

# LOCAL LIMITS REVIEWS VS LOCAL LIMITS RE-EVALUATIONS

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Steve Anderson  
Water Resources Analyst



# WHAT DO THE REGULATIONS TELL US TO DO ABOUT LL REVIEWS?



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**Look at your data!**



**What he said!**

**EPA**

**DEQ**



# CODE OF FEDERAL REGULATIONS

- 40 CFR 122.44(j)(2)(ii) states that POTWs must:
  - “Provide a written technical evaluation of the need to revise local limits under 40 CFR 403.5(c)(1), following permit issuance or reissuance.”
- In Oregon, DEQ includes this requirement in Schedule E (Pretreatment Activities) of NPDES permits:
  - “The permittee must perform a technical evaluation of the need to revise local limits within 18 months after permit issuance unless DEQ authorizes or requires, in writing, an alternate time frame.”



## EPA LOCAL LIMITS GUIDANCE MANUAL (2004)

- **Reviews** compare current headworks loadings with the Maximum Allowable Headworks Loadings (MAHLs)
- **Reviews** also examine any recent violations
- **Re-evaluations** are necessary for changed conditions not addressed in the periodic reviews, including plant conditions, regulatory changes, and changes in the industries that discharge to the POTW



# PERFORMING A REVIEW-EPA RECOMMENDATIONS

- If a POTW has had performance issues in the past, EPA recommends performing a review annually as part of preparation for its annual report
- Oregon DEQ has made this a standard part of annual reporting for all POTWs with Pretreatment Programs, regardless of whether or not there have been performance problems



## PERFORMING A REVIEW-EPA RECOMMENDATIONS (Continued)

- POTWs should calculate the maximum daily and maximum monthly average headworks loadings for each pollutant of concern (POC) for which it has calculated MAHLs
- Includes all POCs for which a MAHL has been calculated, even if a local limit was not adopted



## PERFORMING A REVIEW-EPA RECOMMENDATIONS (Continued)

- Calculate the percentage of the MAHL that is represented by the influent loadings observed in the previous year
- % of MAHL = 
$$\frac{\text{Observed Influent Loading}}{\text{MAHL}} \times 100\%$$
- This percentage of MAHL can be compared to the threshold that was used to determine whether a local limit was adopted (if a threshold was used in this decision)





## PERFORMING A REVIEW-EPA RECOMMENDATIONS (Continued)

- EPA guidance on using the % of MAHL to make decisions on revising existing local limits or establishing limits for new pollutants makes an assumption that a POTW used a specific threshold for establishing local limits, e.g.:
  - If the average loading for a toxic metal or organic pollutant exceeds 60% of the MAHL, a local limit should be developed
  - If the average loading for a conventional pollutant exceeds 80% of the MAHL, a local limit should be developed
- The assumption that a specific threshold was used is often not valid!



## PERFORMING A REVIEW-EPA RECOMMENDATIONS (Continued)

- Many POTWs (probably most POTWs in Oregon) develop local limits for POCs whose headworks loadings are a small fraction of the MAHL
- POTWs in OR commonly develop local limits for arsenic, cadmium, cyanide, and silver, even though influent loadings for these pollutants are usually < 10% of the MAHL
- Thus, POTWs in Oregon do **not** use a specific “percentage of MAHL” threshold to decide to develop a local limit
- This makes EPA guidance somewhat less than useful



## PERFORMING A REVIEW-EPA RECOMMENDATIONS (Continued)

- One part of EPA guidance that does not rely on a threshold value is the case where the current POC headworks loading exceeds the MAHL
- When the loading exceeds the MAHL, EPA recommends:
  - Establishing (or revising) a local limit
  - Investigate the cause of elevated loading
  - Increase IU monitoring
  - Identify noncomplying industries
  - Consider implementing pollution prevention efforts



## PERFORMING A REVIEW-EPA RECOMMENDATIONS (Continued)

- If a POC influent loading approaches the MAHL:
  - Investigate to determine whether the loading is an unusual, one-time occurrence with a known cause
  - Compare current IU loadings with Maximum Allowable Industrial Loadings (MAILs)
    - ❖ If increased loadings **not** coming from regulated IUs, they may be due to increased domestic/commercial sources
  - Review the data used to set the local limits in the first place
    - ❖ There have been changes that would alter local limits calculations
      - a fundamental change would be if removal efficiencies are different than they were when local limits were developed



# OREGON DEQ GUIDANCE FOR CONDUCTING REVIEWS

- Pretreatment annual report guidance instructs POTWs to compare the highest observed influent loading during the previous year to the MAHL
- If the highest influent loading meets or exceeds a threshold of 90% of the MAHL, the POTW must provide a detailed narrative discussing reasons for the high loading
- Oregon guidance also includes instructions for determining whether an exceedance of the MAHL caused a pass-through (violation of WQ standard)



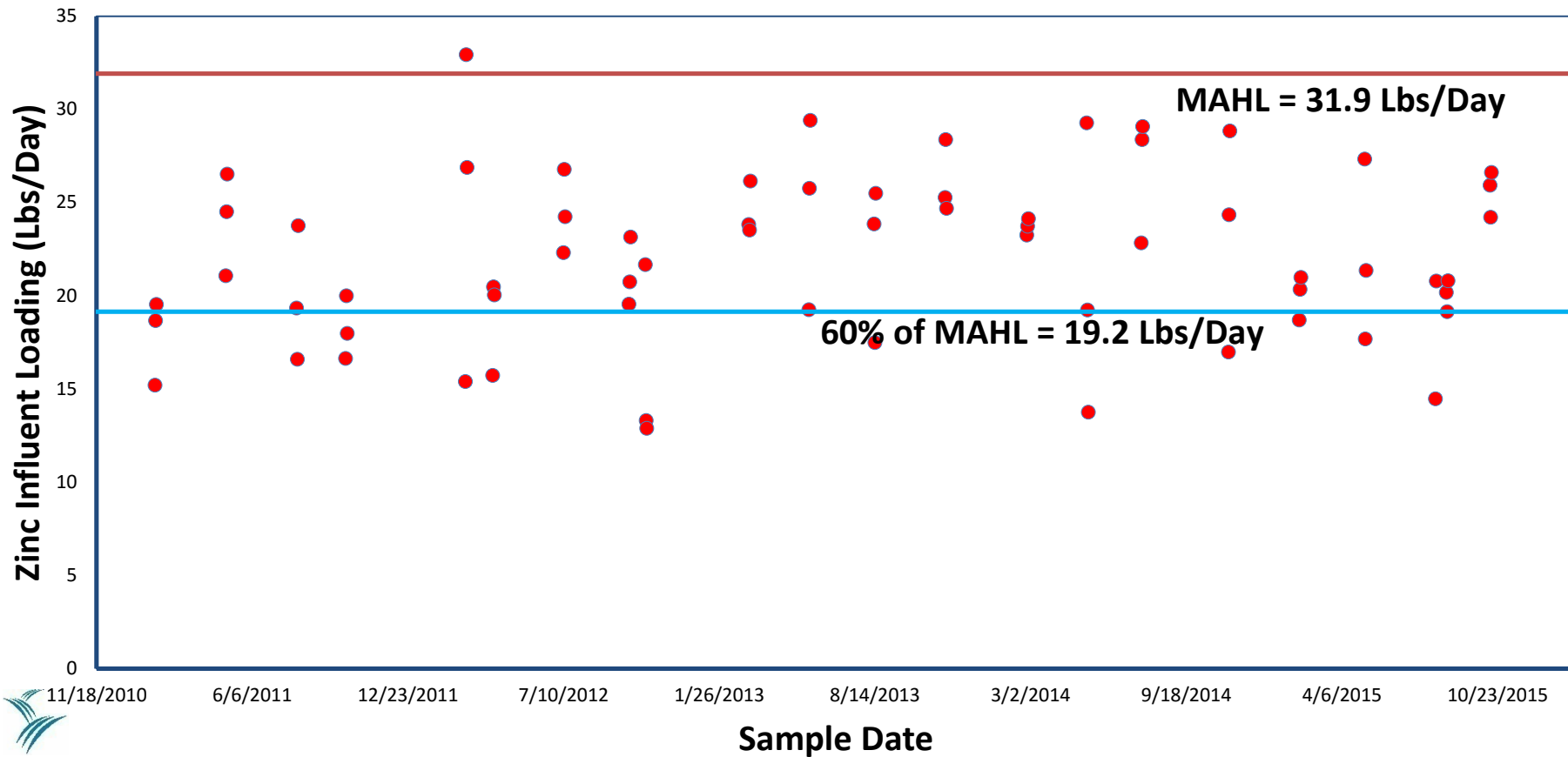
## A LOOK AT SOME REAL DATA

- Zinc influent loadings at the Rock Creek Plant
- Five years of data reported on annual reports
- The 60% of MAHL threshold was not adopted, either for the original local limits development, or for subsequent reviews



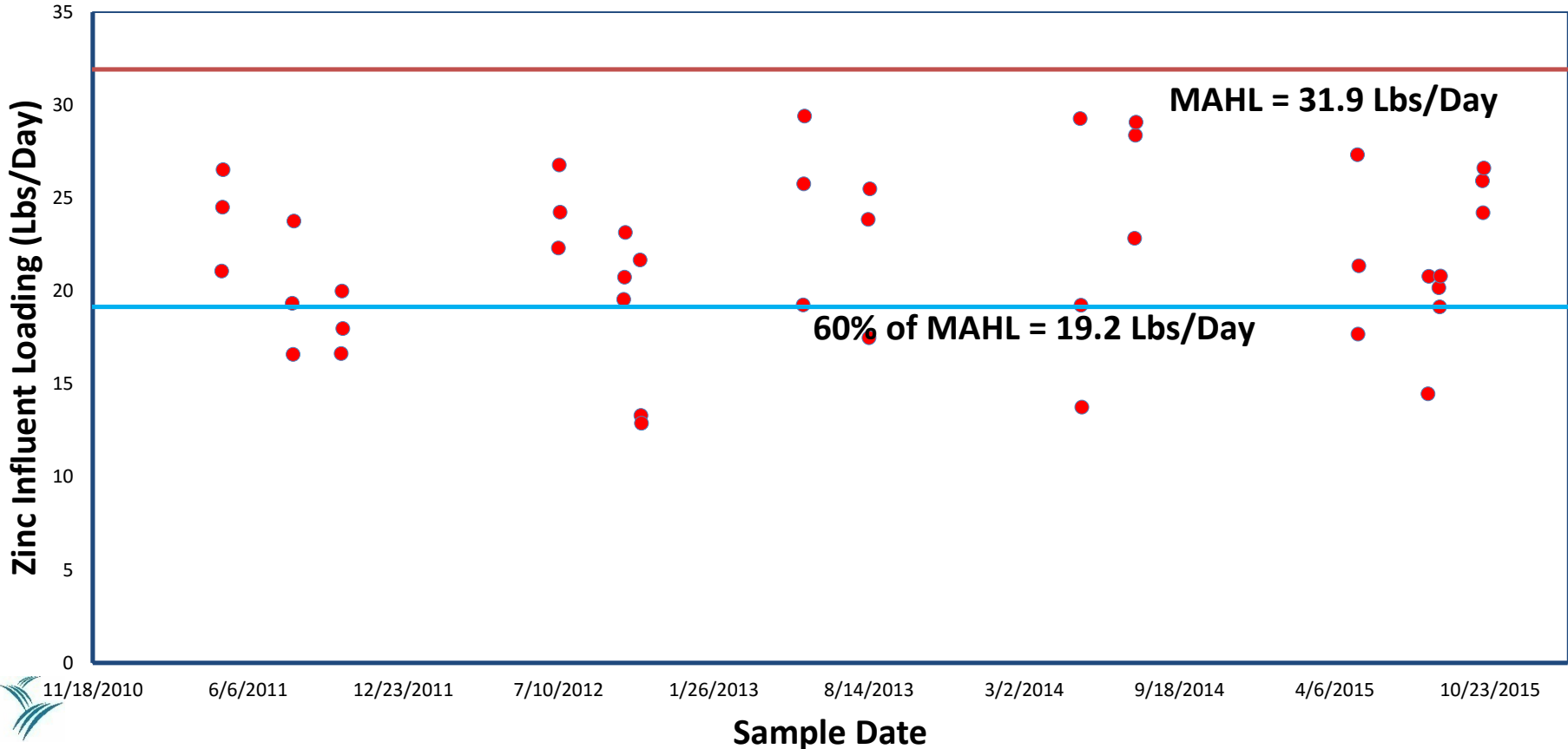
# Observed Daily Zinc Influent Loadings

Rock Creek Plant, 2011-2015



# Observed Daily Zinc Influent Loadings

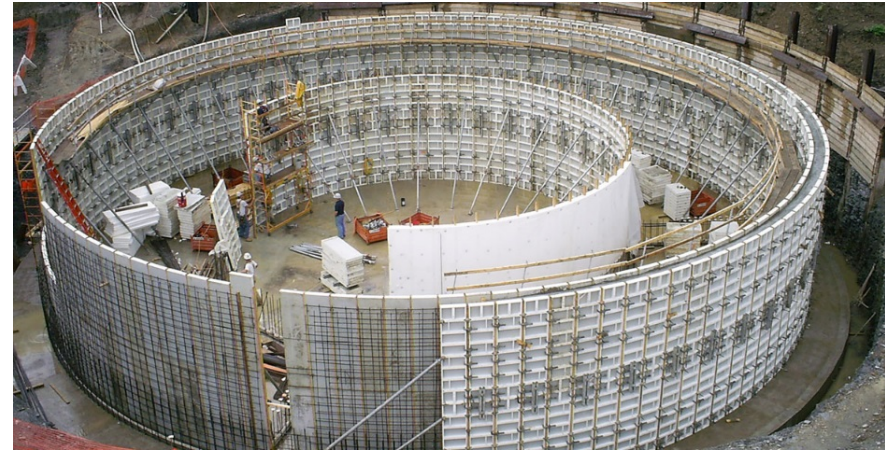
Rock Creek Plant, 2011-2015 (May-October)





# WHEN TO RECALCULATE LOCAL LIMITS

- Treatment plant has been modified
- Plant processes have been changed
- Significant change in flow
- New or revised NPDES limits
- Changes in state WQ standards



## WHEN TO RECALCULATE LOCAL LIMITS (Continued)

- Change in sludge disposal method
- Loadings affected by new IUs, changes in current IUs, or IUs that have stopped discharging
- New information about POTW or IUs that invalidate previous assumptions used in LL development



## WHEN TO RECALCULATE LOCAL LIMITS (Continued)

- If any of the conditions in the previous slides has changed, EPA guidance states that a detailed re-evaluation of local limits is generally appropriate
- DEQ Pretreatment Coordinator should be consulted when making this determination



## WHEN A POTW MIGHT NOT HAVE TO RECALCULATE LOCAL LIMITS

- If loadings have increased because of new IUs or increased discharges from current IUs, the POTW might be able to reallocate loadings that were allocated to the expansion/growth allowance when LLs were developed
- This is only feasible if the POTW dedicated part of its MAHL to keep in reserve for future growth
- Reallocating an existing MAHL is much simpler and less expensive than a full-blown local limits re-development!

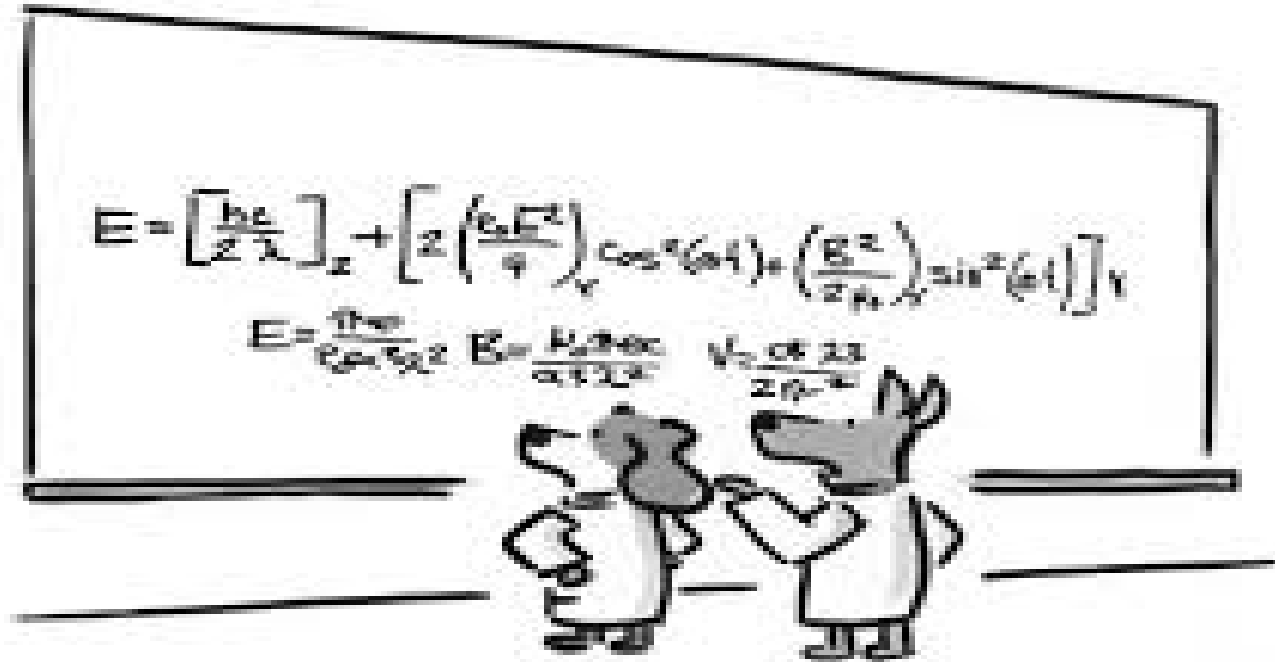


## WHEN A POTW MIGHT NOT HAVE TO RECALCULATE LOCAL LIMITS

- If the POTW has the data and information to show that **none** of the following have changed since the last time local limits were developed:
  - Removal efficiencies
  - Total or IU loading
  - Limiting criteria (NPDES permit limits, WQ standards, sludge disposal criteria)
  - Sludge characteristics or method of disposal
  - Background concentration of pollutants in receiving water



# HAPPY CALCULATING! QUESTIONS?



"There it is. You forgot to convert to dog years."

