Functional Equivalent Guidance

Water Quality Permitting and Program Development

December 10, 2025
NEBC conference, Portland Oregon

Disclaimer

- This presentation does not:
  - Impose any binding requirements
  - Determine obligations of the regulated community
  - Change or substitute for any statutory provision or regulatory requirement
  - Change or substitute for any agency policy or guidance
  - Control in any case conflict between this discussion and statute, regulation, policy, or guidance
- All permitting decisions by DEQ must meet legal requirements and are subject to public comment and EPA review.
- This presentation focuses on Oregon regulation and guidance. It may not be applicable to other states, which may have different regulations, policy, and guidance.

The Maui Decision (A Quick History)

- Lahaina WWRF in Maui
  - UIC permit, injects 3-5 MGD of treated wastewater to groundwater
  - Combined groundwater/wastewater entered the ocean
  - Environmental groups sued, claimed effluent was causing water quality issues
- 9th Circuit ruled for the environmental groups
  - Created the “fairly traceable” (i.e. above *de minimis* levels) standard
- Appealed to Supreme Court
  - 2020 ruling removed “fairly traceable” standard, instituted the “functional equivalent” standard
  - Majority opinion laid out 7 factors to consider

Photo Credit: Hawaii Travel With Kids Website: Best Things to do in Maui in May (2023)

The Seven Factors

1. Transit Time
2. Distance Traveled
3. Nature of the material through which the pollutant travels
4. Extent to which the pollutant is diluted or chemically changed as it travels
5. Amount of pollutant entering the navigable waters relative to the amount of pollutant that leaves the point source
6. Manner by or area in which the pollutant enters the navigable waters
7. Degree to which the pollution (at that point) has maintained its specific identity

The Maui Decision – Regulatory Challenge

Challenge: To determine a framework for consistent decision making to protect water quality and provide clear expectations to the regulated community

Maui Decision:

- Determined that “functional equivalent” discharges should be covered under an NPDES permit.
- 7 factors provided, but no clear methodology on how to get to the final determination
- Specifically states there is no “Brightline test”

Oregon Implementation:

- Ensure protection of surface water quality.
- Consistent decision-making process that incorporates existing state regulatory conditions
- When a WPCF (no direct surface water discharge) permitted facility has the potential to impact surface waters, evaluate for Functional Equivalency

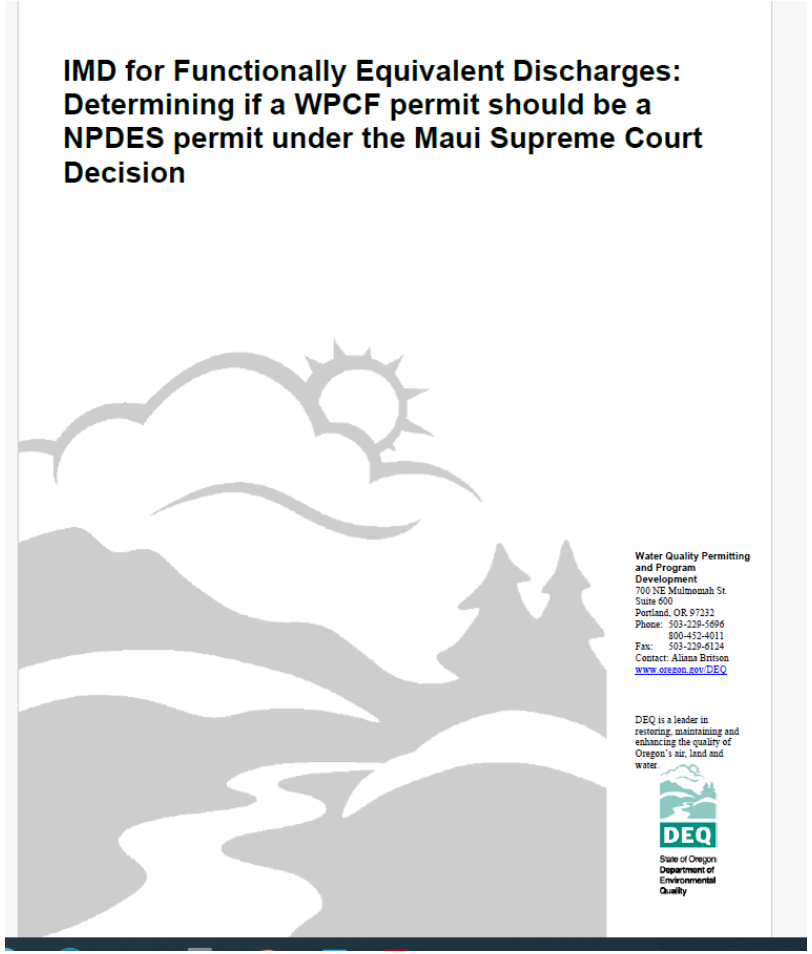
Guidance History

Date	Action	Issued By	Result
April 2020	Opinion: County of Maui v. Hawaii Wildlife Fund	Supreme Court	NPDES permit is required for releases of pollutants from a point source to a jurisdictional water through groundwater
January 2021	Federal guidance issued	EPA	
September 2021	Federal guidance rescinded	EPA	System Design and Performance criteria considered to be inconsistent with CWA and Maui Decision
November 2023	Draft Federal guidance put on public notice	EPA	70 comments, Not finalized
May 2024	Internal Management Directive issued	DEQ	Implementation of the functional equivalent directive to protect surface water in Oregon

Oregon DEQ's Functional Equivalent IMD

Goal: Provide a consistent process to determine if a WPCF permitted facility is a functional equivalent

- Written for DEQ staff
- Publicly posted for transparency
- Based on the text of the Maui Decision and subsequent relevant court cases
- Ongoing litigation on functional equivalent discharges and updated federal guidance may require future changes to implementation



Making a Functional Equivalent Determination

- Each factor is ranked based on available data and has a section in IMD that provides considerations
- Rankings are:
  1. Unable to Assess
  2. Unlikely Factor
  3. Ambiguous Factor
  4. Likely Factor

8. Appendix A: Functional Equivalent Worksheet

For each factor below document the known information. Once the data has been evaluated for each factor place a checkmark under the appropriate box (Unable to Assess, Unlikely Factor, Ambiguous Factor, or Likely Factor) using this IMD to help inform the decision.

Factor 1: Transit Time

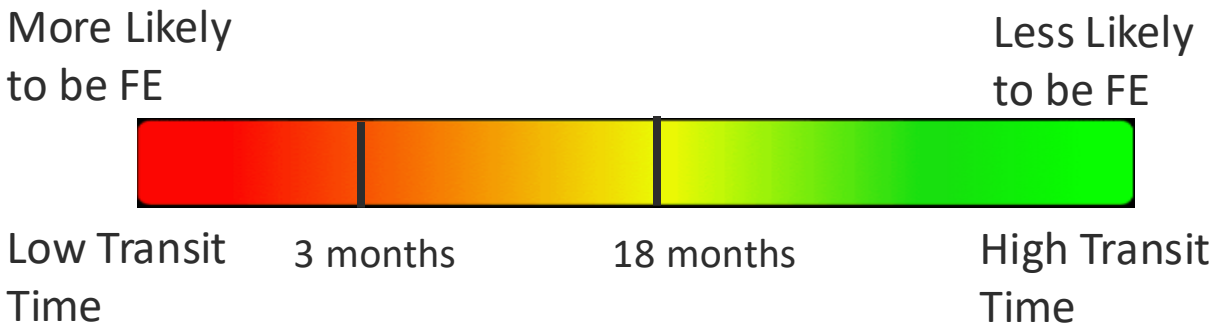
Information:			
Unable to Assess (no info)	Unlikely Factor	Ambiguous Factor	Likely Factor

Factor 2: Distance Traveled

Information:			
Unable to Assess (no info)	Unlikely Factor	Ambiguous Factor	Likely Factor

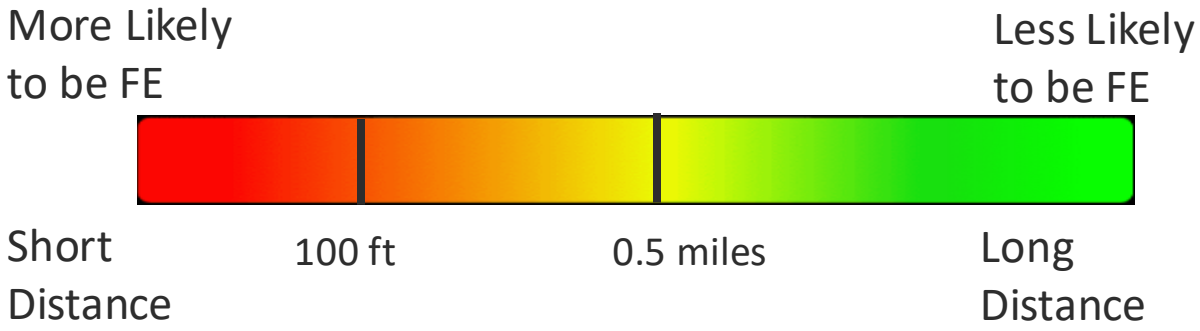
Ranking Considerations

Factor 1: Transit Time



- Benchmarks based on transit time of the Lahaina facility

Factor 2: Distance



- Benchmarks based on Lahaina Facility and High Mountain Mining Co. distances

Ranking Considerations

Factor 3: Nature of the material through which the pollutant travels

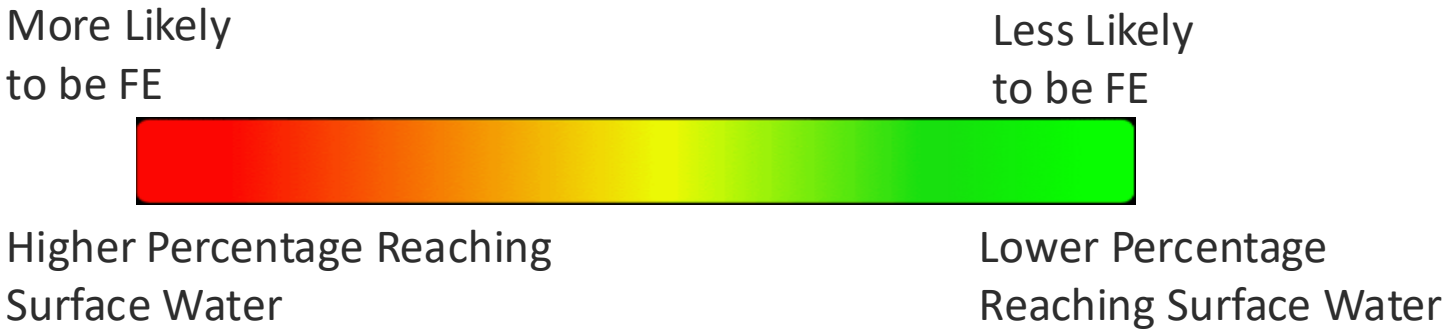
- Soil or bedrock characteristics, such as density and porosity, largely effects transit time
- Chemical profile of the material effects the final pollutant mix entering surface water

Factor 4: Extent the pollutant is diluted or chemically changes as it travels

- Analysis done for each individual pollutant

Ranking Considerations

Factor 5: Amount of pollutant entering the navigable waters relative to amount of pollutant leaving the point source

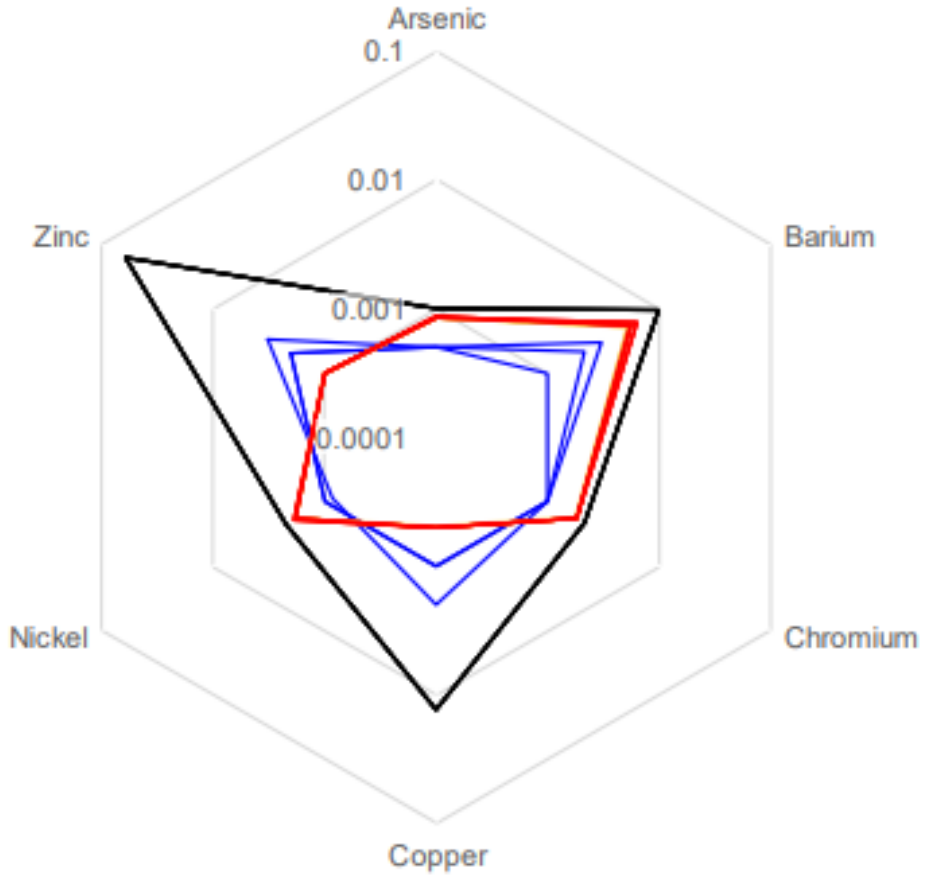


Factor 6: The manner by or area in which the pollutant enters the navigable water

Ranking Considerations

Factor 7: The degree to which the pollution has maintained a specific identity

- Looks at the pollution in aggregate
- The more similar it is to original discharge the more likely it is to be a FE



Making a Functional Equivalent Determination

Rankings are tallied to provide an overall ranking

- Appendix A provides a worksheet to help organize information and tally rankings
- All factors have equal weight when being tallied

The permitting pathway is determined by the ranking with the highest score

8. Appendix A: Functional Equivalent Worksheet

For each factor below document the known information. Once the data has been evaluated for each factor place a checkmark under the appropriate box (Unable to Assess, Unlikely Factor, Ambiguous Factor, or Likely Factor) using this IMD to help inform the decision.

Factor 1: Transit Time

Information:			
Unable to Assess (no info)	Unlikely Factor	Ambiguous Factor	Likely Factor

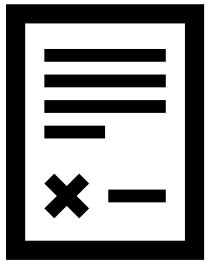
Factor 2: Distance Traveled

Information:			
Unable to Assess (no info)	Unlikely Factor	Ambiguous Factor	Likely Factor

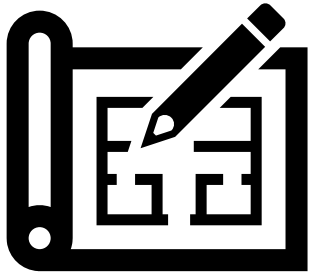
The Pathways

Ranking	Response	Caveat
Unable to Assess	Proceed with the pathway having the next highest score	
Unlikely Factor	DEQ renews as a WPCF permit	*If only one or two factors were able to be assessed, DEQ may request further studies in renewed WPCF permit*
Ambiguous Factor	DEQ renews as a WPCF permit	*DEQ requests further studies in renewed WPCF permit*
Likely Factor	DEQ determines most appropriate pathway for permitting and discuss with applicant/permittee.	*If score is 2 or less, follow pathway for "Ambiguous Factor"*

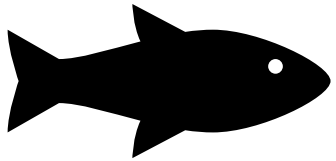
When is the FE IMD utilized?



When a WPCF facility's permit is being issued or renewed.



When a WPCF facility submits engineering designs.



Other situations as necessary

Permit writer or engineer uses IMD and consults with Functional Equivalent SME.

Questions?

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