Vulnerabilities

**BITP STRUCTURES AT RISK**
- **Utilidor**
  - Electrical equipment and piping
- **Headworks**
  - Influent pumps, back-up generator, and motor control centers
- **Effluent Pumping**
  - Pumps and electrical
- **Substations**
  - LOTT substations and PSE substation
- **COMBINED STORM/SEWER SYSTEM**
  - 351 acres and 200 catch basins
  - Increased peak flows to BITP from combined system

Next Steps and Goals

- Complete joint Sea Level Rise Response Plan to protect entire BITP through broader downtown effort
- Complete a detailed vulnerability assessment of plant electrical systems
- Coordinate with PSE to ensure protection of Thurston Ave substation
- Develop design standards for future projects to minimize vulnerabilities
- Better understand risk of increased peak flows from combined storm/sewer system
- Identify potential actions to protect plant from both overland flooding and the combined system

Actions to Date

**COMPLETED 2014 VULNERABILITY ASSESSMENT FOR BITP**

**ADDRESS SEA LEVEL RISE RISK PROJECT BY PROJECT**
- **LOTT Regional Services Center (2010)**
  - Raised elevation by 1 foot
- **Primary Sedimentation Basins (2014)**
  - New electrical substation constructed 1.5 feet higher than usual
- **Service Entry Switchgear (2016)**
  - Watertight conduit
  - Watertight enclosures
  - Raised base elevation by 1.5 feet

**BEFORE**

![Before Image](image1)

**AFTER**

![After Image](image2)