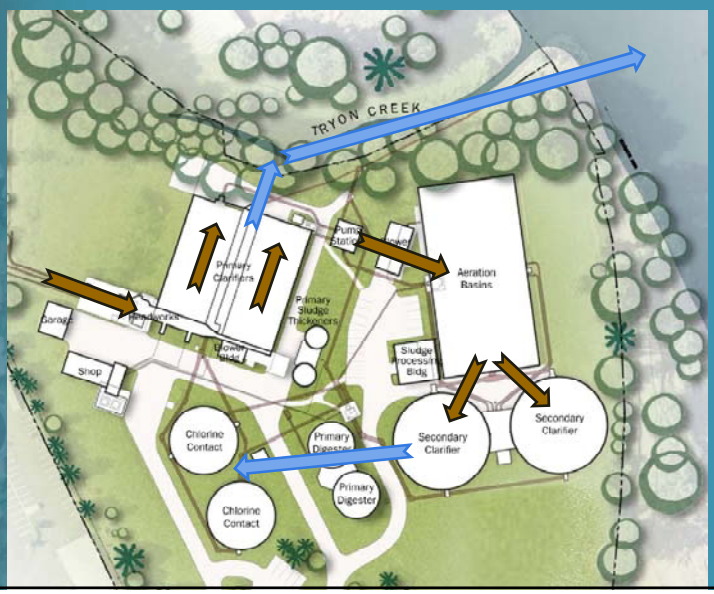
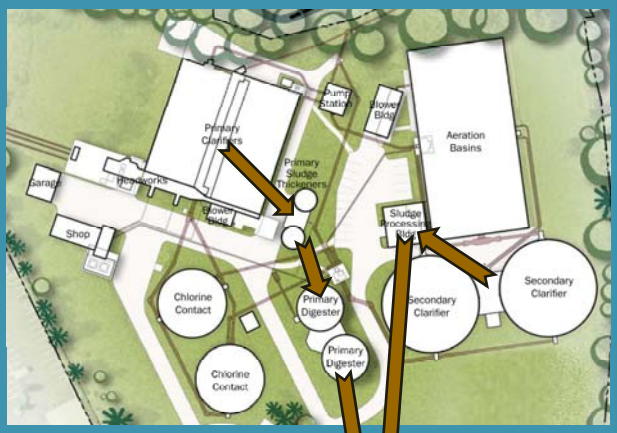
City of Portland
Bureau of Environmental Services
CAC Meeting #2 – June 13,2012
Tryon Creek
Wastewater Treatment Plant
Wastewater treatment
– a critical asset
CH2MHILL

Wastewater Treatment – A Critical Asset
Wastewater Treatment at TCWTP
Good Neighbor considerations
Resource Recovery Considerations

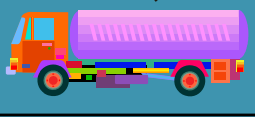
TCWTP – Liquids Treatment



TCWTP – Solids Treatment



To Columbia Blvd



Evolution of TCWTP

- Constructed in 1964
- Expanded in 1976
- Mechanical Upgrades 1990 – 1997
- Secondary Upgrades 2004
- Repair and Replacement 2004 - present

Good Neighbor Considerations

- Odor
- Noise
- Light/glare
- Landscaping

Good Neighbor Considerations: Odor

- Most significant odor sources include: headworks, solids processing, and primary clarifiers
- Odor Control Improvements identified in the 1999 Facility Plan and updated in 2007 Enhancement Plan

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Good Neighbor Considerations: Noise

- Noise is a function of:
  - intensity, frequency, and proximity
- 2007 Enhancement Plan - Noise Survey
  - Insignificant noise given current setting and neighbors
  - Remote operation minimizes noise during evenings and weekends
- May not be sufficient if development moves closer to the property line
- Enclosing facilities can help with odors and noise

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Good Neighbor Considerations: Light/Glare

- Lake Oswego plans to adopt an Outdoor Lighting Ordinance (first phase in 2008) to address:
  - Wasted Energy
  - Light Pollution
- All industrial facilities would be required to meet reduced night lighting Standards
- Exemptions for worker safety, OSHA requirements, etc.
- Lighting around TCWTP is presently minimal (remote operation)
- Street lighting is also minimal. Should provide full cut off luminaries.

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Good Neighbor Considerations: Landscaping and Views

- Plant is well-landscaped and maintained
- Existing landscaping accents adjacent park use

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Good Neighbor Considerations: Landscaping and Views

- 2007 Enhancement Plan evaluated views and landscaping needs
- Views from industrial properties and views from above are not screened
- Elevated photos from fire truck – 60 ft and 90 ft

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Resource Recovery Considerations

- Nutrients
- Energy
- Water

Resource Recovery Considerations

- Energy Minimization
  - DO (Blowers, Control)
  - Pumping (VFDs, Hydraulics)
  - Sidestream Treatment
  - Biosolids Hauling
- Energy Production
  - Combined Heat and Power
  - Effluent Heat Recovery
  - Biosolids to Energy
  - FOG Diversion
- Sellable Resources
  - Slow-release Fertilizer
  - Energy
  - Water Reuse
  - Ash Reuse
  - Heat to adjacent communities/industries
- Carbon Footprint
  - Energy Minimization
  - Biosolids Hauling
  - Fertilizer Offset
  - Renewable Energy Production

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QUESTIONS?

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