

Nampa Wastewater Upgrade

Process Update/Survey #3

March 8, 2012



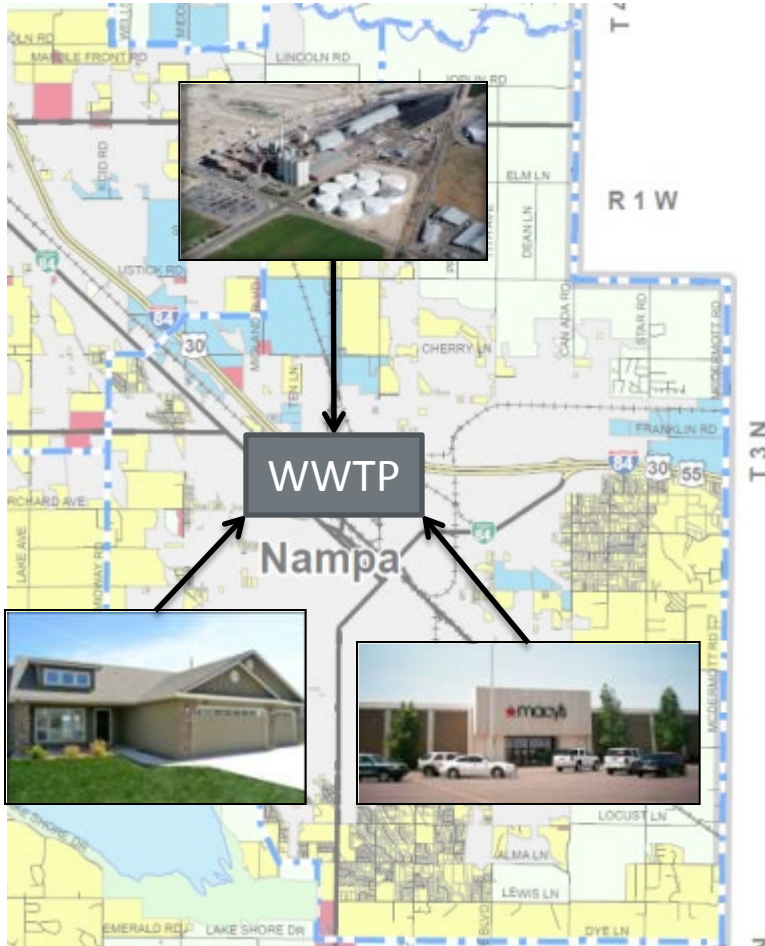
City of Nampa
Wastewater Division
www.cityofnampa.us/wastewater



Tonight's agenda

- Overview of why upgrade is necessary
- Decision making process
- Near term
- Long term
- Near term financing options
- Public involvement
- Next steps

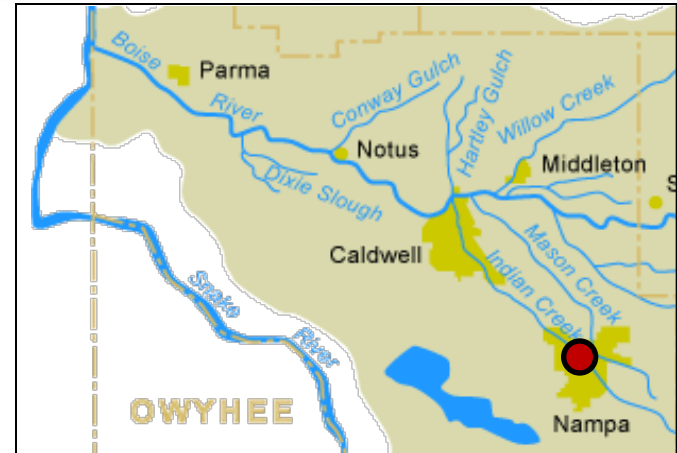
Why Nampa needs to upgrade



- City generates approx. 10 million gallons of wastewater per day
- Equates to approx. 3.65 billion gallons of wastewater per year
- Without treatment, the City will be discharging raw sewage and industrial waste to Indian Creek

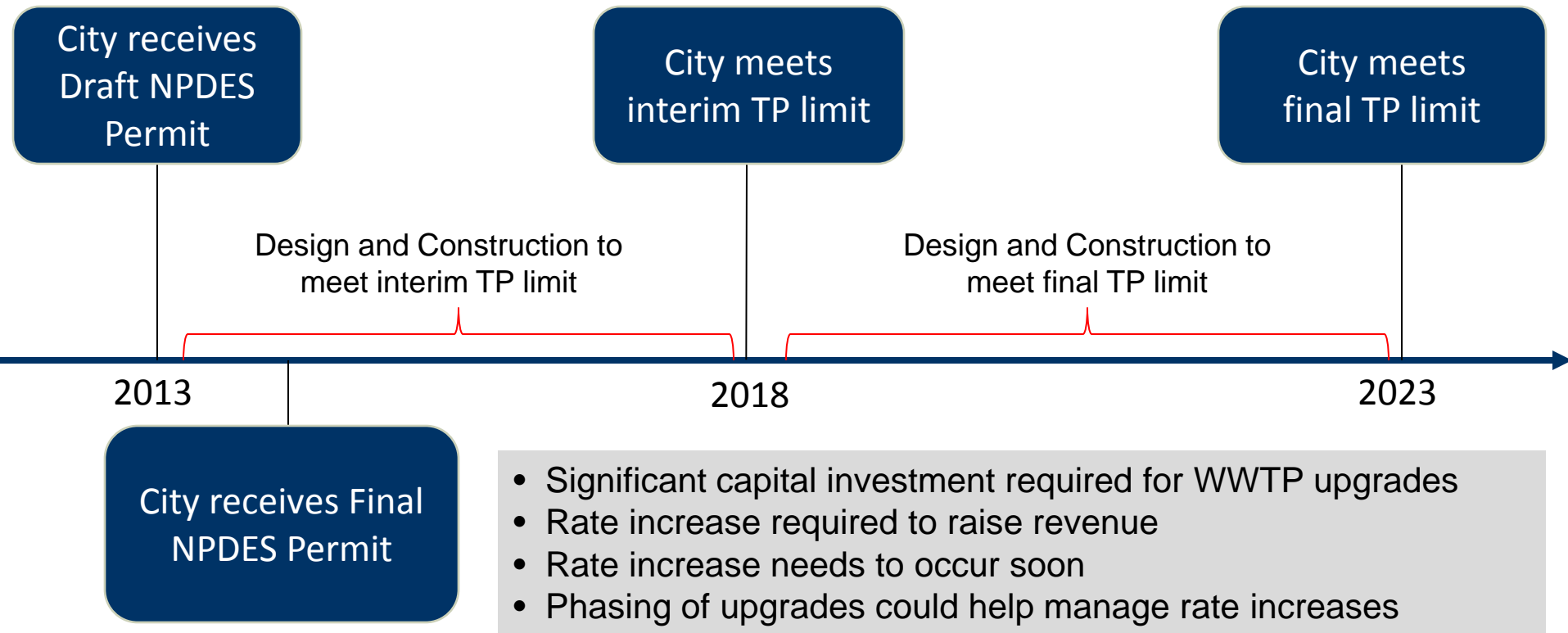
Why Nampa Needs to Upgrade

- Nampa's existing NPDES permit does not require phosphorus removal
- Existing treatment plant discharges \approx 5 mg/l TP
- Nampa's new NPDES permit will require phosphorus removal to as low as 0.07 mg/l



Program Schedule

- What's driving the overall schedule? . . .



Basic Steps of the Decision Making Process

Business Case Evaluation Steps

- 1 Form Expert team
- 2 Identify challenge and levels of service
- 3 Brainstorm alternatives and screen fatal flaws
- 4 Collect data on capital, operation and maintenance, risks, and benefits costs based on levels of service
- 5 Perform net present value analysis
- 6 Select preferred alternative

Phasing

- City is considering upgrading its wastewater system in two phases.
 - Near term
 - Long term
- Phasing the upgrades will give the City:
 - Flexibility
 - Allow time to navigate through the uncertain regulatory processes
 - Result in a smaller near-term sewer rate increase

Near Term

- The first phase of upgrades will require improvements to be made to the treatment plant
- The City will need to raise sewer rates to make the near-term improvements
- The estimated costs for the near term improvements are \$26.8 million

Phase I Capital Improvements and Costs

- Phase I capital improvements:
 - Third aeration basin
 - Chemical addition facility
 - Solids handling facility
 - Anaerobic digester
 - Primary effluent pump station
 - Demolish trickling filter
 - Demolish secondary clarifier

Item	Class 4 Cost Estimate (-25% to +40%)
Phase I Capital Cost	\$26,800,000
Phase I Annual O&M	\$1,372,000

Long Term

- The second phase would select and implement long-term improvements.
- The City has evaluated over 40 long-term upgrade options and narrowed the range to five possible options.

Five Treatment Options



(L) – Land

(W) - Water



1. Treat and pursue Direct Infiltration (L)
2. Treat and pursue Rapid Infiltration (L)
3. Treat and discharge to .5 mg/L TP with offsets (W)
4. Treat and discharge to .07 mg/L TP (W)
5. Do Nothing More (W)

Long Term Capital Costs

- The costs below include the initial \$26.8 million for the near-term upgrade:
 - **Direct Infiltration** – approximately \$80 million
 - **Rapid Infiltration** – approximately \$80 million
 - **Treat and Offset** – approximately \$35 million
 - **Treat to EPA Levels** – approximately \$60 million
 - **Do Nothing More** – \$0

Long Term Operation and Maintenance Costs

- The estimated annual operation and maintenance costs for each of the long term options are:
 - **Direct Infiltration** – \$1,372,000
 - **Rapid Infiltration** – \$2,402,000
 - **Treat and Offset** – \$3,028,000
 - **Treat to EPA Levels** – \$3,981,000
 - **Do Nothing More** – \$0

20-year Net Present Value Costs

- The 20-year net present value costs for each of the long term options are:
 - **Direct infiltration** – approximately \$100 million
 - **Rapid infiltration** – approximately \$100 million
 - **Treat and offset** – approximately \$60 million
 - **Treat to EPA levels** – approximately \$95 million
 - **Do Nothing More** – \$0

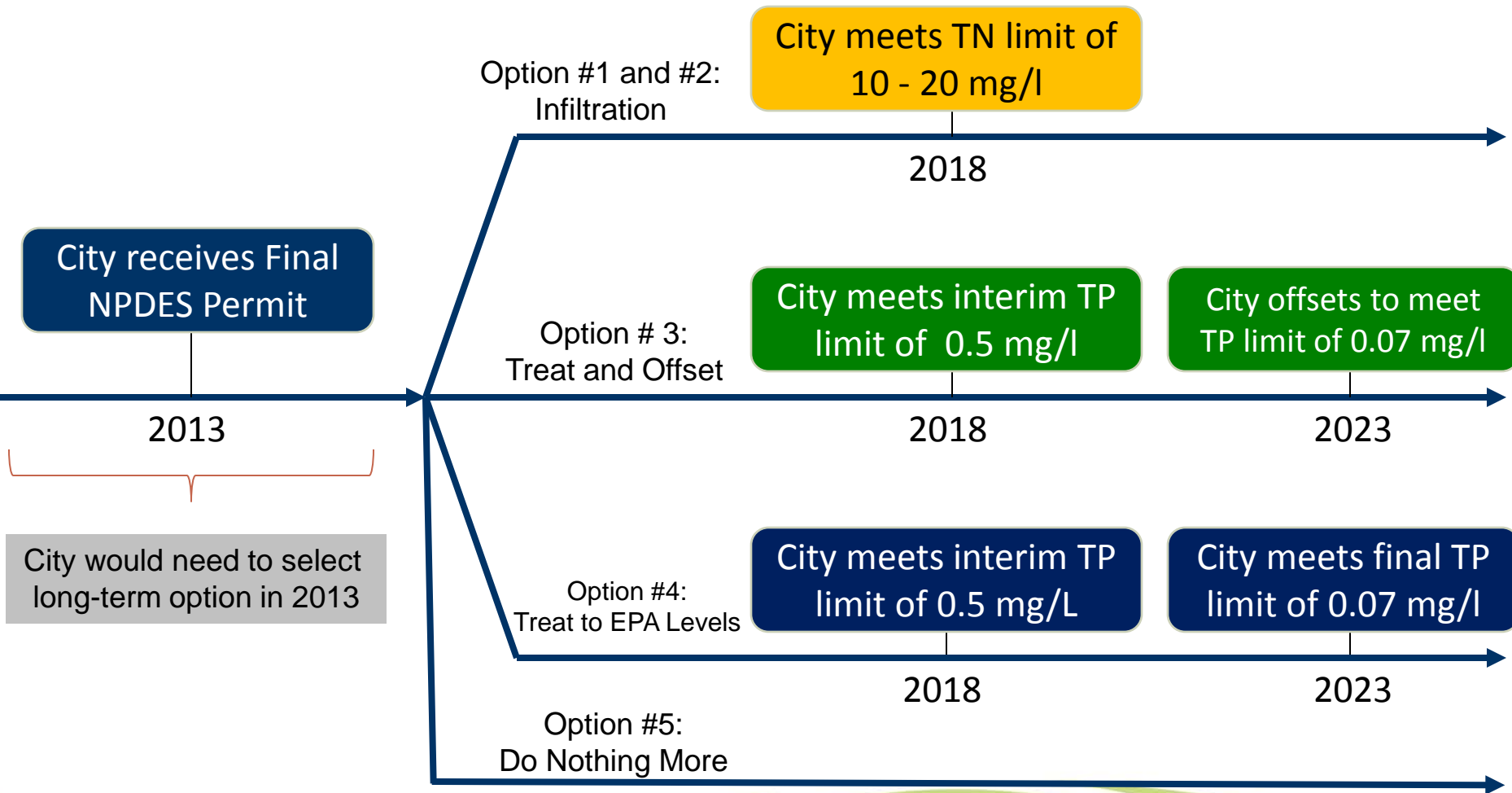
Fatal Flaws

Option	Fatal Flaws	
#1: Direct Infiltration	<ul style="list-style-type: none"> •Impermeable soils •Land area requirements 	<ul style="list-style-type: none"> •Ability to obtain permits •Land use
#2: Rapid Infiltration	<ul style="list-style-type: none"> •Impermeable soils •Land area requirements 	<ul style="list-style-type: none"> •Ability to obtain permits •Land use
#3: Treat and Offset	<ul style="list-style-type: none"> •Regulatory approvals •Contiguous land area •TP availability in drain 	<ul style="list-style-type: none"> •Ability to obtain permits •Irrigation district concerns
#4: Treat to EPA Levels	--	
#5: Do Nothing More	Lose the Court Cases	

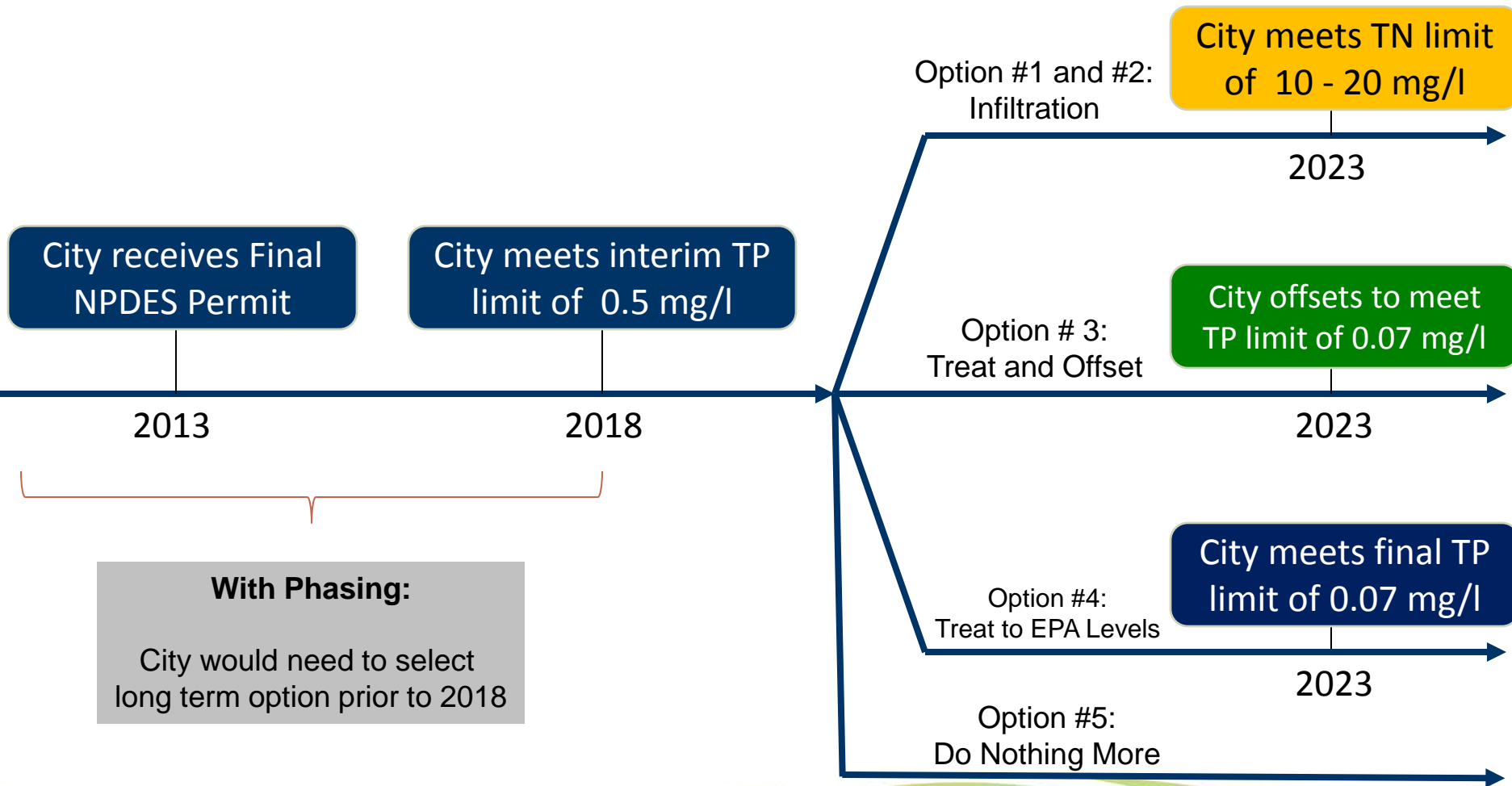
Risks and Benefits Trends

- **Direct/Rapid Infiltration**
 - Risk costs are front loaded and based on site characteristics
 - Many risk costs will be addressed through further study
 - Significant benefit from economic development potential
- **Treat and Offset/Treat to EPA Levels**
 - Risk costs are back loaded
 - Significant risk based on emerging regulatory issues
 - Limited economic development benefits
- **Do Nothing More**
 - Most significant risk costs

If Decision Now: Key Milestones for Each Option



If Decision Later: Re-Consider Key Milestones for Each Option



Overview of Financing

- Nampa's wastewater utility is an enterprise fund, which means it is a self-sufficient fund in the City government.
- The revenue for Nampa's wastewater fund is the money received through rates paid by the City's residents, businesses and industries and can only be used for wastewater services.

Overview of Financing

- Nampa's average residential wastewater rate is \$18.62 a month
- Nampa's wastewater rates will need to be increased to fund the necessary upgrades
- The funding options that Nampa is considering are:
 - Cash only funding
 - Cash and debt financing

Cash Funding

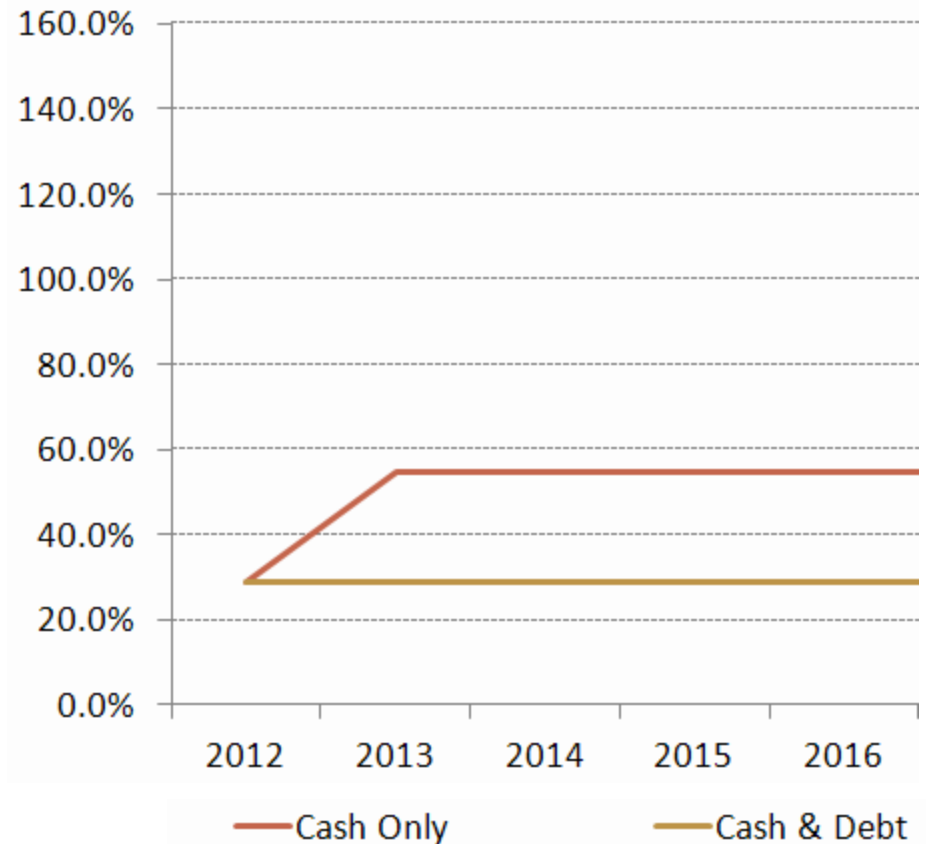
- Cash funding would require the City to collect the necessary funds before upgrades can be made
- Using the cash funding option would cause your sewer bill to be raised higher than if the City chooses the bond financing options
- Existing users would pay for upgrades that will serve future users

Debt Financing

- The City would pledge future sewer bill revenues for debt repayment
- The repayment would be spread over the years and your sewer bill would be increased at a lower/smaller amount
- Since the repayment would be spread over the years, both existing users and future users would pay for the upgrades

Phasing Impact on Rates

- If cash financing, rate increase approximately 50%
 - From \$18.62 to \$27.93
- If debt financing, rate increase approximately 30%
 - From \$18.62 to \$24.21



Public involvement

The city is involving the public in this decision in multiple ways:

- Industry Working Group
 - Major industries in Nampa
- Wastewater Advisory Group
 - Community representatives willing to spend more time to learn about the upgrade and provide their input
- Virtual Focus Group
 - Community representatives willing to give input at major milestones

Your input

- **Survey #1 – Outcomes** (October 2010)

Participants indicated that they are very satisfied with the current level of wastewater service.

The majority of participants indicated that the quality of service is more significant than cost.

Results are posted on

www.cityofnampa.us/wastewater

Your input

- **Survey #1 – Outcomes**

Participants ranked the following statements (in order) regarding upgrades to the treatment and disposal system:

- Upgrades should easily accommodate future conditions or requirements.
- Upgrades should ensure that water discharged from the treatment plant into Indian Creek is the highest quality.
- Upgrades should maintain the treatment plant's current level of minimal noise, odor and traffic in and out of the facility.

Your input

- **Survey #2 – Outcomes** (April 2011)

Participants ranked the following statements (in order) regarding importance of benefits and cost

- **29%** ranked reliability the most important benefit
- **25%** ranked cost the most important issue to consider in the decision-making process
- **25%** ranked environmental benefits the most important
- **21%** ranked social benefits the most important

Your input

- **Survey #2 – Outcomes**

59.3 % of respondents were supportive of re-using highly treated wastewater for agricultural or irrigation uses.

- *Results are posted on*

www.cityofnampa.us/wastewater

Survey #3

- **Survey #3** (March 2012)
 - Asks for your input on:
 - Phasing Nampa's upgrades
 - Your preference of long term upgrade options
 - How best to finance the near term upgrades
- It will take 10 minutes to complete.

Survey #3

- We encourage you to complete the survey online at www.cityofnampa.us/wastewater.
- You are welcome to invite colleagues and neighbors to complete the survey as well.
- All involved will be part of the City's Virtual Focus Group.

Next Steps

- Results of survey #3 will be posted on www.cityofnampa.us/wastewater
- City Council will make a decision on phasing and funding options in late March 2012.
- Anticipate public hearing in summer 2012 regarding Phase 1 (near term) sewer rate increase.

Thank you

Questions and Answers

For more information visit

www.cityofnampa.us/wastewater