



Division of Water Lingering Oil Listing Methodology Frequently Asked Questions

Improving and Protecting Alaska's Water Quality

1. What is Lingering Oil?

"Lingering oil is an oil residue deposited in shoreline sediment from an anthropogenic [from human activity] release that is generally not bioavailable [sequestered, under clean gravel] unless disturbed."

Lingering oil acts differently than other oils in three specific ways.

1. It has been in the environment a long time.
2. It is typically buried several inches under the sediment.
3. Unless it's disturbed, it generally doesn't interact with humans, fish, birds, or other animals.

Because of these differences, the existing listing methodologies are not appropriate for assessing lingering oil.



Example of lingering oil in beach sediments.
Photo from NOAA Shoreline Assessment Manual (2013)

2. What is a listing methodology?

A listing methodology is a formal procedure used to review data and determine whether a water body is impaired – that is, not safe for specific uses, such as recreation or food production or if it poses a threat to wildlife. DEC currently has five listing methodologies: pathogens, residues, turbidity, petroleum hydrocarbons, and a consolidated assessment. The methodologies provide guidance on data types, data minimums, and how to evaluate the data.

3. What does the draft listing methodology say?

The draft listing methodology gives the types of data that can be used to evaluate lingering oil. It specifies the preferred data type, quantity, quality, and age. It also provides the criteria to compare the data against to determine whether the water body is impaired or is meeting water quality standards (attaining).

In summary, four data types are preferred, listed in order of preference. Generally, at least 10 high-quality data points are needed per water body segment being assessed. However, exceptions are allowed under Overwhelming Evidence.

TEST PITS dug to see how much oil has penetrated deeper sediment. Depth and amount of oiling are used to compare to water quality standards.

SEDIMENT SAMPLES analyzed for polycyclic aromatic hydrocarbon concentrations. Results are compared to safe thresholds for humans and aquatic organisms.

BIOLOGICAL EVIDENCE evaluates impacts to wildlife by looking at tissue chemistry data, whether sediment is toxic to organisms, whether populations of organisms are low, or if an organism's diet uptakes pollutants. At least one of two of lines of evidence must show a negative difference compared to an unimpacted reference.

COMPUTER MODELING that predicts locations and probability of oil. The probability of oiling is used to compare to water quality standards.

OVERWHELMING EVIDENCE allows for multiple lines of evidence when only partial or inconclusive data is available for other tiers but as a whole, they may indicate if it meets water quality standards.





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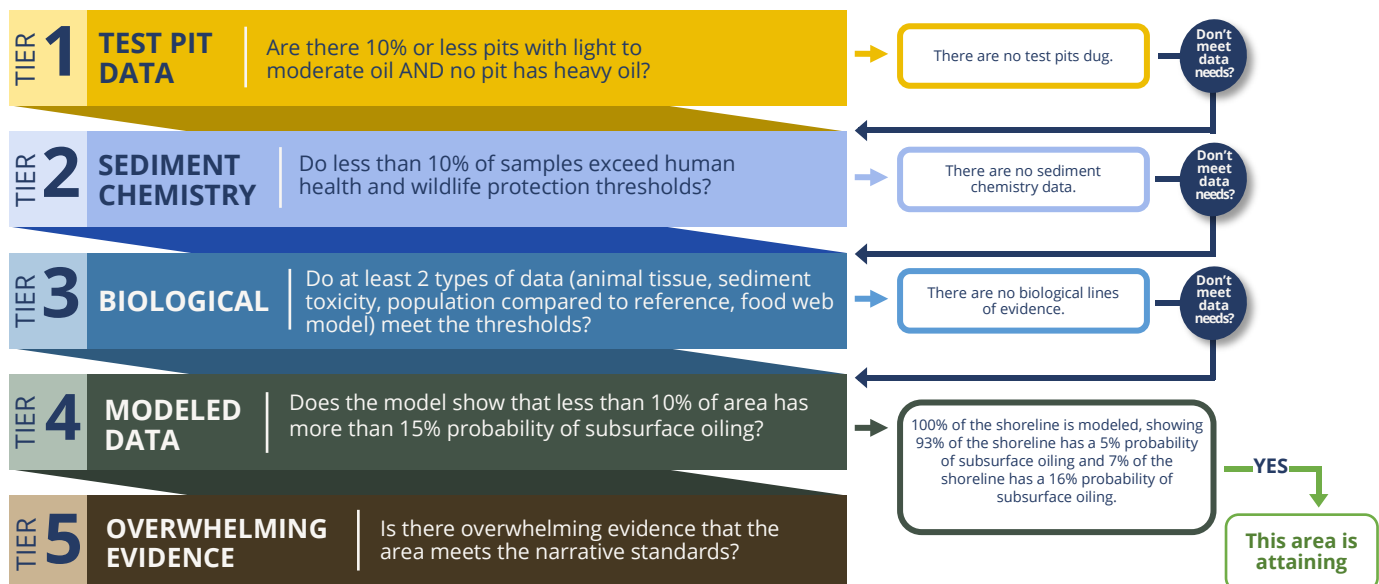
4. How is the Listing Methodology used?

Every two years, the Alaska DEC reviews readily available water quality data to determine if waterbodies are meeting water quality standards. The results are provided in an Integrated Report, which categorizes waterbody segments (assessment units) as either meeting Alaska's water quality standards (attaining) or not meeting the standards (impaired). The Integrated Report helps the State prioritize waterbodies for data gathering, watershed protection, and restoration of impaired waters.

For more information about the Integrated Report, visit <https://dec.alaska.gov/water/water-quality/integrated-report/>.

5. What is an example of using this listing methodology?

In order to use the best available data, multiple lines of evidence will be used. The lingering oil listing methodology uses data through a tiered hierarchy approach. The graphic below applies the approach to an example beach. If the data don't meet the needs of the tier, the next tier is considered.



6. Where can I find the lingering oil listing methodology?

You can learn more about lingering oil and the development of the listing methodology by visiting <https://dec.alaska.gov/water/water-quality/evos-lingering-oil/>.

7. Should I be concerned about subsistence use in these areas?

DEC currently has numerous Exxon Valdez Oil Spill (EVOS) impacted beaches listed as impaired for all uses, including subsistence. We are in the process of updating these designations through this EVOS Lingering Oil Listing Methodology. Numerous studies and recovery efforts have occurred over the years and a re-evaluation of the area is needed. More information can be found on the Exxon Valdez Trustee Council website: [Spill-Area and Subsistence Resources: How are they impacted by lingering oil? - Exxon Valdez Oil Spill Trustee Council](#).

8. Where can I report suspected lingering oil/sheening?

- Call the DEC Response Team office: +1-800-478-9300 or +1-907-269-0667
- Report Online: ReportSpills.alaska.gov

Scan the QR code for our EVOS Lingering Oil project website and progress updates!

