






Nampa Wastewater Advisory Group
Workshop #4
October 12, 2017

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



Introductions and Today's Workshop

Michael Fuss, P.E., M.B.A., Public Works Director



Today's Objectives

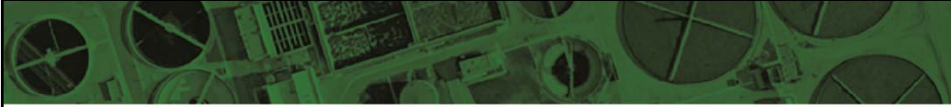
- Update the NWAG on the Nampa City Council's direction on the preferred alternative and review input from the Industrial Working Group
- Provide an overview of the cost of service methodology that will be used for developing rates for the Phase II upgrades
- Solicit feedback on the cost of service study approach
- Discuss next steps for public engagement



Feedback from NWAG #3



- A few clear themes emerged:
 - When asked to choose just one alternative, NWAG members overwhelmingly favored Alternative 2.5 (over 90%)
 - Alternatives 5 and 6 were ranked the lowest
 - Alternatives 2 and 2.5 were ranked the highest on comment sheets
- Other consistent themes included:
 - NWAG members saw value in reusing water and the benefits to industry and/or irrigation customers
 - The need to consider the future and long-term growth
 - Significant concerns about risks in Alternatives 5 and 6





Preferred Alternative Overview

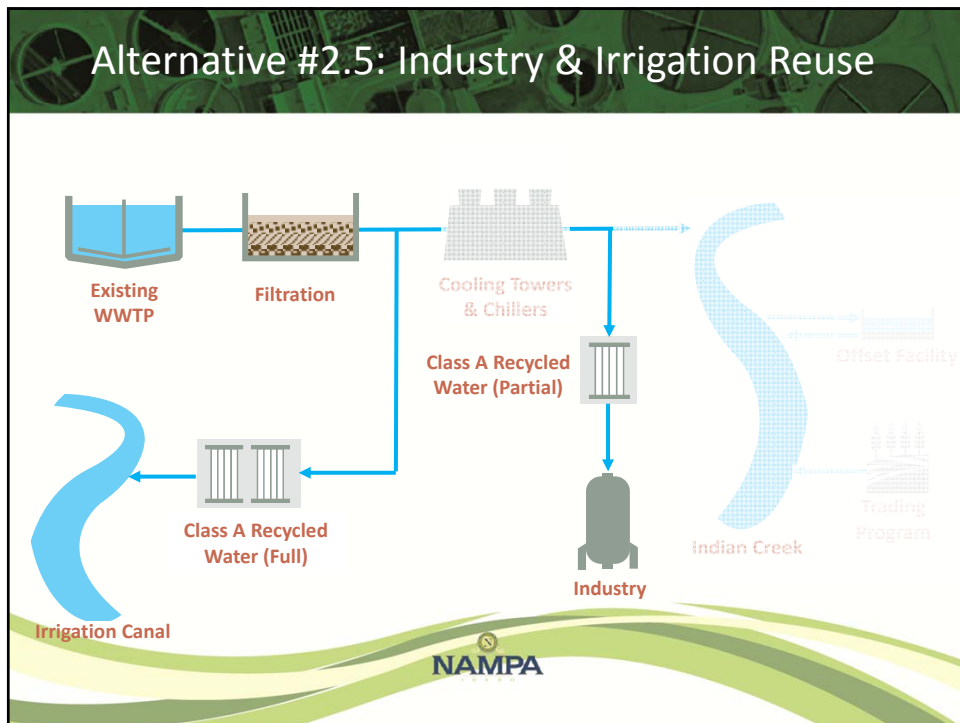
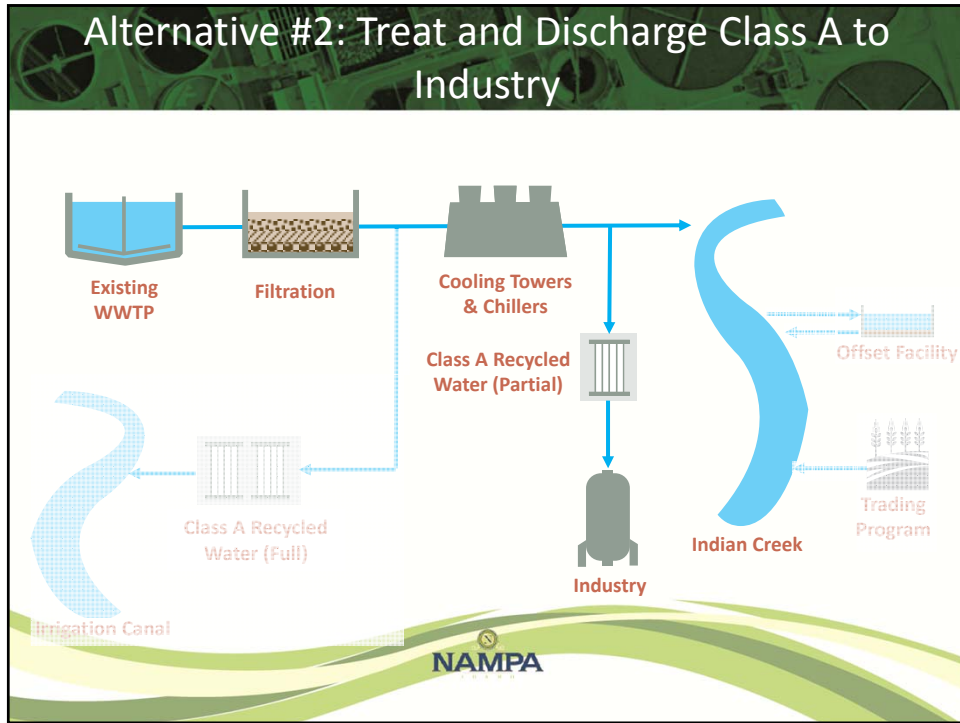
Matt Gregg, P.E., Brown & Caldwell



Reminder: Alternatives Summary

- Alternative 1 – Treat and Discharge
- Alternative 2 – Treat and Discharge Class A Reuse to Industry
- Alternative 2.5 – Treat and Discharge Class A to Industry and Irrigation
- Alternative 3 – Treat and Discharge to Irrigation
- ~~Alternative 4 – Treat and Offset~~
- Alternative 5 – Treat and Trade
- Alternative 6 – Do Nothing More





Reminder: Comparing the Alternatives – 2040

Alternatives	Capital	O&M	Risks	Benefits	2040 Net Present Value
1	\$115.2 M	\$134.8 M	\$41.2 M	\$0.3 M	\$381.9 M
2	\$119.3 M	\$139.3 M	\$41.6 M	\$16.0 M	\$371.7 M
2.5	\$120.9 M	\$142.3 M	\$41.5 M	\$18.9 M	\$372.2 M
3	\$117.2 M	\$137.5 M	\$59.8 M	\$1.2 M	\$411.4 M
5	\$99.9 M	\$118.9 M	\$92.4 M	\$0.9 M	\$398.8 M
6	\$0	\$0	\$504.9 M	\$0 M	\$713.4 M



Evaluation Summary

- Capital and operational costs are similar
- Alternative 5 has the highest level of risk (aside from Do Nothing More) due to the
 - Uncertainty in the trading framework
 - Long-term viability of trading
- Both Alternatives 2 and 2.5 provide benefit of potential economic development
- Alternative 2.5 becomes more favorable as the value of water increases beyond the assumed values



NWAG/Industrial Working Group Feedback

- When asked to choose just one alternative, NWAG members overwhelmingly favored Alternative 2.5
- Alternatives 2 and 2.5 were ranked the highest on comment sheets
 - NWAG members saw value in reusing water and the benefits to industry and/or irrigation customers
 - Members indicated the need to consider the future and long-term growth
- IWG is interested in developing recycled water program and sees potential in industrial reuse
- Alternatives 5 and 6 were ranked the lowest due to concerns with the risks associated




Direction from City Council

- Develop a recycled water program for Nampa to maximize the value of Nampa's treated water
- Look for opportunities to maximize the amount of water reused through a combination of industrial and irrigation reuse

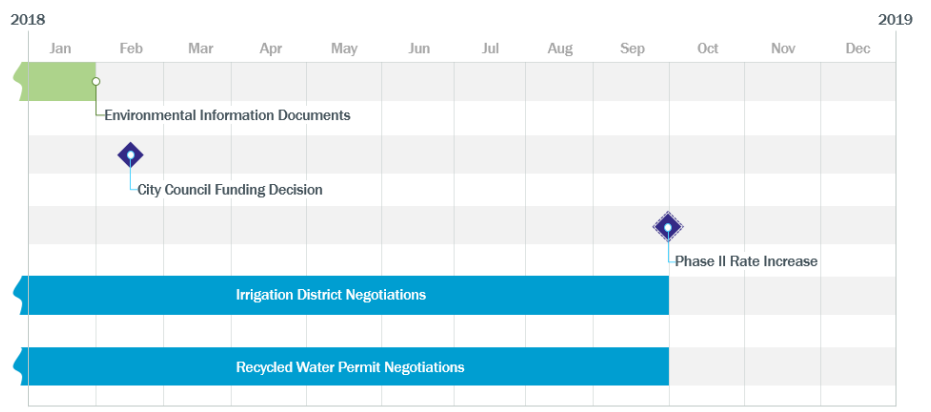


Addressing Fatal Flaws for Irrigation Reuse


- City staff and Wastewater Program Management are working with irrigation districts and DEQ to allow for irrigation reuse
- Potential obstacles (fatal flaws) associated with discharge to an irrigation canal:
 - Developing an agreement with irrigation canal company to allow discharge
 - Negotiating a recycled water permit that meets the assumed conditions for temperature discharge

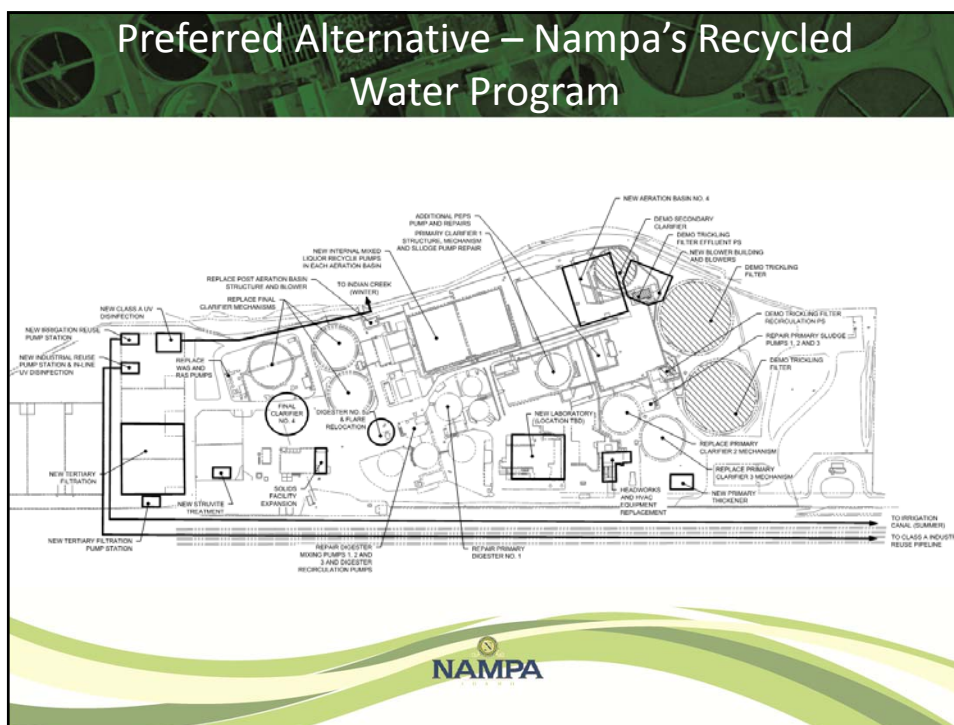
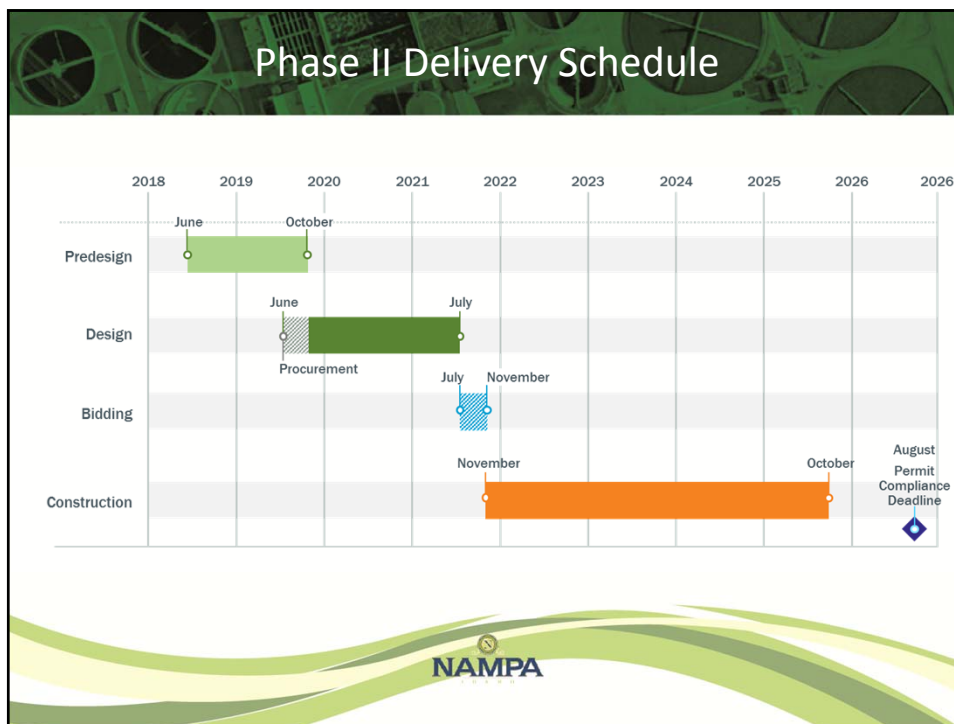


Near-Term Phase II Schedule




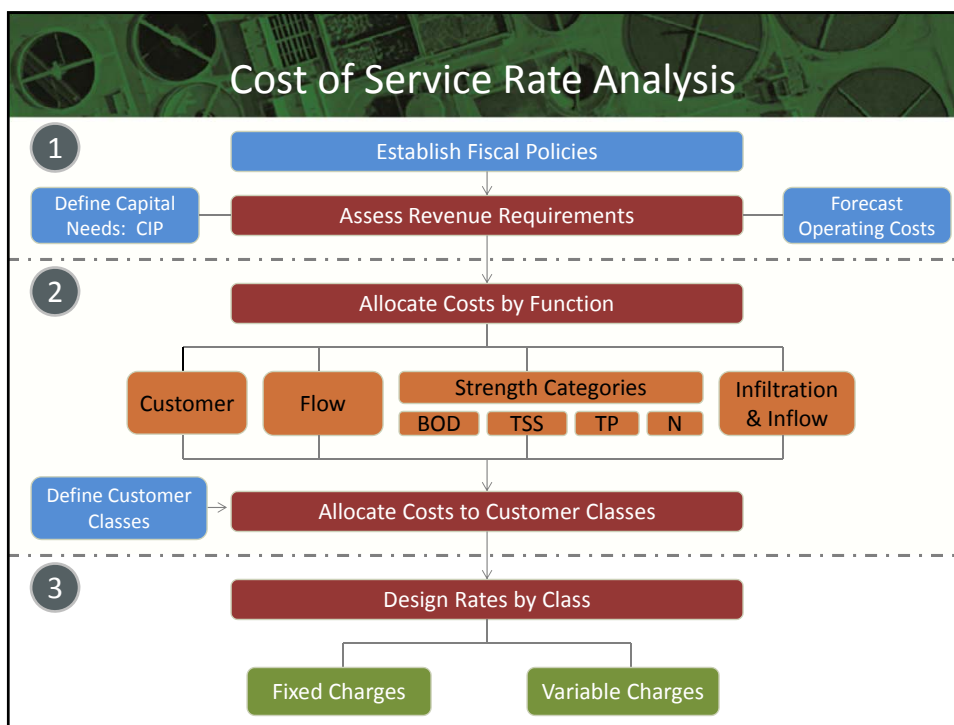
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	Environmental Information Documents	City Council Funding Decision										
2019									Phase II Rate Increase			





Overview of Cost of Service Methodology

John Ghilarducci, FCS Group

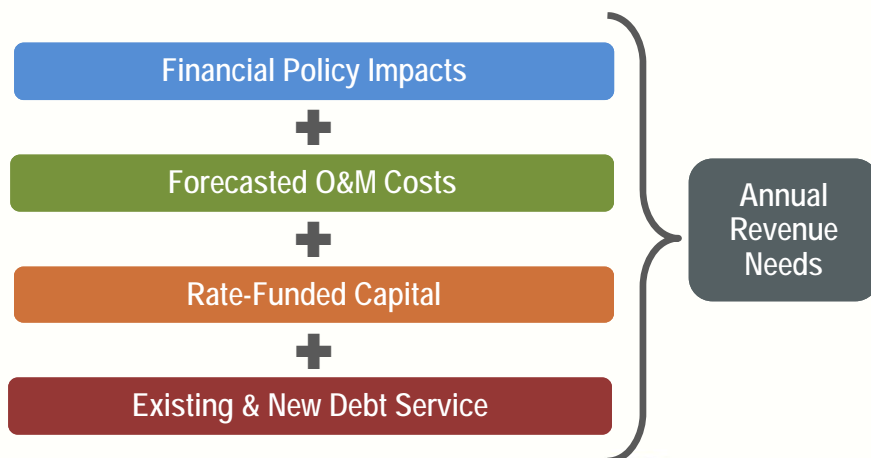



Overview of Revenue Requirement

- Determines the amount of annual revenue necessary to meet all utility financial obligations
- Evaluates sufficiency of current rates on a standalone basis
- Develops annual rate adjustment strategy
 - Multi-year financial plan




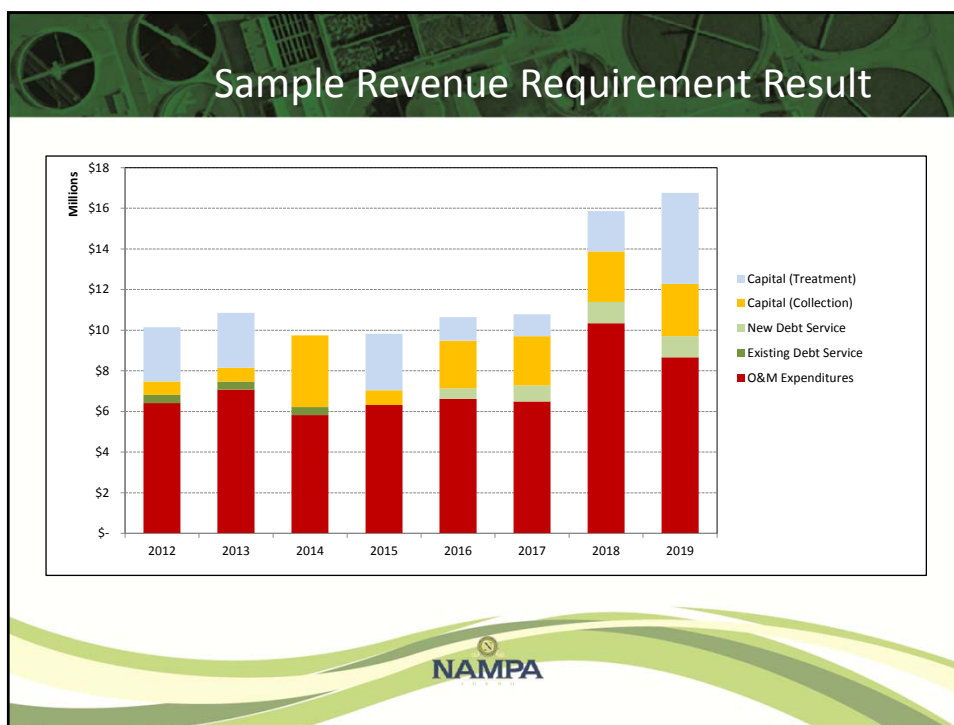
How Much Revenue is Needed?



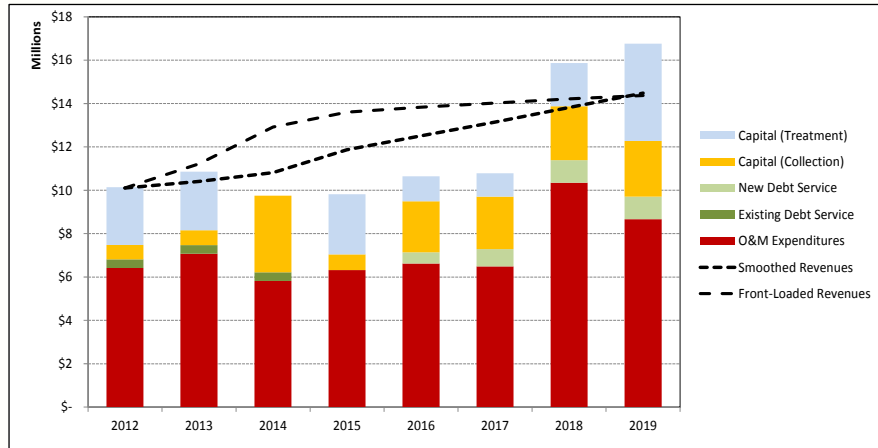
Two Key Cost Areas

Operations & Maintenance	Capital Infrastructure
<ul style="list-style-type: none"> Regular, ongoing activities Highly time/schedule sensitive More predictable spending patterns More predictable funding sources <p style="text-align: center; margin-top: 20px;">FY 2018: \$8.55 M</p>	<ul style="list-style-type: none"> Large, discrete projects Limited time/schedule sensitivity Less predictable spending patterns Less predictable funding sources <p style="text-align: center; margin-top: 20px;">FY 2018: \$5.7 M</p>





Sample Revenue Requirement Result



QUESTION:


Is there a preferred pattern for future rate increases (front-loaded v. smoothed)?

Role of Cost-of-Service Analysis

- Provides a rational basis for distributing the calculated “Revenue Requirement” to each customer class
 - Distributes utility costs among customer classes according to the unique demand each class places on the system
- An equitable distribution of cost shares that considers utility-specific data:
 - Measures of volume and demand (levels and patterns)
 - Planning, engineering, and design criteria
 - Facility requirements (pumping, treatment, etc.)
- End result
 - Total cost by class
 - Unit costs (\$ / customer, \$ / unit of usage)


Cost of Service Elements

- Define utility functions (service components)
 - Measures of use and demand
 - Planning and design criteria
- Allocate plant processes and expenses by function
 - Engineering data
 - Industry standard
- Define customer classes
 - Look for distinctions in demand and service
 - Define levels of demand by service component
- Allocate costs to customers
 - Determine cost by customer class
 - Develop unit costs




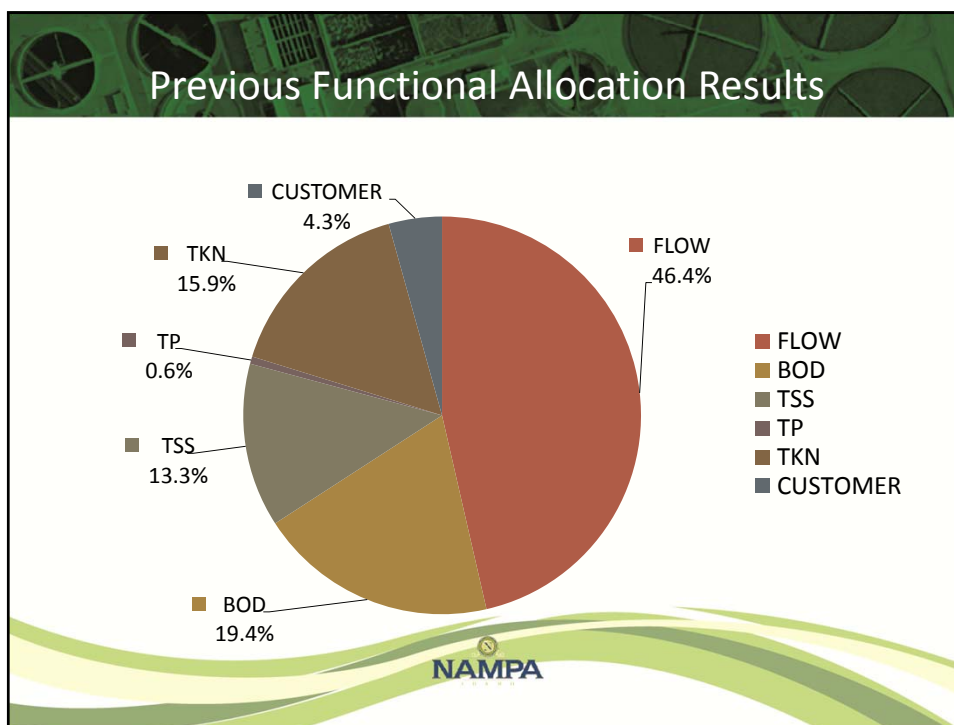
Current Rates

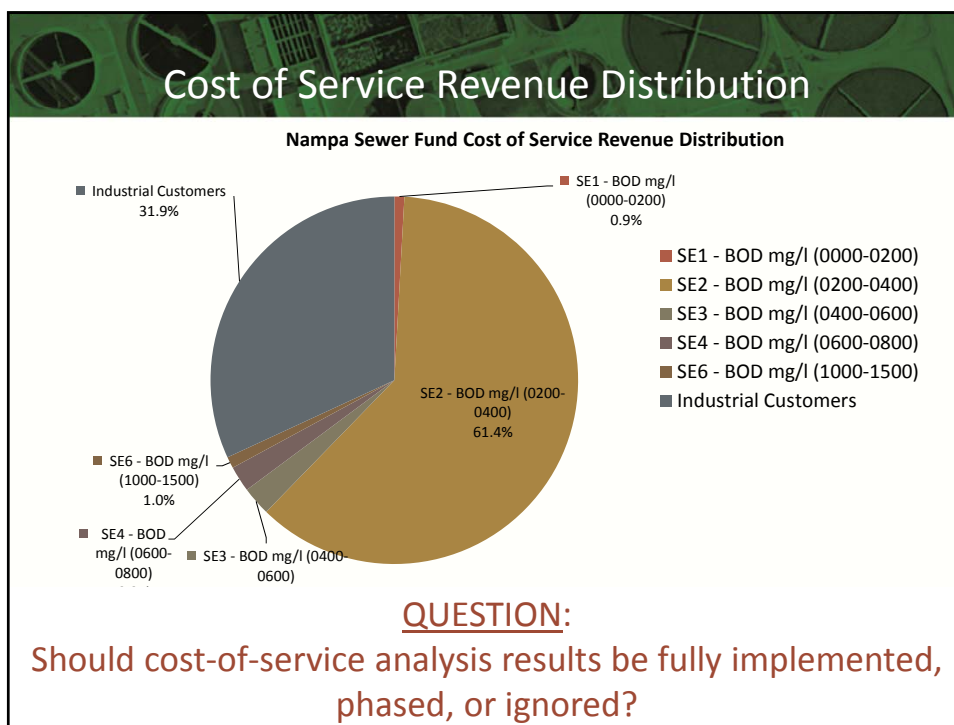
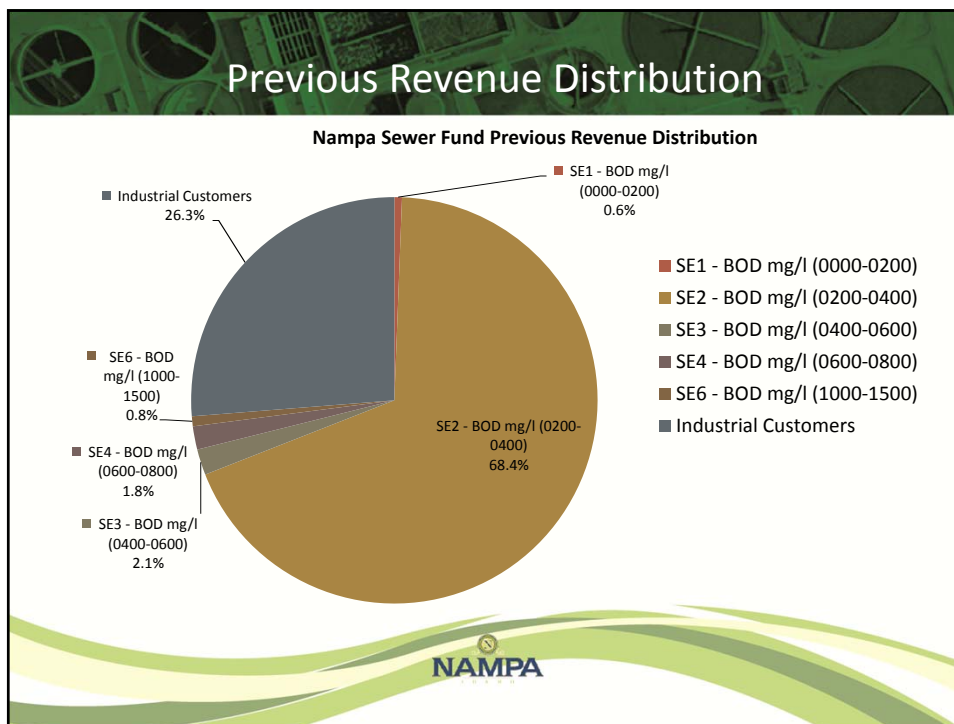
Non-Industrial Classes	Existing	Example Customer Types	# of Accounts
Bi-Monthly Base Rate (per account)	\$15.19		
Volume Rates (per ccf water use)			
SE1 - Strength mg/l (0000-0200) BOD	\$1.94	Laundromats & dry cleaners	30
SE2 - Strength mg/l (0200-0400) BOD	\$2.41	Residential & retail stores	26,233
SE3 - Strength mg/l (0400-0600) BOD	\$3.12	Schools & hospitals	173
SE4 - Strength mg/l (0600-0800) BOD	\$3.66	Sit-down restaurants	74
SE5 - Strength mg/l (0800-1000) BOD	\$4.52	None currently	0
SE6 - Strength mg/l (1000-1500) BOD	\$5.35	Drive-in restaurants	34
SE7 - Strength mg/l (1500-2000) BOD	\$6.48	Special permit	None



Current Rates

Industrial Customers	Existing
Flow (per million gallons)	\$2,374.99
BOD (per pound)	\$0.21
TSS (per pound)	\$0.17
TKN (per pound)	\$1.45
TP (per pound)	\$0.15



Rate Structure / Rate Design

Sample Criteria		Importance
Financial Sustainability	<ul style="list-style-type: none"> Sufficient and predictable revenue to recover costs Stable and predictable impacts to customers Adaptable to changing demands 	<input type="checkbox"/>
Conservation and Efficiency	<ul style="list-style-type: none"> Promote conservation and efficiency of use Protect natural resources 	<input type="checkbox"/>
Fairness and Equity	<ul style="list-style-type: none"> Correlation of rates with costs Reflect customer effluent patterns and service requirements 	<input type="checkbox"/>

QUESTION:

How would you value each of the criteria in importance to you?

Rate Comparison

Agency	Monthly Bill	Notes
Portland	\$ 68.74	\$9.82/ccf
Bend	\$ 59.89	
Meridian	\$ 37.66	
Eagle Sewer District	\$ 36.00	Flat fee
Coeur d'Alene	\$ 35.65	Flat fee
Boise	\$ 35.64	
Caldwell	\$ 33.26	
Pocatello	\$ 30.55	Flat fee
Nampa	\$ 24.47	
Idaho Falls	\$ 21.70	Flat fee



Next Steps

- Complete Rate Analysis
 - Revenue Requirement Analysis
 - Cost of Service Analysis
- Update Hookup Fee
- Update Capacity Optimization Fee
- Present results at NWAG #5





What's Next

Rosemary Curtin, RBCI



NWAG Assignments

- Groups
- Events
- Key community leaders
- Your involvement



What's Next

- Next meeting
 - NWAG Meeting #5: Nov. 28th
- Comment sheets
- Questions

THANK YOU!

