Double-Down Rate Increases may be necessary.

Loan Interest Rates = Predicted to be Higher

Multiple smaller contracts = more administrative fees

Construction Delays = Higher Future Cost

Reliability issues remain for Clean Water & Fire Flow

Development moratoriums may happen

Funding availability is unknown

Risk that remain for Rate Payers:

- Add a few system improvements
- Provides Water Service to VSP
- Finishes the Angaside Booster Pump Project

Take 2% in Gran and 2% in Loan from DOM

Option 1:

The presented options are as follows:

Consultant and representative from Department of Commerce will be available for questions.

Choose from amongst Public Works Director, City Fire Chief, Auditor, and a representative of Director of Finance, and a representative of Director of Public Works. Final decision on the Water System

Capital Improvement Funding Options

1. Water System Capital Improvement Funding Options – City Administrator

Mayor's Choice called the meeting to order at 8:33 a.m.

James T. Terry Wilson

President, Mayor's Choice, Commissioner Olesen and Commissioner Moore

Commissioner

Commissioner

SPECIAL COMMISSION MEETING

CITY OF SHELLTON, WASHINGTON
EPAs, which are federal entities that regulate water use, have funding from various sources to consider the 2% of medium-term costs. She said the funding allocation is not based on their assessment of the benefits, but rather on how it contributes to development and growth.

Ms. Anne Campbell, employee of Washington State Department of Commerce and Resident of Mason County, said one right now.

Mr. Chris Unger said there is an opportunity of funding in the future and this is an opportunity for advantages funds.

Chief Executive Officer of SR&R, she said it's not the answer and it is time for the City of Shelton to move forward in preparing for growth.

Mr. Edward said if we do not make the improvements in the area then what is the opportunity for growth. She said need to respond that we can't predict what the state will do but if we do not comply now it is just a matter of cost.

CMR's problem is that we do not have water reserves and supply and what would that be.

Ms. Curry, who is a member of the system, said it is time to respond all of what occurred with the system and the proclamation.

Mr. Chris Unger, consultant, responded system development charges as new customers hook up. An example is the new Mason County facility which hooks up to the system and there will be a change to them.

CMR's response is to put the system in the Comp Plan that is part of the growth protection. He said that some of the customers they will pay and to the extent they will not be customers they would not.

Ms. McCueestion asked if there is a plan for citizens in the area to hook up to the public system.

CMR's response is that the growth area has been that but if Shelton Hill moves forward the growth could be.

Mr. Holden McCueestion, Shelton Mason County Chamber of Commerce Executive Director, asked what the growth at the utility 8.9% in debt service interest.

- Save the utility 8.9% in debt service interest
- Minimize risk of "Double-Dirty Customer Rate Increases"
- Minimize Interest Rates on Future Construction Loans
- Minimize Construction Delay = Higher Future Costs with Inflation
- Minimize Development Moratoriums in Shelton & VicA
- Minimize Risk - Health, Reliability, Free Flows
- Lowest Risk of All Options

- Is there a plan to pay for the next five years and for the years this will erase to the citizens in the area be paying for any

- Water bills will go up 6% to 9%

- Adds several system improvements
- Completes more of the Upper Mountain View Pressure Zone
- Funds the Andrews Booster Pump Project
- Provides service to WSP
- S24M in C&L and 68M loan from DOL

Option 3,
Mayor Cronce adjourned the meeting at 10:52 a.m.

Adjournment

Mayor Cronce adjourned the meeting at 10:52 a.m.

Including with minutes are hand copies of the Station's Water System Capital Improvements and Operations

made.

said staff will bring a contract presentation with Department of Health to the next week and a decision will need to be

staff’s recommendation to the Commission is Option #3, which they believe is best for our community.

City Clerk Look

Mayor Cronce

In the event of a fire, Mr. Campbell said she is very excited about the City of Shelton’s future.

Cloak and dagger programs to them before going to the Public Works Board. She said the concept of green money is not

2.5% interest and to send all water and sewer projects that are eligible for the Share Revolving Fund so well as

you can’t grow unless you have good solid infrastructure. The legislature has been directed to charge a base rate of

for business in the future. She said the City of Shelton has a very young population which means we are growing and

programs you are considering systems or you have a huge hardship. A hardship is defined as a very high rate

household income to be the base rate for water rates, approximately $33,000, is about $59,00 a month, so the rate
Friday, April 25, 2014
Commissioner Study Session

Options and Capital Improvements

Shelton's Water System
What is the Problem?

- **Group A systems must supply water at minimal volumes**
  - To put out a fire
  - To keep providing water if the tank is cut off from the source

- **Fire Regulations say**
  - 1,500 gal per minute for 2 hours
  - Maintain at least 20 psi while pumping water to the fire

- **Standby Regulations say**
  - 2 days water supply for area - 200 gal per ERU
  - Maintain at least 20 psi for both days

- **We do not meet these standards in Angleside**

- **We have made plans to build the Upper Mountain View Pressure Zone in compliance with the standards.**
  - The one line in the area does not yet meet these standards
How much risk do we have?
- Contamination - boil order
- Pressure
- Insufficient supply - water stops flowing or is distributed at low
- Not enough water to put out a fire

What are we risking?
- Other
- Sabotage
- Contamination
- Natural disaster
- Component / equipment failure
- Power Outage

Events leading to a loss of supply

It's about the risk
Regulatory Context

• Federal and State
  ▪ State RCW -- Dept. of Health Requirements
  ▪ State RCW – Water System Coordination Act
    ▪ WAC State – Shelton’s Water System Rules

• LOCAL - City Established Policies
  ▪ City Comprehensive Plan (2007)
  ▪ Water System Plan (2010)
standby water until supply returns

a storage tank must provide fire flow and

If water is "cut off" from the source (Supply),

near Shetlon Springs

Water Source - All water comes from wells

Issues - All Water Service Areas
Angleside Pressure Zone

(Show On Overall System Map)
A break in any portion will interrupt service to AngleIsle.

1. Pumped up to 300 feet to the AngleIsle Tank
2. Flow to pumps in the downtown area
3. Pumped from our wells to the High School Tank

Water must be:

AngleIsle Tank Supply System
Angleside Tank

- When the Angleside tank drains out 31% of its volume, pressures drop below minimum. As remaining water is distributed it is increasingly likely to pick up contamination from ground water or cross connections.
Entire volume of the tank (Preferred Solution)

Build a pressure station to allow use of the

Neighborhood

Develop another well in the Angleside

Add a 3rd pump on the Valley Floor

Alternative Solutions
Upper Mountain View
Pressure Zone
Water System Problems

1. Insufficient Storage Tank Volumes and Water Pressure
2. Commitment to Washington State Patrol
3. Insufficient System Operational Flexibility and Reliability
4. Ability to provide for Growth & Development
5. Public Safety and Risk
   - Peacock Ridge
   - Shelton Hills
   - Shelton Area
   - John's Prairie Area
   - Others...
6. Cost
   - System Flexibility/Redundancy/Reliability
   - Clean Drinking Water – Avoid "Boil Water Orders"
   - Unknown Future Funding Availability
   - Delaying Construction is Subject to Initiation (4%/yr)
   - Future Loans = If available will have higher interest rates
AREA 1 IMPLEMENTATION
FUNDING OPTION 2
- PRV Station
- New Tank(s)
- Upgrade to Well #3
  - New Pumps
  - Controls
- New Watermain - ±3,000 LF

ALSO Completes - ANGLESIDE BPS

UPPER MT. VIEW PRESSURE ZONE IMPLEMENTATION

AREA 1 IMPLEMENTATION
FUNDING OPTION 3
- Well #1 Ground Tank Reservoir
- Treatment for Sulfur Dioxide
- Booster Pump Station
- New Watermain - ±3,000 LF
- Tank #2
  (From Option 2 Depending on Bids)

INCLUDES ALL OF OPTION 2

JOHN'S PRAIRIE - AREA 2 IMPLEMENTATION
- New Watermain - ±3,000 LF
- PRV Station
FUNDING OVERVIEW
KEY ASSUMPTIONS for ALL OPTIONS
(See Spreadsheet Handout of Jan 27th)

1. Must build everything in Water System Plan by 2028

2. Shelton’s growth rate is estimated at 1% Annually

3. Construction cost increases at approx. 4% Annually

4. The Earlier we build Capital Improvements:
   • Improve Public Safety and reduce Risk:
     – Provide Clean Drinking Water
     – Improve Safety with Adequate Fire Flow
     – Increase Water System Reliability
   • Shelton becomes Growth and Development Ready
Model uses: 4% labor & 6% benefits (Total 67%)

- Operating Cost Increase - Key Driver of Rate Increase

**Reason: Operating Costs**

Water Rates need to increase 3% to 5%

---

**Key Facts for All Options**

---

**Key Facts**
AVERAGE MONTHLY RESIDENTIAL RATE INCREASE PER YEAR

- "Optional" Savings Plan
- OPTION 2 Cap. Imp. Rate Increase
- M & O Rate Increase
- OPTION 3 Cap. Imp. Rate Increase
Water System Problems

1. Storage Tank Volumes and Water Pressure
2. Commitment to Washington State Patrol
3. System Operational Flexibility and Reliability
4. Ability to provide for Growth & Development
   - Shelton Hills
   - Industrial Area
   - Peacock Ridge
   - John's Prairie Area - Others...
5. Public Safety and Risk
   - Peacock Ridge
6. $ COST $
Water System Problems

1. Storage Tank Volumes and Water Pressure

2. Commitment to Washington State Patrol

3. System Operational Flexibility and Reliability

4. Ability to provide for Growth & Development
   - Shelton Hills  - Industrial Area
   - Peacock Ridge  - John’s Prairie Area - Others...?

5. Public Safety and Risk
   - Clean Drinking Water – Avoid “Boil Water Orders”
   - System Flexibility/Redundancy/Reliability

6. $ COST $
   - Unknown Future Funding Availably
   - Delaying Construction is subject to inflation (4%/YR)
   - Future Loans = Will have higher interest rates
- Future Loans = Will have higher interest rates
- Delaying Construction is subject to initiation (4%/yr)
- Unknown Future Funding Availability

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- System Flexibility/Redundancy/Reliability
- Clean Drinking Water - Avoid "Boil Water Orders"
- Public Safety and Risk
  - Peacock Ridge
  - John's Prairie Area - Others...
  - Shelton Hills
  - Industrial Area
  - Ability to provide for Growth & Development
  - System Operational Flexibility and Reliability
  - Commitment to Washington State Patrol
  - Storage Tank Volumes and Water Pressure

Water System Problems
Staff Recommendations...

- **Prefers OPTION 3**
  - Build as much as the available resources will allow
  - Take advantage of Grant & 1% Interest Loans
  - Minimize Public Health Risk
  - Maximize System Reliability

- **Why?**
  - Because of future unknowns
  - Sustainable Predictable Customer Rate Increases
  - Saves the Water Utility $7.8 Million in Debt Service
DISCUSSION
Water System ELEMENTS

What makes up a Water System?

- Main Water System Elements
  - Sources (wells)
  - Storage (tanks)
  - Distribution System (pipes)

(See Water System Map)
Mountain View Pressure Zone the must
Impacts Angle side Pressure Zone and Upper

• 20 PSI Minimum during Fire Events
• 30 PSI Minimum during Normal Domestic Operation

WATER PRESSURE REGULATIONS

WATER PRESSURE
STORAGE VOLUME - “KEY LACKING ELEMENT”

• STORAGE Regulations have 2 Criteria:
  – Stand-By Storage (SS) = 2 Days x Average Daily Demand
    » 200 gallons per Equivalent Residential Unit (ERU) customer
      (NOTE: Calcs. All Sources ACTIVE Except the largest)
  – Fire Suppression Storage (FSS) = Minimum Fire Flow
    » 1,500 gallons per minute for 2 hours
      (Sources NOT used in Calcs.-- Existing Storage)

NOTE: Standards allow these two volumes to be “NESTED” or the smaller volume to be stored as a portion of the larger volume

• Impacts Angleside Pressure Zone and Upper Mountain View Pressure Zone the must
**KEY:** „Not a preferred choice of our Commissioners‟

- Does not allow money to be set aside for future improvements  
  - Surely „double-digit rate increases to catch-up“  
  - Delays most system improvements beyond 15 years  
  - Health, Reliability, Fire Flows, Development Regulations  
  - NOT meeting our Regional Commitments

**Puts Shelton at a very high risk for:**

- Water rates still must go up 3% to 5% to cover operating costs
- Delay all work for Anglesea Booster Pump Station
- Meet our Regional Commitment to WSP
  - Spend $750,000 on water improvements by July 2014
- Only meet our 2013 Water Bond Requirements
- Delays as many capital improvements as possible
- Only does the absolute minimum

Option 1
Option 2
Take $2.1M Grant and $2.1M Loan from DOH

- Finishes the Angleside Booster Pump Project
- Provide Water Service to WSP
- Adds a few system improvements

- **RISK** that remain for Rate Payers:
  - Funding availability is unknown
  - Development moratoriums may happen
  - Reliability issues remain for Clean Water & Fire Flow
  - Construction Delays = Higher Future Cost
  - Multiple smaller contracts = more administrative fees
  - Loan Interest Rates = Predicted to be Higher
  - Double-Digit Rate Increases may be necessary
• Save the utility $7.8M in debt service interest
• Minimize Risk of “Double-Digit Customer Rate Increases“
• Minimize Interest Rates on Future Construction Loans
• Minimize Construction Delay = Higher Future Cost with Inflation
• Minimize Development Moratoriums in Shellton & UGA
• Minimize Risk - Health, Reliability, Fire Flows

Lowest Risk of all Options
- Sustainable Predictable Customer Rate Increases
- Delays the Fewer Projects
- Water Rates Will Go up 3% to 5%
- Adds Several System Improvements
- Completes more of the Upper Min View Pressure Zone
- Finishes the Angeliside Booster Pump Project
- Provides Service to WSP

Option 3 - $2.1M Grant and $6.9M Loan from DOH

Option 3
“Minimizing Public Health Risk”

Board of Health - Regulations for Public Water Systems

1) PROVIDE CLEAN DRINKING WATER - People don’t get sick from drinking the water!

2) HAVE AVAILABLE WATER - When you turn on your faucet, water comes out!

3) PROVIDE ADEQUATE FIRE FLOW – When a fire happens, we have enough water supply to put it out!
Annual Water Utility Expenditures

- 67% Operating Costs
- 17% Service Debt - Option 3
- 5% Service Debt - Option 2
- 11% Bond Debt - Option
PRV Station

New Watermain - +3,000 LF

JOHN'S PRAIRIE - AREA 2 IMPLEMENTATION

Includes All of Option 2
(From Option 2 Depending on Bids)

- Tank #2
- New Watermain - +3,000 LF
- Booster Pump Station
- Treatment for Sulfur Dioxide
- Well #1 Ground Tank Reservoir

Funding Option 3

AREA 1 IMPLEMENTATION

Also Completes - Angledide BPS

- New Watermain - +3,000 LF
- Controls
- New Pumps
- Upgrade to Well #3
- New Tank(s)
- PRV Station
Financial Model and Calculation Assumptions:
1. **KEY**: We must build everything by 2028
2. Shelton Growth Rate is estimated at 1% Annually
3. Inflation for construction cost is at 4% Annually
4. The gapfill we can build infrastructure to REDUCE OUR RISK for Public Safety, Fire Flow, and System Reliability.
5. The gapfill we can build infrastructure the MORE READY we are for Growth & Development.

### Option 2

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Window of Current Water Comprehensive Plan

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### Difference Between Option 2 vs Option 3

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Study Session Handout: January 27, 2014

Printed: 4/24/2014