

## CITY OF CASCADE LOCKS, OREGON

CITY COUNCIL MEETING, FEBRUARY 25, 2013

### WASTEWATER FACILITIES ENGINEERING EVALUATION REPORT

Outlined hereafter is a brief update concerning the City's wastewater facilities engineering evaluation report. At this time, we have received the background data from the City and have begun initial analysis of the data to establish the baseline for the evaluation report. Presented hereafter is a brief update for your information.

1. **Summary of Scope of Services For Evaluation Report** – The Scope of services is separated into two phases, each summarized as follows (see enclosed written Scope of Services):
  - **Phase I – Engineering Evaluation (This Study, Crafted to meet Conditions of DEQ Mutual Agreement and Order)** – This study is an evaluation report to complete a high level review of the overall wastewater system while specifically focusing on treatment plant operation. This evaluation will help focus your future wastewater system planning and improvements efforts. This study will also provide a summary of identified deficiencies at the treatment plant so the City can prioritize treatment plant needs, estimated costs, etc. The report is to also evaluate if the Cascade Locks treatment plant can potentially receive liquid sludge from surrounding communities for treatment/disposal.
  - **Phase II – Future Planning Work (if you elect to proceed)** – The City is currently eligible for considerable grants which can help pay for additional evaluations in your specific areas of need (discussed later herein).
  
2. **Baseline Wastewater System Data Discussion**
  - Figure 2, historic total monthly effluent flows, 2008 through 2012
  - Figure 3, historic total monthly effluent flows, minimum, average, maximum, 2008 through 2012
  - Figure 4, historic influent and effluent Carbonaceous Biological Oxygen Demand (CBOD), 2008 through 2012
  - Figure 5, historic influent and effluent Total Suspended Solids (TSS), 2008 through 2012
  
3. **Preliminary Thoughts**
  - Background data and what it suggests thus far
    - No recent problems with the treatment plant with meeting discharge permit limits. This does not necessarily mean no plant improvements are needed.
    - Fairly significant infiltration and inflow (I/I) appears to be occurring (high winter/spring flows)
    - High I/I is usually an indicator of collection system challenges, leaking pipe joints and/or manholes, inflow from illegal connections, etc.

#### **4. Schedule for this Study**

- Initial schedule was to have the study completed by the end of March 2013, assuming the work started in November 2012
- The work didn't start until mid January, 2013, so we currently hope to finish a draft of the study by the end of May 2013. Due to the late start this may be a challenge but we will strive to meet this deadline.
- This schedule will hopefully allow you the flexibility to potentially apply for block grant funds (discussed next) should you elect to do so..

#### **5. Future Phases of Study, Funding Opportunities**

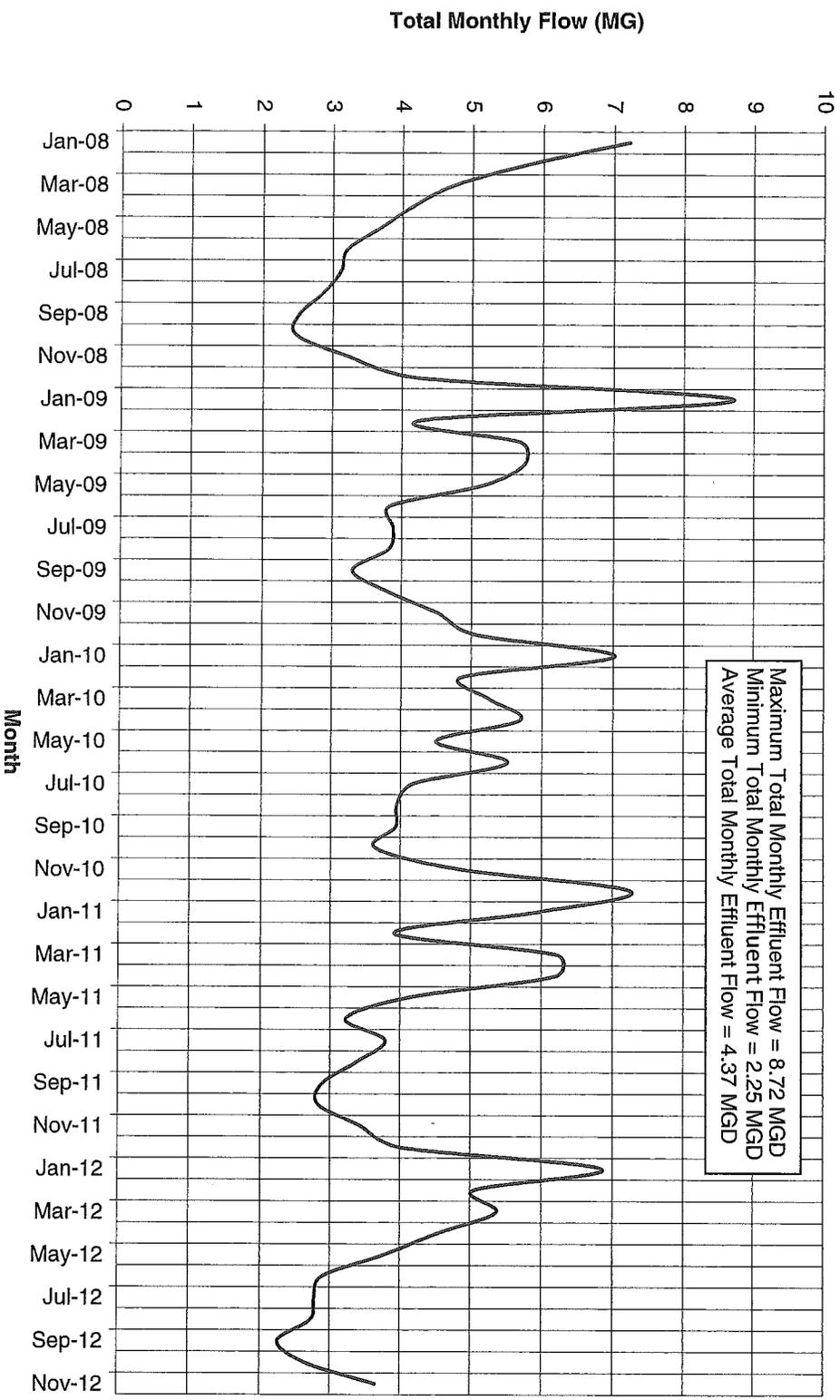
- Community Development Block Grant (CDBG) eligibility and what that means to Cascade Locks. CDGB can grant up to \$150,000 for studies with no sewer rate increase requirement.
- It appears your collection system needs further evaluation due to high I/I (Phase II Work). This could include cleaning, TV inspection, and analysis of your sewer system pipes and manholes. If you can secure a CDBG grant and choose to do so, the future study (Wastewater Facilities Plan) could potentially be completely paid for and would give the City a complete Wastewater Facilities Plan (makes you eligible for state and federal funding) providing the basis to proceed with all improvements, should you choose to do so.

#### **6. Preliminary Conclusions**

- Your treatment plant appears to have considerable capacity
- You are meeting discharge limits
- There are some operational challenges at the treatment plant
- Energy efficiency concerns exist at the treatment plant
- Your collection system appears to have significant I/I

#### **7. Questions**

**City of Cascade Locks, Oregon  
Historical Total Monthly Effluent Flow**



PRELIMINARY

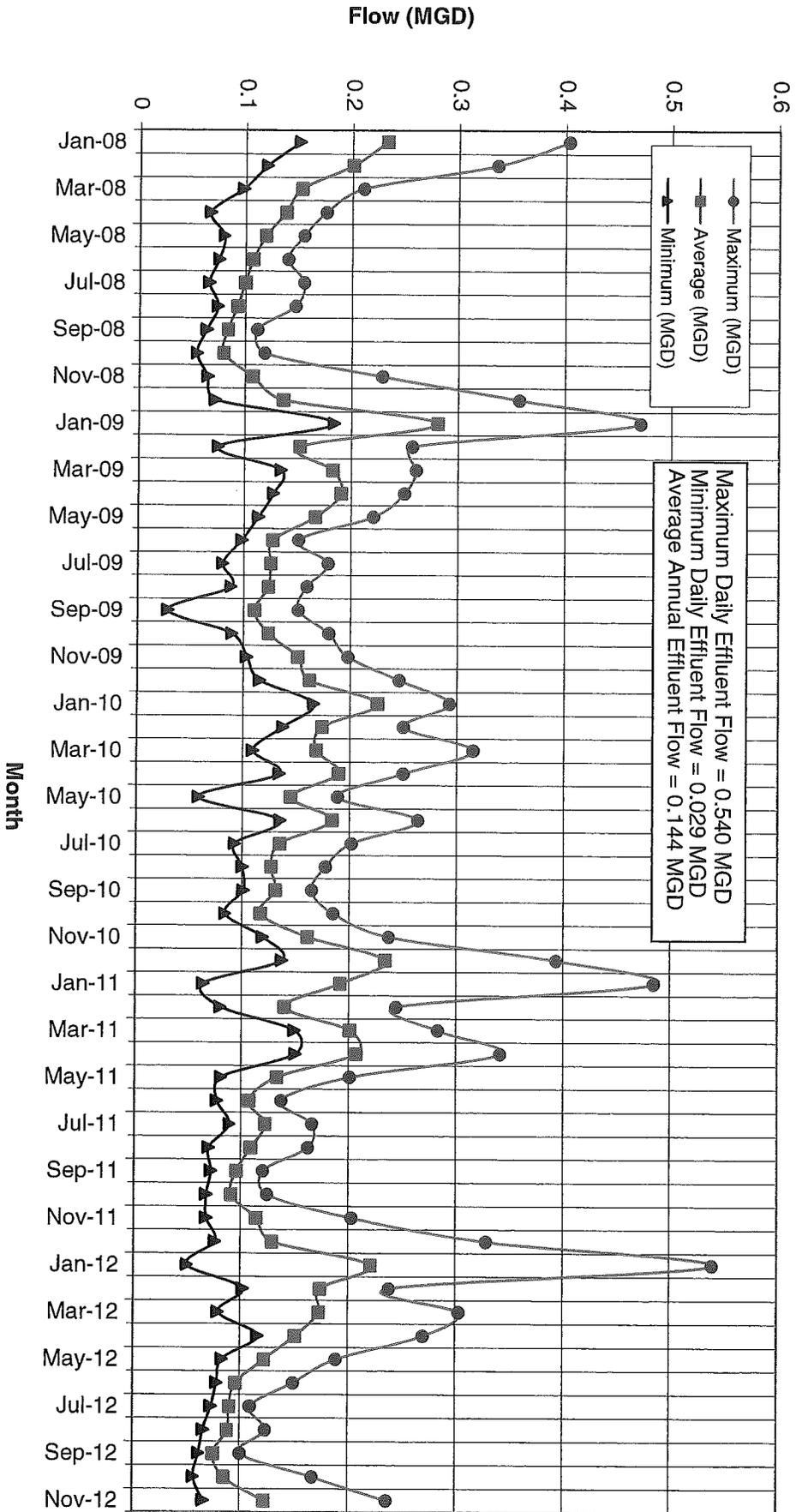


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**CASCADE LOCKS, OREGON**  
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**HISTORICAL TOTAL MONTHLY  
EFFLUENT FLOW**

**FIGURE  
2**

**City of Cascade Locks, Oregon  
Historical Effluent Flow**



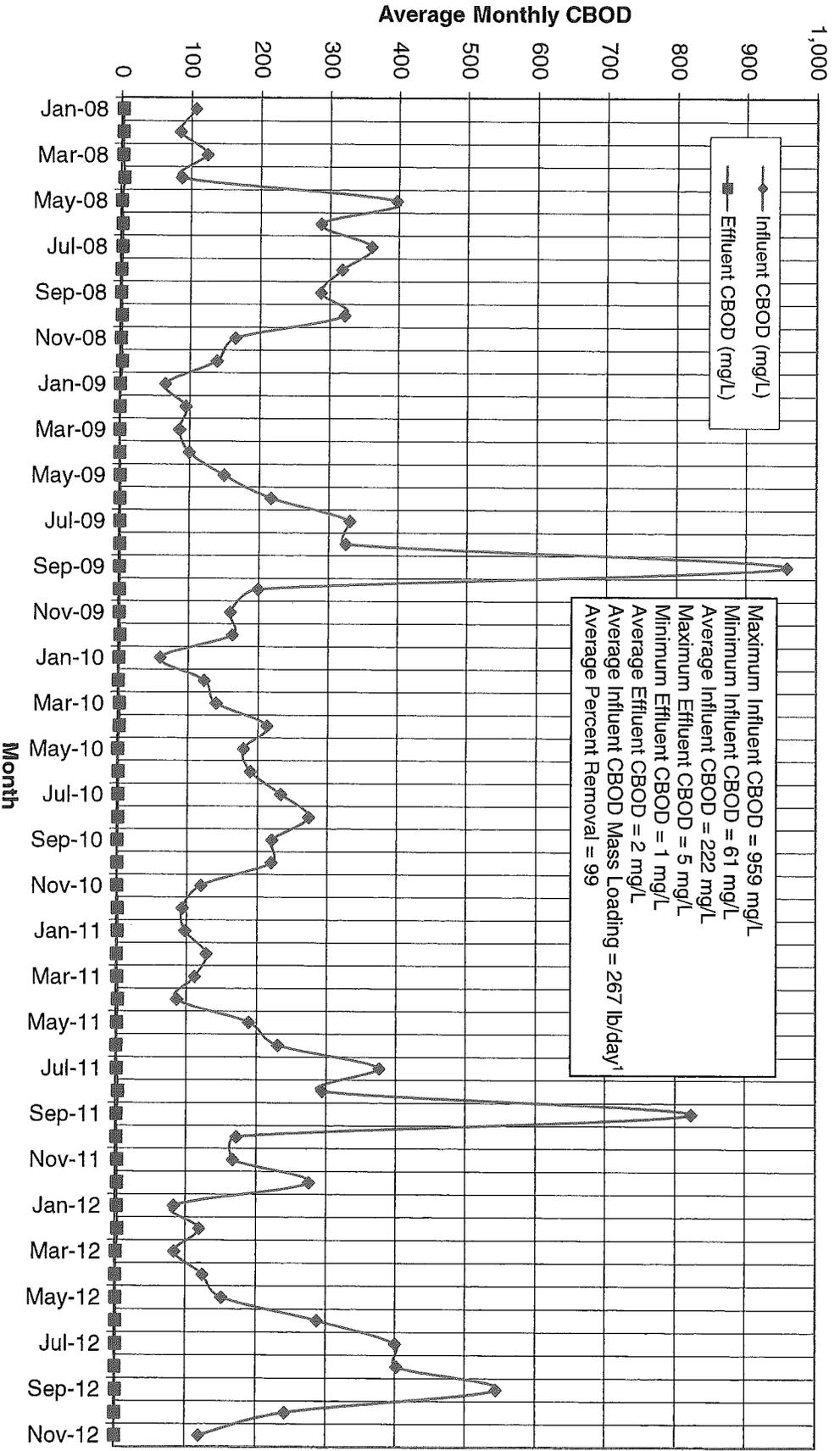
PRELIMINARY



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**HISTORICAL EFFLUENT FLOW**

**FIGURE  
3**

## City of Cascade Locks, Oregon Historical CBOD



<sup>1</sup> Calculated using average annual effluent flow.

PRELIMINARY

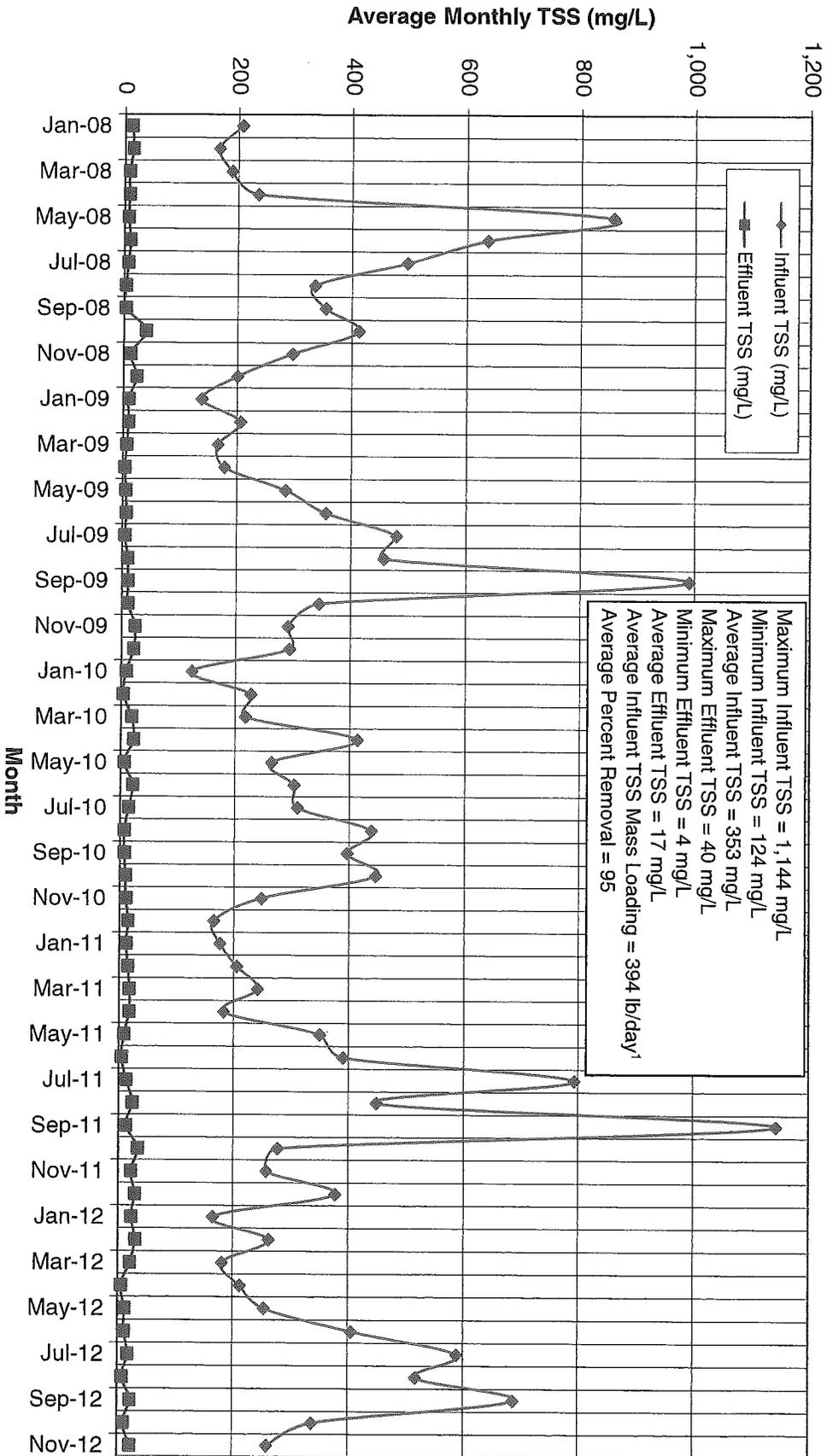


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HISTORICAL CBOD

**FIGURE**  
**4**

# City of Cascade Locks, Oregon Historical TSS



<sup>1</sup> Calculated using average annual effluent flow.

PRELIMINARY



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**HISTORICAL TSS**

**FIGURE 5**