



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.