOTAL SCORE: 6

BENEFICIAL IMPACTS:
The valve should allow flow in either direction for redundancy of supply to both districts.

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE:
POLICY/OTHER REFERENCE:

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Beyond FY15: $0
Total: $200

495
PROJECT NAME: Geddes Dam - Coating Structural Steel

PROJECT ID: UT-WS-10-03
PROJECT TYPE: Capital Maintenance
SUBMITTED BY: PUBLIC SERVICES
WATER TREATMENT

PLANNING AREA: Ann Arbor Twp
PRIORITIZATION: Desirable
TOTAL COST: $250,000
YEARS IN CIP:

IDENTIFIED NEED:
Re-coat structural steel to extend life of asset.

SCOPE ITEMS:
Blast and remove existing coating system, and re-coat all structural steel.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

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<th>Item</th>
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<tr>
<td>Meets new, or maintains existing, regulatory compliance</td>
<td>0</td>
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<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
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</tr>
<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
<td>0</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
<td>3</td>
</tr>
<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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TOTAL SCORE: 0

BENEFICIAL IMPACTS:
Extend life of the asset.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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Funding (in thousands) *

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Rev  Revenue Source Name  Prior Years  FY10  FY11  FY12  FY13  FY14  FY15  Beyond FY15  Total
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PROJECT NAME: Gravity and West High Boundary Valve Replacement

PROJECT ID: UT-WS-06-08
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: West, Central

TOTAL COST: $400,000
YEARS IN CIP: 2

IDENTIFIED NEED:
Control leaking valves across pressur district boundary.

SCOPE ITEMS:
Remove check valves and replace with isolation valves.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

PROJECT JUSTIFICATION:
-2 Protects health, safety, lives of citizens
-0 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
2 Improves customer service, convenience for citizens
2 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE
8

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

Study: 9/1/2012 7/1/2013

Design/Acquisition: 

Construction: 

SCHEDULE JUSTIFICATION:

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Funding (in thousands) *

Beyond FY15

Total $400
PROJECT NAME: Harbal/Laird Water Main

PROJECT ID: UT-WS-10-05

PROJECT TYPE: Replacement

SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Northeast

PRIORITY: Important

TOTAL COST: $515,000

YEARS IN CIP:

IDENTIFIED NEED:
Loop the existing dead-end water main on Harbal Drive

SCOPE ITEMS:
Review conditions of street & other utilities for remaining life; Examine for possible re-forestation opportunities; Look at design alternatives to loop Harbal & adjust pressure boundary to move Jones Drive loop to Plymouth Rd.; Filters exist on Harbal.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact; 2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- 3 Protects health, safety, lives of citizens
- 0 Meets new, or maintains existing, regulatory compliance
- 3 Provides a net savings in operations and/or maintenance costs
- 0 Enhances social, cultural, recreational or aesthetic opportunities
- 0 Improves customer service, convenience for citizens
- 3 Maintains or improves existing infrastructure, facilities [Expanson = (-1)]
- 0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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PROJECT NAME: Hiawatha and Loyola Water Main Replacement

PROJECT ID: UT-WS-06-11
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES
SYSTEM PLANNING

PLANNING AREA: West, Northeast
PRIORITY: Important
TOTAL COST: $260,000
YEARS IN CIP: 2

IDENTIFIED NEED:

SCOPE ITEMS:

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

| Value | Protects health, safety, lives of citizens | Meets new, or maintains existing, regulatory compliance | Provides a net savings in operations and/or maintenance costs | Enhances social, cultural, recreational or aesthetic opportunities | Improves customer service, convenience for citizens | Maintains or improves existing infrastructure, facilities [Expansion = (-1)] | Reduces energy consumption, impacts on the environment |
|-------|-------------------------------------------|------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------|
| 4     |                                           |                                                      |                                                 |                                                 |                                               |                                                             |
| 4     |                                           |                                                      |                                                 |                                                 |                                               |                                                             |
| 3     |                                           |                                                      |                                                 |                                                 |                                               |                                                             |
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| 4     |                                           |                                                      |                                                 |                                                 |                                               |                                                             |
| 3     |                                           |                                                      |                                                 |                                                 |                                               |                                                             |
| 0     |                                           |                                                      |                                                 |                                                 |                                               |                                                             |

TOTAL SCORE: 18

BENEFICIAL IMPACTS:
Improve water quality and fire coverage for residents.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Resident Initiated

SCHEDULE:

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Funding (in thousands) *

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Beyond FY15 Total: $260

TOTAL: $260

499
PROJECT NAME: Leak Detection Survey

PROJECT ID: UT-WS-06-17
PROJECT TYPE: Study
SUBMITTED BY: PUBLIC SERVICES

PLANNING AREA: City-wide
PRIORITY: Important
TOTAL COST: $350,000
YEARS IN CIP: 2

IDENTIFIED NEED:
Determine location of leaks in water distribution system.

SCOPE ITEMS:
Use leak detection equipment to locate leaks in system.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

1  Protects health, safety, lives of citizens
2  Meets new, or maintains existing, regulatory compliance
4  Provides a net savings in operations and/or maintenance costs
0  Enhances social, cultural, recreational or aesthetic opportunities
1  Improves customer service, convenience for citizens
3  Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0  Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
Will identify areas of the water distribution system in need to replacement to reduce amount of unaccounted for water loss and service disruption.

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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500
**PROJECT NAME:** Manchester Elevated Water Tank Paint Project  
**PROJECT ID:** UT-WS-02-19  
**PROJECT TYPE:** Capital Maintenance  
**SUBMITTED BY:** PUBLIC SERVICES WATER TREATMENT

**PLANNING AREA:** South  
**PRIORITY:** Desirable  
**TOTAL COST:** $700,000  
**YEARS IN CIP:** 6

**IDENTIFIED NEED:**  
Re-coat tank exterior and dry interior to prolong tank life.

**SCOPE ITEMS:**  
Build containment around tank. Blast/remove dry interior and exterior tank coatings. Reccoat with engineered coating system.

**PROJECT JUSTIFICATION:**  
Value indicates the degree to which the project will impact the below items:  
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact; 2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

| Protects health, safety, lives of citizens | 2 |
| Meets new, or maintains existing, regulatory compliance | 2 |
| Provides a net savings in operations and/or maintenance costs | 2 |
| Enhances social, cultural, recreational or aesthetic opportunities | 2 |
| Improves customer service, convenience for citizens | 1 |
| Maintains or improves existing infrastructure, facilities [Expansion = (-1)] | 3 |
| Reduces energy consumption, impacts on the environment | 0 |

**TOTAL SCORE**

**BENEFICIAL IMPACTS:**
Recoating the tank will eliminate potential water quality problems caused by interior corrosion of the tank. Recoating the tank will also extend the life of the tank and minimize the need for future structural repairs.

**MASTER PLAN REFERENCE:** Water Treatment Plant Facilities Master Plan - 2006

**STUDY REFERENCE:**
**POLICY/OTHER REFERENCE:**

**SCHEDULE:**

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**SCHEDULE JUSTIFICATION:**
The existing coating system is beyond its expected life. The project schedule has been delayed to await completion of Water System Master Plan.

**FUNDING (in thousands) ***

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* | $0 | $0 | $0 | $0 | 700 | 0 | 0 | 0 | $0 | 0 | $700 |

501
PROJECT NAME: Miller Avenue Water Main Replacement

PROJECT ID: UT-WS-10-16
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES
PROJECT MANAGEMENT

PLANNING AREA: West
PRIORITY: Desirable
TOTAL COST: $600,000
YEARS IN CIP:

IDENTIFIED NEED:
Replace water main past useful life in coordination with road project

SCOPE ITEMS:
Driven by road project; Some bad pipe at Saunders Crescent

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- 0 Protects health, safety, lives of citizens
- 0 Meets new, or maintains existing, regulatory compliance
- 0 Provides a net savings in operations and/or maintenance costs
- 0 Enhances social, cultural, recreational or aesthetic opportunities
- 0 Improves customer service, convenience for citizens
- 0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- 0 Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

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Funding (in thousands) *

* Source: Study, Design/Acquisition, Construction

502
PROJECT NAME: New Well at Steere Farm

PROJECT ID: UT-WS-08-12
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: Pittsfield Twp.
PRIORITY: Important
TOTAL COST: $1,900,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Increase well water supply capacity for water treatment plant.

SCOPE ITEMS:
Develop new well at Steere Farm.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

2 Protects health, safety, lives of citizens
3 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

8 TOTAL SCORE

BENEFICIAL IMPACTS:
Improves reliability of potable well water supply for the water system. Well water is critical to the treatment process as well as provides a back-up supply if the river supply is not available.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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 Beyond FY15: $0

Total: $1,900
PROJECT NAME: Nob Hill Water Main Replacements

PROJECT ID: UT-WS-08-31
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES
SYSTEM PLANNING

PLANNING AREA: Central
PRIORITY: Urgent
TOTAL COST: $240,000
YEARS IN CIP: 0

IDENTIFIED NEED:

SCOPE ITEMS:
Flow testing for Water Master Plan, low pressure; Examine possible boundary adjustment to move into West High; Main breaks are steady (in lower pressure district) - - will likely need to replace w/m if switched over to higher pressure district;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

4 Protects health, safety, lives of citizens
4 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

16

BENEFICIAL IMPACTS:
Reduced fire flow in existing mains is addressed

MASTER PLAN REFERENCE:

STUDY REFERENCE:
POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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SCHEDULE JUSTIFICATION:
Fire flow upgrades are needed

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Beyond FY15

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PROJECT NAME: North State Street Water Main Replacement

PROJECT ID: UT-WS-08-35
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Central
PRIORITY: Desirable
TOTAL COST: $125,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Replace water main in conjunction with brick pavement replacement

SCOPE ITEMS:
Road work (brick pavement replacement) is driver; Hydrant coverage needs to be reviewed;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- Protects health, safety, lives of citizens
- Meets new, or maintains existing, regulatory compliance
- Provides a net savings in operations and/or maintenance costs
- Enhances social, cultural, recreational or aesthetic opportunities
- Improves customer service, convenience for citizens
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- Reduces energy consumption, impacts on the environment

TOTAL SCORE
14

BENEFICIAL IMPACTS:
Eliminate water quality issues and prevent costly main break repairs.

LOCATION MAP:

IDENTIFIED NEED:
Replace water main in conjunction with brick pavement replacement

SCOPE ITEMS:
Road work (brick pavement replacement) is driver; Hydrant coverage needs to be reviewed;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- Protects health, safety, lives of citizens
- Meets new, or maintains existing, regulatory compliance
- Provides a net savings in operations and/or maintenance costs
- Enhances social, cultural, recreational or aesthetic opportunities
- Improves customer service, convenience for citizens
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- Reduces energy consumption, impacts on the environment

TOTAL SCORE
14

BENEFICIAL IMPACTS:
Eliminate water quality issues and prevent costly main break repairs.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

STUDY REFERENCE: Staff Initiated
POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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Funding (in thousands) *

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PROJECT NAME: North University Court Water Main

PROJECT ID: UT-WS-10-17

PROJECT TYPE: New Construction

SUBMITTED BY: PUBLIC SERVICES

SYSTEM PLANNING

PLANNING AREA: Central

PRIORITY: Desirable

TOTAL COST: $235,000

YEARS IN CIP:

IDENTIFIED NEED:

SCOPE ITEMS:
Review other records for streets and utilities - conditions and expected remaining life; Main breaks nearby on Observatory; Fire flow issue, look to upsize and loop, but can't cross district boundary; possible re-forestation opportunities?

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:

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Beyond FY15 | Total
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$0

506
**PROJECT NAME**: Ozone Residual Monitor Replacement  
**PROJECT ID**: UT-WS-08-08  
**PROJECT TYPE**: Replacement  
**SUBMITTED BY**: PUBLIC SERVICES WATER TREATMENT  
**PLANNING AREA**: West  
**PRIORITY**: Important  
**TOTAL COST**: $150,000  
**YEARS IN CIP**: 0

**IDENTIFIED NEED:**  
Replace ozone residual monitors before failure. They are critical for process control at the WTP.

**SCOPE ITEMS:**  
Replace ozone residual monitors.

**PROJECT JUSTIFICATION:**  
Value indicates the degree to which the project will impact the below items:  
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact; 2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
<tr>
<th>Item</th>
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<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<td>Improves customer service, convenience for citizens</td>
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<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
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<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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</table>

**TOTAL SCORE**: 6

**BENEFICIAL IMPACTS:**  
Residual monitors are critical components for compliance with Safe Drinking Water Act.

**MASTER PLAN REFERENCE**: Water Treatment Plant Facilities Master Plan - 2006

**STUDY REFERENCE**:  
**POLICY/OTHER REFERENCE**:

**SCHEDULE**:

<table>
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<td>7/1/2011</td>
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**SCHEDULE JUSTIFICATION**:  
Replace before monitors exhibit signs of failure.

**FUNDING (IN THOUSANDS)***

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PROJECT NAME: Packard Water Main Bore

PROJECT ID: UT-WS-01-25

PROJECT TYPE: New Construction

SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

IDENTIFIED NEED:
Removal of master meters at The Village

SCOPE ITEMS:
Look at doing by open cut when road is resurfaced/ reconstructed

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

3 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
4 Improves customer service, convenience for citizens
2 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
Improved water quality and fire protection by improving the distribution system grid.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

SCHEDULE JUSTIFICATION:
Provide improved water quality and fire protection. Design is 70% complete from 2001.

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<td>$0</td>
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PROJECT NAME: Pauline/WHS Return Loop Water Main

PROJECT ID: UT-WS-01-26
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

IDENTIFIED NEED:
Pipe capacity needed was validated by the Water Distribution Master Plan in 2000

SCOPE ITEMS:
Install 16 inch transmission main near boundary of West High Service (WHS) and Gravity Districts Strengthen fire flows in southern part of WHS.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
- 1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

2 Protects health, safety, lives of citizens
2 Meets new, or maintains existing, regulatory compliance
1 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
-1 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
1 Reduces energy consumption, impacts on the environment

8 TOTAL SCORE

BENEFICIAL IMPACTS:
This main will form part of the West High Service Transmission Loop which will allow full service on Ultimate Maximum Day.

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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<td>Construction</td>
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SCHEDULE JUSTIFICATION:
The system is not at maximum.

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**PROJECT NAME:** Plant #2 Hydraulic Corrections

**PROJECT ID:** UT-WS-92-28

**PROJECT TYPE:** Replacement

**SUBMITTED BY:** PUBLIC SERVICES WATER TREATMENT

**PLANNING AREA:** West

**PRIORITY:** Desirable

**TOTAL COST:** $725,000

**YEARS IN CIP:** 16

**IDENTIFIED NEED:**
Bottlenecks at the WTP prevent plant from maximizing throughput of water.

**SCOPE ITEMS:**
Remove bottlenecks at the plant to improve ability to treat plant capacity.

**PROJECT JUSTIFICATION:**
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
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**TOTAL SCORE**

**BENEFICIAL IMPACTS:**
Increase water production capacity and meet agreement with Scio township.

**MASTER PLAN REFERENCE:** Water Treatment Plant Facilities Master Plan - 2006

**STUDY REFERENCE:**
Service Agreement with Scio Township (1994)

**POLICY/OTHER REFERENCE:**

**SCHEDULE:**

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<td>12/1/2015</td>
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**SCHEDULE JUSTIFICATION:**
Based on predicted increase in water demand. Project will be delayed to await results and prioritization of Water System Master Plan.

<table>
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<th>FY11</th>
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**Funding (in thousands) *

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* $0
PROJECT NAME: Raw Water Main (30") Upgrade (Seventh Easterly)

PROJECT ID: UT-WS-09-03
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES

PLANNING AREA: South
PRIORITY: Urgent
TOTAL COST: $1,530,000
YEARS IN CIP:

IDENTIFIED NEED:
Replace in conjunction with road reconstruction project

SCOPE ITEMS:
Part of Stadium Corridor; Part of main (across golf course) is transite; Close coordination with WTP during construction;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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Rev  Revenue Source Name  Prior Years  FY10  FY11  FY12  FY13  FY14  FY15  Beyond FY15  Total
6907  BOND/NOTE PROCEEDS  $0   $0   $1,530  $0  $0  $0  $0  $0  $1,530

511
PROJECT NAME: Repair Roof of South Industrial Tank

PROJECT ID: UT-WS-08-14

PROJECT TYPE: Capital Maintenance

SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: South

PRIORITY: Desirable

TOTAL COST: $500,000

YEARS IN CIP: 0

IDENTIFIED NEED:
Corrosion identified on underside of roof at S Industrial Tank.

SCOPE ITEMS:
Repair roof by coating areas where corrosion is apparent on tank interior roof.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

Protects health, safety, lives of citizens 0
Meets new, or maintains existing, regulatory compliance 2
Provides a net savings in operations and/or maintenance costs 0
Enhances social, cultural, recreational or aesthetic opportunities 0
Improves customer service, convenience for citizens 0
Maintains or improves existing infrastructure, facilities [Expansion = (-1)] 4
Reduces energy consumption, impacts on the environment 0

TOTAL SCORE 6

BENEFICIAL IMPACTS:
Repairing the coating system will extend the life of the tank and prevent a potential structural failure.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:
Repair before coating failure could have structural consequences.

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</table>
PROJECT NAME: Repair Valves Behind Ozone Building

PROJECT ID: UT-WS-08-15
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT
PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $250,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Valves south of ozone disinfection facility are not operable.

SCOPE ITEMS:
Build valve pits and repair/replace non-functional valve south of ozone disinfection facility.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
3 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

6 TOTAL SCORE

BENEFICIAL IMPACTS:
Cleaning and maintenance of the ozone contactors will be possible.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE: Staff Initiated

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

<table>
<thead>
<tr>
<th>Study</th>
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<td>7/1/2010</td>
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<tr>
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<td>7/1/2011</td>
</tr>
</tbody>
</table>

SCHEDULE JUSTIFICATION:
Necessary to ensure ability to maintain contents of ozone contactors.

<table>
<thead>
<tr>
<th>Funding (in thousands) *</th>
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<tbody>
<tr>
<td>Prior Years</td>
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<td>Rev</td>
</tr>
<tr>
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</table>

513
PROJECT NAME: Replace Filter Effluent Turbidimeters
PROJECT ID: UT-WS-08-11
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT
PLANNING AREA: West
PRIORITY: Urgent
TOTAL COST: $200,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Replace filter effluent turbidimeters before failure. They are not supported any longer by the manufacturer and are critical to process control at the WTP.

SCOPE ITEMS:
Replace filter effluent turbidimeters with current model. Older model is no longer supported by the manufacturer.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

3 Protects health, safety, lives of citizens
4 Meets new, or maintains existing, regulatory compliance
1 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
2 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
Reliable and accurate turbidimeters are critical for effective water treatment. If monitors fail, it could result in a violation of Safe Drinking Water Act regulations.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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<thead>
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<td>Replace units before existing units fail.</td>
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Funding (in thousands) *

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Rev: 6907
PROJECT NAME: Replace Filter Press Plates

PROJECT ID: UT-WS-08-05
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- 0 Protects health, safety, lives of citizens
- 2 Meets new, or maintains existing, regulatory compliance
- 3 Provides a net savings in operations and/or maintenance costs
- 0 Enhances social, cultural, recreational or aesthetic opportunities
- 0 Improves customer service, convenience for citizens
- 3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
- 0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
Plates must be replaced because they have exceeded their useful life.

MASTER PLAN REFERENCE:

STUDY REFERENCE:
POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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<tbody>
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<tr>
<td>Construction</td>
<td>7/1/2012</td>
<td>7/1/2013</td>
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</tbody>
</table>

SCHEDULE JUSTIFICATION:
Replace plates prior to coating failure.

REV Revenue Source Name | Prior Years | FY10 | FY11 | FY12 | FY13 | FY14 | FY15 | Beyond FY15 | Total
---|---|---|---|---|---|---|---|---|---
6907 BOND-NOTE PROCEEDS | $0 | $0 | $0 | $0 | $350 | $0 | $0 | $0 | $350

TOTAL $350

LOCATION MAP:

IDENTIFIED NEED:
Filter press plates have reached end of usable life.

SCOPE ITEMS:
Replace filter press plates.
PROJECT NAME: Replace Limeslakers at Water Treatment Plant

PROJECT ID: UT-WS-06-05

PROJECT TYPE: Replacement

SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PROJECT JUSTIFICATION:
Existing limeslakers are nearing their useful life and are deteriorated. They have been repaired several times. It is not cost effective to continue to rebuild this equipment.

BENEFICIAL IMPACTS:
Lime softening is one of the main treatment processes at the WTP. Limeslakers are a critical component of this process. Without the ability to soften the water, the WTP would not be able to provide a suitable finished product to the community.

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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<thead>
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SCHEDULE JUSTIFICATION:
Existing limeslakers are nearing their useful life and are deteriorated. They have been repaired several times. It is not cost effective to continue to rebuild this equipment.

REV  Revenue Source Name                  Prior Funding (in thousands) *  Beyond Beyond Total
6907 BOND/NOTE PROCEEDS  | 6907 BOND/NOTE PROCEEDS | FY10 | FY11 | FY12 | FY13 | FY14 | FY15 | FY15 | Total
$250                      | $2,750 | $0   | $0   | $0   | $0   | $0   | $0   | $0   | $3,000

516
PROJECT NAME: Replace Section of Well Transmission Pipe From Steere Farm

PROJECT ID: UT-WS-08-13
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES, WATER TREATMENT

PLANNING AREA: South
PRIORITY: Urgent
TOTAL COST: $6,400,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Increased capacity of well water from Steere Farm to the WTP.

SCOPE ITEMS:
Increase size of well transmission pipe and replace sections in poor condition.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
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<th>Value</th>
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<tr>
<td>1</td>
<td>Meets new, or maintains existing, regulatory compliance</td>
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<tr>
<td>2</td>
<td>Provides a net savings in operations and/or maintenance costs</td>
</tr>
<tr>
<td>0</td>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<tr>
<td>0</td>
<td>Improves customer service, convenience for citizens</td>
</tr>
<tr>
<td>4</td>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
</tr>
<tr>
<td>2</td>
<td>Reduces energy consumption, impacts on the environment</td>
</tr>
</tbody>
</table>

TOTAL SCORE: 9

BENEFICIAL IMPACTS:
Increase supply and reliability of well water transmission to the Water Treatment Plant. Well water is critical to the treatment process as well as provides a back-up supply if the river supply is not available.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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<tr>
<td>Construction</td>
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<td>7/1/2015</td>
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</tbody>
</table>

SCHEDULE JUSTIFICATION:
Improve reliability of the well water supply for the City's drinking water.

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
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<tr>
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<td>$150</td>
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</table>
PROJECT NAME: Replace Steere Farm Well Pump Engines

PROJECT ID: UT-WS-08-06
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES
WATER TREATMENT

PLANNING AREA: Pittsfield Twp.
PRIORITY: Urgent
TOTAL COST: $1,400,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Remote control capability for Steere Farm Well pump engines.

SCOPE ITEMS:
Replace engines with dual-drive engines capable of operating on electric as well as natural gas. Provide capability of remote start/stop.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
<tr>
<th>Item</th>
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<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
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<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities [Expanson = (-1)]</td>
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<tr>
<td><strong>TOTAL SCORE</strong></td>
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</table>

BENEFICIAL IMPACTS:
Wells are a critical component of the source water for the water treatment plant. Without reliable pump engines, the reliability of the well supply to the plant is jeopardized.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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<td>Construction</td>
<td>1/1/2012</td>
<td>12/1/2012</td>
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</table>

SCHEDULE JUSTIFICATION:
Project to be initiated before major overhaul of engines is required.

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
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<td>$0</td>
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</table>
PROJECT NAME: Russet, Russell & Redeemer Water Main Replacement

PROJECT ID: UT-WS-10-15
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $1,400,000
YEARS IN CIP:

IDENTIFIED NEED:
Main near end of useful life; break rate increasing

SCOPE ITEMS:
Single feed to sub, looped on itself; Look at modeling and/or flow testing; If flow more than one hydrant in sub, no water at back (north end) of sub; break rate increasing at Redeemer and Russell intersection (n'ly);

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact; 2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- Protects health, safety, lives of citizens: 0
- Meets new, or maintains existing, regulatory compliance: 0
- Provides a net savings in operations and/or maintenance costs: 0
- Enhances social, cultural, recreational or aesthetic opportunities: 0
- Improves customer service, convenience for citizens: 0
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]: 0
- Reduces energy consumption, impacts on the environment: 0

TOTAL SCORE: 0

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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<td>Design/Acquisition:</td>
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SCHEDULE JUSTIFICATION:

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Revenue Source Name: BOND/NOTE PROCEEDS

Funding (in thousands) *

Rev 6907

Beyond FY15 Total $1,400

519
PROJECT NAME: Sludge Storage Repairs

PROJECT ID: UT-WS-08-16
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: West
PRIORITY: Desirable
TOTAL COST: $250,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Mixers in sludge storage do not work.

SCOPE ITEMS:
Replace mixers with mechanical mixers or jet mixers.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
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<tr>
<td>Meets new, or maintains existing, regulatory compliance</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities</td>
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<tr>
<td>Reduces energy consumption, impacts on the environment</td>
<td>6</td>
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</tbody>
</table>

TOTAL SCORE: 6

BENEFICIAL IMPACTS:
Sludge storage will be available for service.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

<table>
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<tr>
<td>Construction</td>
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<td>7/1/2013</td>
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SCHEDULE JUSTIFICATION:
Sludge storage is not available until repairs are completed. Ability to process sludge residuals is limited without use of this storage facility.

<table>
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<tr>
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<th>Prior Years</th>
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<th>FY11</th>
<th>FY12</th>
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Funding (in thousands) *
PROJECT NAME: Sodium Hydroxide Feed System Expansion

PROJECT ID: UT-WS-10-04
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES, WATER TREATMENT

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $3,000,000
YEARS IN CIP:

IDENTIFIED NEED:
Reduce finished water hardness and increase alkalinity to improve finished water quality.

SCOPE ITEMS:
Expand sodium hydroxide feed system at the Water Treatment Plant.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

Protects health, safety, lives of citizens: 2
Meets new, or maintains existing, regulatory compliance: 2
Provides a net savings in operations and/or maintenance costs: -1
Enhances social, cultural, recreational or aesthetic opportunities: 0
Improves customer service, convenience for citizens: 4
Maintains or improves existing infrastructure, facilities [Expansion = (-1)]: -1
Reduces energy consumption, impacts on the environment: 0

TOTAL SCORE

BENEFICIAL IMPACTS:
Reduces finished water hardness per recommendation of public advisory committee. Increases finished water alkalinity which reduces rusty water problems in distribution system. Reduces applied turbidity to the filters which improves regulatory compliance

MASTER PLAN REFERENCE: Water Master Plan (2006)

STUDY REFERENCE: Resident Initiated

POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:

Funding (in thousands) *

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PROJECT NAME: South Boulevard Water Main

PROJECT ID: UT-WS-01-30
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: South
PRIORITY: Important
TOTAL COST: $160,000
YEARS IN CIP: 7

IDENTIFIED NEED:
Address water quality issues

SCOPE ITEMS:
Filters on 6 homes; Field Operations flushes the main weekly; need to be aware of district boundaries if/when looped; coordinate with sanitary project;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact
2 Protects health, safety, lives of citizens
2 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
2 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
Construction of this main will eliminate color complaints and water quality issues. It will also replace a 4" main with an 8" looping main improving fire coverage.

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE:
POLICY/OTHER REFERENCE:

SCHEDULE:

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<td>Design/Acquisition</td>
<td>4/1/2012</td>
<td>7/1/2012</td>
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SCHEDULE JUSTIFICATION:
This work should be done while street is torn up for sewer lift station work. May be delayed due to easement acquisition.

<table>
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<tr>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
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522
PROJECT NAME: South Fifth Avenue Water Main

PROJECT ID: UT-WS-08-25
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Central
PRIORITY: Important
TOTAL COST: $220,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Lack of fire flow; undersized main

SCOPE ITEMS:
Fire flow between Liberty and Washington; Review model results from Master Plan for limits;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

4 Protects health, safety, lives of citizens
4 Meets new, or maintains existing, regulatory compliance
1 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE
15

BENEFICIAL IMPACTS:
Fire flow upgrades will be provided

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:
POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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<tr>
<th>Study</th>
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<th>SCHEDULE JUSTIFICATION:</th>
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<tr>
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<td>Needed to provide service to new court/police facility.</td>
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Funding (in thousands) *

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<th>FY10</th>
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* Beyond FY15: $0, Total: $220
PROJECT NAME: Stadium Boulevard Water Main Replacement (Hutchins to Kipke)

PROJECT ID: UT-WS-10-12
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES
PROJECT MANAGEMENT

PLANNING AREA: South
PRIORITY: Important
TOTAL COST: $310,000
YEARS IN CIP:

IDENTIFIED NEED:

SCOPE ITEMS:
Driven by road project

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

- Protects health, safety, lives of citizens: 0
- Meets new, or maintains existing, regulatory compliance: 0
- Provides a net savings in operations and/or maintenance costs: 0
- Enhances social, cultural, recreational or aesthetic opportunities: 0
- Improves customer service, convenience for citizens: 0
- Maintains or improves existing infrastructure, facilities [Expansion = (-1)]: 0
- Reduces energy consumption, impacts on the environment: 0

TOTAL SCORE: 0

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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</table>

Funding (in thousands) *

524
PROJECT NAME: State Street Raw Water - Reconstruct Interconnection

PROJECT ID: UT-WS-01-31
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING
PLANNING AREA: South
PRIORITY: Desirable
TOTAL COST: $180,000
YEARS IN CIP: 7

IDENTIFIED NEED:
Needs to be reconstructed to have set of dual isolations valves at interconnection

SCOPE ITEMS:
Traffic Control; Needs to be done before or with resurfacing;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

| Protects health, safety, lives of citizens | 2 |
| Meets new, or maintains existing, regulatory compliance | 0 |
| Provides a net savings in operations and/or maintenance costs | 0 |
| Enhances social, cultural, recreational or aesthetic opportunities | 0 |
| Improves customer service, convenience for citizens | 0 |
| Maintains or improves existing infrastructure, facilities [Expansion = (-1)] | 0 |
| Reduces energy consumption, impacts on the environment | 0 |

TOTAL SCORE: 5

BENEFICIAL IMPACTS:
Well water safe for drinking may supply the distribution system if treated water source cannot meet demand in emergency conditions.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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<td>8/1/2010</td>
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SCHEDULE JUSTIFICATION:
Aging valves need to be replaced to ensure reliability of the isolation at this emergency inter-connection point.

<table>
<thead>
<tr>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>Funding (in thousands) *</th>
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<tbody>
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525
PROJECT NAME: Structural Repair and Painting Basins #4 and #5 at Water Treatment Pla
PROJECT ID: UT-WS-06-04
PROJECT TYPE: Capital Maintenance
SUBMITTED BY: PUBLIC SERVICES
WATER TREATMENT
PLANNING AREA: West
PRIORITY: Urgent
TOTAL COST: $500,000
YEARS IN CIP: 2

IDENTIFIED NEED:
Coating failure on basins require repair.

SCOPE ITEMS:
Recoat all metal components of basins. Perform structural steel repair/replacement as needed for components beyond the stage of restoration by recoating.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
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<th>Item</th>
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<td>Protects health, safety, lives of citizens</td>
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<td>Meets new, or maintains existing, regulatory compliance</td>
</tr>
<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
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<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
</tr>
<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
</tr>
<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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</table>

TOTAL SCORE: 8

BENEFICIAL IMPACTS:
Coatings are beyond useful life. Delay of this project could affect structural integrity of metals in this basin. Structural repair will facilitate future maintenance and eliminate short-circuiting in the basin, which will improve treatment.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE: POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:
Coatings are beyond useful life. Delay of project increases the potential of more costly structural repairs in the future.

<table>
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<tr>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
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Rev Revenue Source Name
6907 BOND/NOTE PROCEEDS

Funding (in thousands) *

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<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
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</table>
PROJECT NAME: Structural Repairs Project - Phase 2

PROJECT ID: UT-WS-08-04
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $1,750,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Repair deteriorating concrete and brick at the Water Treatment Plant.

SCOPE ITEMS:
Repair deteriorating concrete and brick at the Water Treatment Plant.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
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<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
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<td>Protects health, safety, lives of citizens</td>
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<td>Meets new, or maintains existing, regulatory compliance</td>
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<td>Provides a net savings in operations and/or maintenance costs</td>
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<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
<td>3</td>
</tr>
<tr>
<td>Reduces energy consumption, impacts on the environment</td>
<td>0</td>
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</tbody>
</table>

TOTAL SCORE: 6

BENEFICIAL IMPACTS:
Replacement/rehabilitation of infrastructure before it fails is more cost effective than waiting until failure. Proper timing of this work reduces its net cost.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:
Work must be completed before structural failures increase the potential repair costs.

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<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
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PROJECT NAME: Taylor Street Water Main

PROJECT ID: UT-WS-10-13

PROJECT TYPE: New Construction

SUBMITTED BY: PUBLIC SERVICES

PROJECT MANAGEMENT

PLANNING AREA: Northeast

PRIORITY: Important

TOTAL COST: $420,000

YEARS IN CIP:

IDENTIFIED NEED:
Increase fire coverage

SCOPE ITEMS:
Raised during negotiations for easement across Northside School for Hiawatha Water Main; At Pontiac Trail there is an existing stub; Pear Street has only 2" main - - look to upsize?;

PROJECT JUSTIFICATION:

Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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Funding (in thousands) *

528
PROJECT NAME: Traver Road PRV

PROJECT ID: UT-WS-08-27
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Northeast
PRIORITY: Desirable
TOTAL COST: $100,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Need to modify reduced pressure zones due to configuration of Hideaway Lane development

SCOPE ITEMS:
Coordinate with the operation of the existing pressure reduced zone; Include in Traver Knoll district? Or out of Traver Knoll - - examine operation from bigger perspective;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

2 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
2 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
2 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
1 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:
Allows closed valve to be opened allowing flow during pressure drops.

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

Study: 7/1/2010 10/1/2010
Design/Acquisition: 7/1/2010 10/1/2010
Construction: 10/1/2010 7/1/2011

SCHEDULE JUSTIFICATION:
Completion of Hideaway Lane development anticipated for 2008.

<table>
<thead>
<tr>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
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PROJECT NAME: Valhalla Drive Water Main
PROJECT ID: UT-WS-10-14
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: South
PRIORITY: Important
TOTAL COST: $325,000
YEARS IN CIP:

IDENTIFIED NEED:
Lack of water system in area to be serviced with sanitary system

SCOPE ITEMS:
Coordinate with sanitary project; Private drive, no right-of-way; easements needed; How to loop out?

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

Protects health, safety, lives of citizens: 0
Meets new, or maintains existing, regulatory compliance: 0
Provides a net savings in operations and/or maintenance costs: 0
Enhances social, cultural, recreational or aesthetic opportunities: 0
Improves customer service, convenience for citizens: 0
Maintains or improves existing infrastructure, facilities [Expansion = (-1)]: 0
Reduces energy consumption, impacts on the environment: 0

TOTAL SCORE: 0

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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Rev Revenue Source Name
6907 BOND/NOTE PROCEEDS

**Funding (in thousands)***
PROJECT NAME: Vaughn Street Water Main

PROJECT ID: UT-WS-10-08
PROJECT TYPE: New Construction
SUBMITTED BY: PUBLIC SERVICES
WATER TREATMENT

PLANNING AREA: Central
PRIORITY: Important
TOTAL COST: $245,000
YEARS IN CIP:

IDENTIFIED NEED:
Reduced fireflow/coverage

SCOPE ITEMS:
Small undersized main; hydrant in middle of block has no flow; Review hydrant coverage;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0  Protects health, safety, lives of citizens
0  Meets new, or maintains existing, regulatory compliance
0  Provides a net savings in operations and/or maintenance costs
0  Enhances social, cultural, recreational or aesthetic opportunities
0  Improves customer service, convenience for citizens
0  Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0  Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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<td>$245</td>
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Legend:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

IDENTIFIED NEED:
Reduced fireflow/coverage

SCOPE ITEMS:
Small undersized main; hydrant in middle of block has no flow; Review hydrant coverage;

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0  Protects health, safety, lives of citizens
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0  Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0  Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

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Legend:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

531
PROJECT NAME: Washtenaw Water Main Replacement

PROJECT ID: UT-WS-06-14

PROJECT TYPE: Replacement

SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Northeast

PRIORITY: Important

TOTAL COST: $1,470,000

YEARS IN CIP: 2

IDENTIFIED NEED:

SCOPE ITEMS:

PROJECT JUSTIFICATION:

Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

2 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
4 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
3 Improves customer service, convenience for citizens
3 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

20

BENEFICIAL IMPACTS:

Improve water service reliability.

MASTER PLAN REFERENCE:

STUDY PLAN REFERENCE:

POLICY/OTHER REFERENCE: Staff Initiated

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PROJECT NAME: Washtenaw Water Main Upgrade (South University to Hill Street)

PROJECT ID: UT-WS-10-06

PROJECT TYPE: New Construction

SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Central

PRIORITY: Desirable

TOTAL COST: $560,000

YEARS IN CIP:

IDENTIFIED NEED:
Undersized water main needs to be upsized

SCOPE ITEMS:
New Life Church court agreement requirement; Previously noted spot under sidewalk (s'ly side?); Gas main recently relocated to under sidewalk? Same sidewalk?

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact
0 Protects health, safety, lives of citizens
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0 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

TOTAL SCORE

BENEFICIAL IMPACTS:

LOCATION MAP:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

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Funding (in thousands) *
PROJECT NAME: Water Distribution System Evaluation - Master Plan Update

PROJECT ID: UT-WS-08-24
PROJECT TYPE: Study
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: City-wide
PRIORITY: Important
TOTAL COST: $500,000
YEARS IN CIP: 0

IDENTIFIED NEED:
Protect Public Health by providing adequate water quality and quantity to residents under all operating conditions

SCOPE ITEMS:
Involvement of WTP and Field necessary. GIS and AMR data critical to project

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
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<table>
<thead>
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<th>Impact</th>
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<td>Protects health, safety, lives of citizens</td>
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<tr>
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<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
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<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
<td>0</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
<td>3</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities {Expansion = (-1)}</td>
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<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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</table>

TOTAL SCORE: 13

BENEFICIAL IMPACTS:
This examination of the city's water distribution system will identify system deficiencies and guide future needs for the system.

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE: Staff Initiated

POLICY/OTHER REFERENCE: Staff Initiated

SCHEDULE:

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SCHEDULE JUSTIFICATION:
This study is needed to satisfy the MDEQ.

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<tr>
<th>Revenue Source Name</th>
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<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
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Beyond FY15 Total: $500
PROJECT NAME: Water Distribution System Master Plan - Asset Management

PROJECT ID: UT-WS-09-05
PROJECT TYPE: Study
SUBMITTED BY: PUBLIC SERVICES SYSTEM PLANNING

PLANNING AREA: Citywide
PRIORITY: Desirable
TOTAL COST: $500,000
YEARS IN CIP:

IDENTIFIED NEED:
Project needed to identify the appropriate level of service to manage the water system and its assets

SCOPE ITEMS:
Accurate inventory of the water system in GIS necessary for project to begin. Project requires collaboration with Field Operations and Water Plant staff. Project will require public involvement to determine desired level of service.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
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<tr>
<th>Item</th>
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<tr>
<td>Protects health, safety, lives of citizens</td>
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<tr>
<td>Meets new, or maintains existing, regulatory compliance</td>
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<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
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<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
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<tr>
<td>Improves customer service, convenience for citizens</td>
<td>3</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
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<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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</tbody>
</table>

TOTAL SCORE

BENEFICIAL IMPACTS:
Provides a defensible base for future O&M and capital planning for the water system.

MASTER PLAN REFERENCE: Water Master Plan (2000)

STUDY REFERENCE: Water Treatment and Facilities Master Plan (2006)

POLICY/OTHER REFERENCE:

SCHEDULE:

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<tr>
<td>6907</td>
<td>BOND/NOTE PROCEEDS</td>
<td>$0</td>
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Funding (in thousands) *
**PROJECT NAME:** Water Laboratory Information Management System

**PROJECT ID:** UT-WS-10-07

**PROJECT TYPE:** Replacement

**SUBMITTED BY:** PUBLIC SERVICES WATER TREATMENT

**PLANNING AREA:** West

**PRIORITY:** Important

**TOTAL COST:** $200,000

**YEARS IN CIP:**

**IDENTIFIED NEED:**
Process and Lab Data management systems are cumbersome and outdated. It is difficult to retrieve data and reporting functions are limited.

**SCOPE ITEMS:**
Replace informal spreadsheet data management system with comprehensive Laboratory Information Management System (LIMS).

**PROJECT JUSTIFICATION:**
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
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<th>Item</th>
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<td>Protects health, safety, lives of citizens</td>
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<tr>
<td>Meets new, or maintains existing, regulatory compliance</td>
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<tr>
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<tr>
<td>Improves customer service, convenience for citizens</td>
<td>2</td>
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<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
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</tr>
<tr>
<td>Reduces energy consumption, impacts on the environment</td>
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**TOTAL SCORE**

**BENEFICIAL IMPACTS:**
More efficient management of data, better reporting, and easier retrieval of information.

**MASTER PLAN REFERENCE:**

**STUDY REFERENCE:**

**POLICY/OTHER REFERENCE:** Staff Initiated

**SCHEDULE:**

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<tr>
<td>Construction:</td>
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<td>7/1/2011</td>
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**SCHEDULE JUSTIFICATION:**
Existing system is cumbersome to use, has limited functionality and is maintenance intensive. Replacing with a LIMS will improve lab efficiency, increase functionality and storage data.

**Funding (in thousands) **

<table>
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<tr>
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| | | $0 | $0 | $200 | $0 | $0 | $0 | $0 | $0 | $200 |
PROJECT NAME: Water Treatment Plant Residuals Disposal Study

PROJECT ID: UT-WS-08-02

PROJECT TYPE: Study

SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

IDENTIFIED NEED:
Determine long term plan for residuals pond.

SCOPE ITEMS:
Study alternatives for long term plan for residuals pond.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
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2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact
0 Protects health, safety, lives of citizens
4 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
2 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
4 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
1 Reduces energy consumption, impacts on the environment

TOTAL SCORE 9

BENEFICIAL IMPACTS:
Without a long term solution for handling water treatment residuals, the Water Treatment Plant does not have a reliable means of handling residuals when its filter presses are out of service for maintenance.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

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537
PROJECT NAME: Well Booster Station

PROJECT ID: UT-WS-92-35

PROJECT TYPE: New Construction

SUBMITTED BY: PUBLIC SERVICES

WATER TREATMENT

PLANNING AREA: TBD

PRIORITY: Important

TOTAL COST: $1,500,000

YEARS IN CIP: 16

IDENTIFIED NEED:
Increase well water capacity to WTP.

SCOPE ITEMS:
Add booster pumping station to well water line.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

2 Protects health, safety, lives of citizens
3 Meets new, or maintains existing, regulatory compliance
-1 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
2 Improves customer service, convenience for citizens
-1 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
-1 Reduces energy consumption, impacts on the environment

TOTAL SCORE

4

BENEFICIAL IMPACTS:
Increased plant capacity, improved winter operations - both for sludge handling and water quality, and increased reliability of quality source water.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

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SCHEDULE JUSTIFICATION:
Necessary improvement to maintain future reliability of water treatment plant operation. Project delayed to await completion of Water Resources Study.

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<td>$0</td>
<td>$350</td>
<td>$1,150</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$1,500</td>
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</table>

538
PROJECT NAME: West High Service Pump and Electrical Upgrade

PROJECT ID: UT-WS-92-37
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES WATER TREATMENT

PLANNING AREA: West
PRIORITY: Urgent
TOTAL COST: $3,450,000
YEARS IN CIP: 16

IDENTIFIED NEED:
Replace west high service pumps to meet increased demand from Scio Township.

SCOPE ITEMS:
Replace west high service pumps with larger capacity pumps. Modify electrical system to accommodate new pumps.

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protects health, safety, lives of citizens</td>
<td>1</td>
</tr>
<tr>
<td>Meets new, or maintains existing, regulatory compliance</td>
<td>3</td>
</tr>
<tr>
<td>Provides a net savings in operations and/or maintenance costs</td>
<td>2</td>
</tr>
<tr>
<td>Enhances social, cultural, recreational or aesthetic opportunities</td>
<td>0</td>
</tr>
<tr>
<td>Improves customer service, convenience for citizens</td>
<td>2</td>
</tr>
<tr>
<td>Maintains or improves existing infrastructure, facilities [Expansion = (-1)]</td>
<td>4</td>
</tr>
<tr>
<td>Reduces energy consumption, impacts on the environment</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

BENEFICIAL IMPACTS:
Meet projected water demands, increase revenue through increased water sales, Scio Township pays for most of the work.

MASTER PLAN REFERENCE: Water Treatment Plant Facilities Master Plan - 2006

STUDY REFERENCE: Service Agreement with Scio Township (1994)

POLICY/OTHER REFERENCE: Service Agreement with Scio Township (1994)

SCHEDULE:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study</td>
<td>7/1/2009</td>
<td>12/1/2009</td>
</tr>
<tr>
<td>Design/ Acquisition</td>
<td>12/1/2009</td>
<td>6/1/2010</td>
</tr>
</tbody>
</table>

SCHEDULE JUSTIFICATION:
Based on projected water demands and water service agreement with Scio Township. Project has not yet been completed as contract "triggers" have not previously been met.

<table>
<thead>
<tr>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>Beyond FY15</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOND/NOTE PROCEEDS</td>
<td>$0</td>
<td>$0</td>
<td>$180</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<td>$0</td>
<td>$180</td>
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<tr>
<td>CONTRIBUTED CAPITAL-OTHER FUN</td>
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<td>$0</td>
<td>$3,270</td>
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<tr>
<td>$0</td>
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<td>$3,450</td>
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539
PROJECT NAME: West Stadium Water Main Replacement (Pauline Intersection)

PROJECT ID: UT-WS-09-01
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES
PROJECT MANAGEMENT

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $250,000
YEARS IN CIP:

IDENTIFIED NEED:
SCOPE ITEMS:
Drived by road project

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:

-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

<table>
<thead>
<tr>
<th></th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design/Acquisition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
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</table>

SCHEDULE JUSTIFICATION:

Funding (in thousands) *

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>Beyond FY15</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>6907</td>
<td>BOND/NOTE PROCEEDS</td>
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<td>$0</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$250</td>
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</tbody>
</table>

* Funding amounts are rounded to the nearest thousand.
PROJECT NAME: West Stadium Water Main Replacement (Pauline to Hutchins)

PROJECT ID: UT-WS-09-02
PROJECT TYPE: Replacement
SUBMITTED BY: PUBLIC SERVICES
PROJECT MANAGEMENT

PLANNING AREA: West
PRIORITY: Important
TOTAL COST: $675,000
YEARS IN CIP:

IDENTIFIED NEED:

SCOPE ITEMS:
Driven by road project

PROJECT JUSTIFICATION:
Value indicates the degree to which the project will impact the below items:
-1 = Negative Impact; 0 = No Impact; 1 = Minimal Positive Impact;
2 = Some Positive Impact; 3 = Positive Impact; 4 = High Positive Impact

0 Protects health, safety, lives of citizens
0 Meets new, or maintains existing, regulatory compliance
0 Provides a net savings in operations and/or maintenance costs
0 Enhances social, cultural, recreational or aesthetic opportunities
0 Improves customer service, convenience for citizens
0 Maintains or improves existing infrastructure, facilities [Expansion = (-1)]
0 Reduces energy consumption, impacts on the environment

0 TOTAL SCORE

BENEFICIAL IMPACTS:

MASTER PLAN REFERENCE:

STUDY REFERENCE:

POLICY/OTHER REFERENCE:

SCHEDULE:

<table>
<thead>
<tr>
<th>Study</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design/Acquisition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SCHEDULE JUSTIFICATION:

<table>
<thead>
<tr>
<th>Rev</th>
<th>Revenue Source Name</th>
<th>Prior Years</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>Beyond FY15</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

Funding (in thousands) *

Beyond FY15 Total $675