



## **City of Bellevue, Idaho**

### Wastewater Treatment System Workshop Worksheets

Date: \_\_\_\_\_

Facilitator: \_\_\_\_\_

Participants: Mayor, City Council, Public Works Director, City Engineer, Veolia Representative

## WORKSHEET 1: MBR SYSTEM OPTIONS

### Background Information:

- Veolia has confirmed that existing MBR membranes are no longer usable.
- The current membrane type is being phased out and will be unsupported by the manufacturer. (approximately 8-13 years)
- The City must decide between replacing with existing-type membranes (short-term fix) or upgrading to new membrane technology.

### Comparison Overview:

Criteria	Existing-Type Replacement	Upgraded System & New Membranes
Manufacturer Support	Phased out	Long-term supported
Energy Efficiency	Moderate	lower operating cost
Capacity Expansion	No increase now, but can add additional cassettes	No increase now, but can add additional cassettes
Reliability	Similar to prior performance	Improved operational reliability
Cost (initial)	Slightly lower	Slightly higher, but minor
Cost (lifecycle)	Higher (inefficiency + maintenance)	Lower (efficiency + durability)

### Discussion Questions:

- What are our short-term vs. long-term goals for the wastewater system?
- Are we prioritizing lowest upfront cost or greatest long-term value?
- What are the potential risks if we replace it with obsolete technology?
- Could system upgrades position Bellevue for future growth or regional service expansion?
- How can we ensure proper training and maintenance support for whichever system is selected?
- What are the environmental and regulatory implications of each option?

### Notes & Observations:

---

---

## WORKSHEET 2: INFRASTRUCTURE UPGRADES

### A. Headworks Channel Repair

- Current channel is aging and unreliable.
- Repair cost: Approximately \$40,000.
- Benefits: Improved flow management, reduced maintenance, better integration with MBR control system.

Questions for Consideration:

- Should the channel repair be included in the same project scope or handled separately?
- Are there potential cost savings by combining this work with the MBR upgrade project?
- What is the risk of delaying this repair another year?

### B. Dewatering System Installation

- Current system requires frequent sludge hauling.
- Dewatering system would reduce volume and cost of hauling.
- Could be installed as a stand-alone system or integrated with MBR upgrades.

Questions for Consideration:

- Are there potential cost savings by installing the dewatering system?
- Will the treatment facility operate as intended without a dewatering system?
- Should the dewatering System be included as part of a system upgrade or as a standalone project?

### C. RI Basin Rehabilitation

- Current RI basins needs to be modified due to interference with irrigation system and potential non-uniform flow (DEQ Inspection Letter).
- RI Basin Modifications may allow for increase in flow volume, and maximize available land near the treatment plant.
- Benefits: Improved treatment capacity, bring the system back into compliance with DEQ.

Questions for Consideration:

- Should the RI Basins be included as part of a system upgrade or as a standalone project?
- Are there potential cost savings by combining this work with the MBR upgrade project?
- What is the risk of delaying this project another year?

### C. Lagoon Dredging and Lining

- Due to the need to utilize potassium nitrate to increase oxidation to assist with treatment and odors the lagoon sludge blanket has likely increased and may need dredged.
- Seepage testing was not completed with the previous project and all lagoons need to be

tested in order for DEQ to give final approval..

- Dredging should be completed before seepage testing begins on all lagoons.

Questions for Consideration:

- Can the dredging be delayed another year (or longer)?
- Are there potential cost savings by combining this work with the MBR upgrade project?
- What is the risk of delaying this project another year?
- Are we required to line the third lagoon cell?

#### **Comparison Overview:**

Factor	Current Practice	With Dewatering
Hauling Frequency	Weekly/Biweekly	Monthly or less
Hauling Costs	High	Reduced by more than 50%
Staff Time	Significant	Reduced
Environmental Impact	Greater	Lower (reduced emissions/fuel use)

Questions for Consideration:

- What are the current annual hauling costs and expected savings with dewatering?
- Should this above items be installed/constructed immediately, or in a second project phase?
- What funding sources could be used (SRF, ARPA, DEQ grants)?
- Would adding dewatering capacity position the plant for regional or emergency use?

Notes & Observations:

---

---

## WORKSHEET 3: FISCAL & STRATEGIC CONSIDERATIONS

### Budget & Funding Discussion:

Project Component	Estimated Cost	Notes
MBR Membrane Replacement (existing type)	\$532,000 plus labor (\$10,000) and disposal	Short-term repair
MBR System Upgrade (new membranes + retrofits)	\$572,000 plus labor, material (\$80,000) and disposal	Long-term investment
Headworks Channel Repair	\$40,000	Can be completed concurrently
Dewatering System		Evaluate ROI vs hauling cost
RI Basin Rehabilitation		Long-term investment
Lagoon Dredging and Lining		Dredging is typical every 10-15 years; Seepage testing is required every 10
Engineering/Contingency		Required

### Questions for Consideration:

- What are the state and/or federal deadlines (DEQ) for compliance that could affect timing?
- What communication plan should we prepare for public understanding and transparency?
  - Can we get a letter from DEQ, which we could provide to the public, via website/newsletter, etc. detailing our compliance.
- How will this project support Bellevue's long-term sustainability goals?

**Decision Criteria Summary:**

- Restores compliance and reliability
- Minimizes long-term costs
- Increases capacity for growth
- Improves operational efficiency
- Supports environmental goals
- Aligns with funding opportunities
- Supported by manufacturer/OEM

**Council Member Notes/Comments:**

---

---

---

---

---

---

## NEXT STEPS & ASSIGNMENTS

Task	Responsible Party	Due Date	Notes
Obtain updated cost estimates from Veolia	Mayor/Engineer	_____	
Evaluate funding options and grant eligibility	Treasurer/Administrator	_____	
Develop phased implementation schedule	Public Works Director	_____	
Schedule follow-up work session or vote	Mayor/Council	_____	

Workshop Goal: To reach consensus on whether to:

1. Replace existing membranes (short-term fix), or
2. Upgrade to new technology and incorporate headworks and dewatering improvements for long-term performance.
3. Determine if RI Basin and Lagoon rehabilitation work should be included in the system upgrade.