

### 3 DREDGED MATERIAL EVALUATION PROCESS

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The main questions that the DMMP evaluates are:

1. Is proposed dredged material suitable for open-water disposal? Open-water disposal can be at one of the designated DMMP sites or in some cases in flowlane disposal areas.
2. Is proposed dredged material suitable for in-water beneficial use? In general, material proposed for beneficial use needs to not only meet DMMP guidelines for open-water disposal, but must also meet Washington State Sediment Management Standards requirements as well. Fisheries agencies or landowners/managers may require more stringent comparisons, especially with in-water beneficial reuse or habitat creation projects.
3. Will the post-dredge surface meet Washington State anti-degradation standards when the project is finished? In other words, will the sediment surface left behind after dredging be degraded relative to the sediment surface that existed prior to dredging? This question is often the only applicable question for DMMP consideration if the proposed disposal site is upland with no return water.

To answer these questions, the DMMP uses a tiered approach to sediment characterization.

There are four tiers of evaluation:

**Tier 1: Site Evaluation and History**

**Tier 2: Chemical Testing**

**Tier 3: Biological Testing (bioassay and or bioaccumulation testing)**

**Tier 4: Special Studies**

Every project is subject to a Tier 1 evaluation, which is a review of historical and ongoing sources of contamination, land use, and any previously collected data (Chapter 4). Occasionally a suitability determination can be made using only Tier 1 information. For other projects, Tier 1 informs the characterization required in subsequent tiers. Tier 3 biological testing is invoked if chemicals of concern are present at concentrations that are of potential concern for human health or the environment. Time can be saved by compressing Tiers 2 and 3-- that is, by conducting concurrent chemical and biological testing. Tier 4 testing is rarely required by the agencies or pursued by dredging proponents. If Tier 4 testing is needed, it is specially designed in coordination with the DMMP agencies. **It is always the project proponent's decision whether to proceed to the next tier for further testing; the option of disposing of material upland rather than pursuing further testing is always available.**

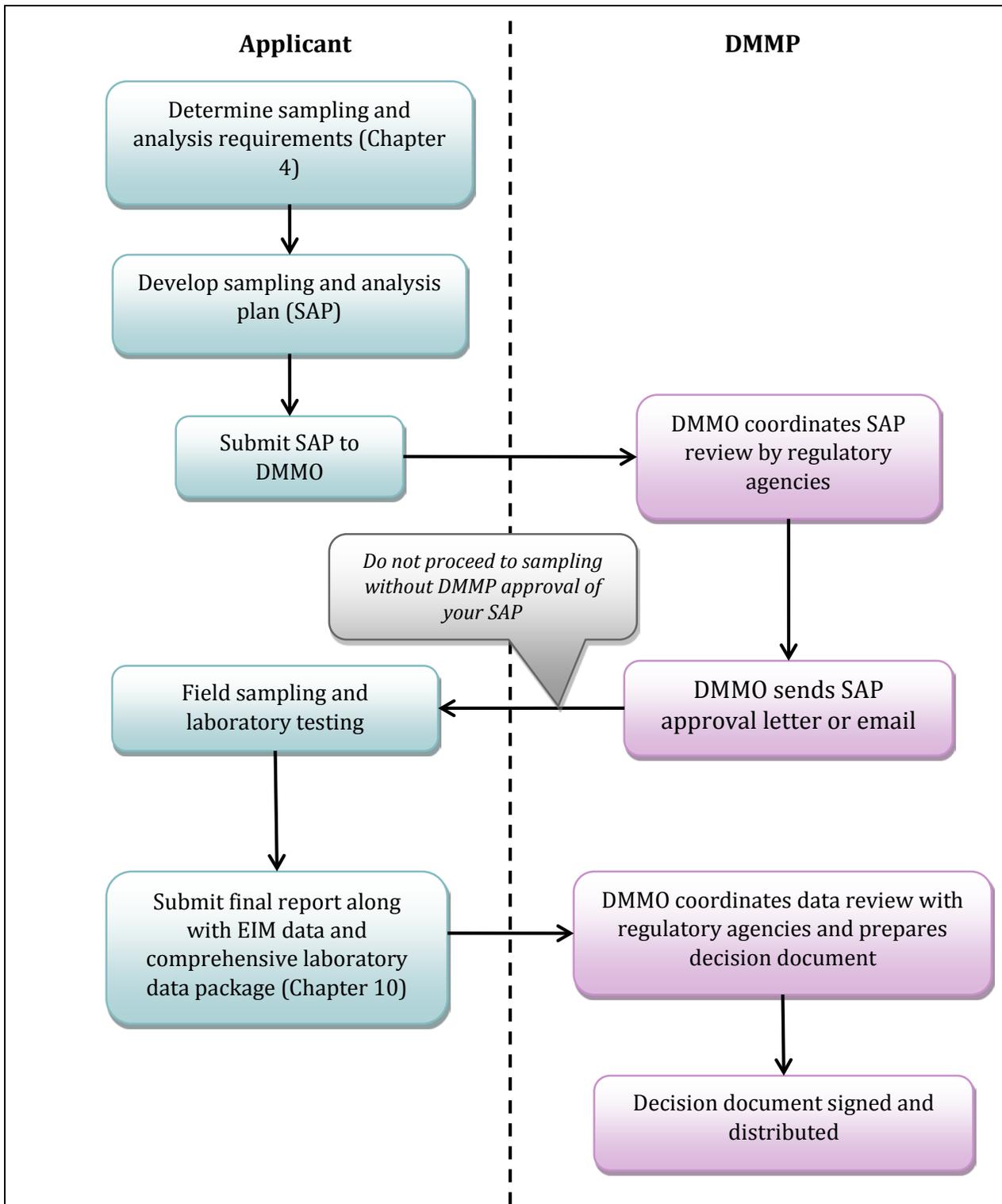
The dredged material evaluation process is required for every dredging cycle. In some cases this will be as simple as checking to see if an existing suitability determination covers the proposed dredging, as might be the case for frequent, routine maintenance dredging. In other cases, it will require Tier 2 and 3 testing. Regardless of the project, DMMP coordination needs to be conducted and a decision for that dredging cycle documented.

The dredged material evaluation process consists of the following steps (**Figure 3-1**):

1. Dredging proponent (with consultant assistance as needed) determines project-specific sampling and analysis requirements, as stipulated in this User Manual. DMMO may be contacted for assistance.

2. Dredging proponent develops a sampling and analysis plan (SAP) for sediment evaluation (Chapters 5 & 6).
3. Dredging proponent submits SAP to the DMMO.
4. DMMO coordinates review of the SAP by the other DMMP agencies. Proponent may be required to address concerns and re-submit the SAP if it does not meet DMMP requirements.
5. DMMO sends a SAP approval letter or email message to the dredging proponent.
6. A pre-sampling conference call between the DMMP and sampling team may be scheduled prior to the beginning of sampling.
7. Dredging proponent conducts field sampling and laboratory testing.
8. Dredging proponent submits a final sediment characterization report to the DMMO for distribution to all DMMP agencies.
9. DMMO coordinates review of the testing data with the DMMP agencies.
10. DMMO drafts and the agencies review and sign a suitability determination for disposal.

**Figure 3-2** and **Figure 3-3** summarize the tiered approach for marine and freshwater sediments, respectively.



**Figure 3-1. Dredged Material Evaluation Process**

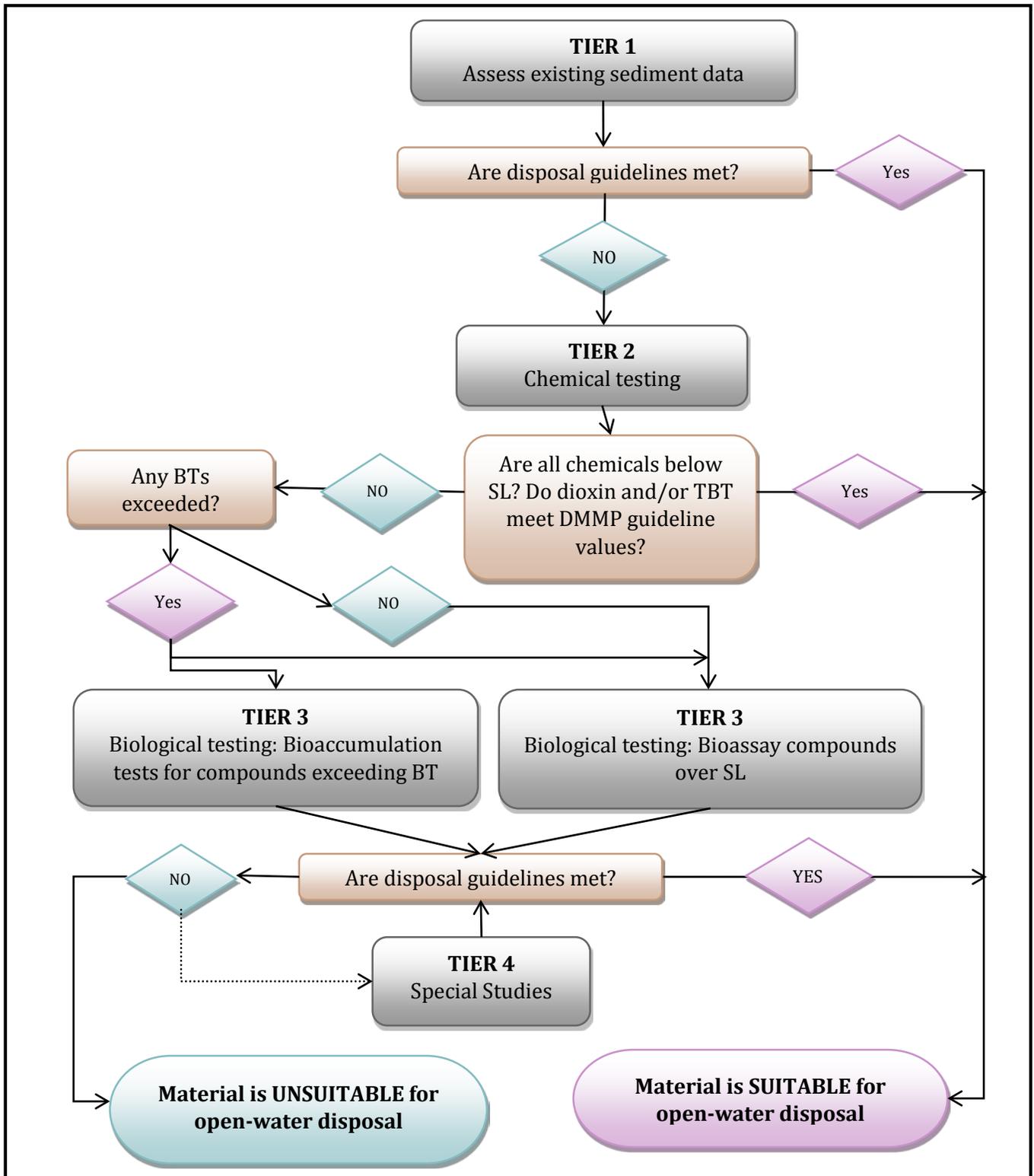


Figure 3-2. Tiered Testing Decision Diagram for Marine Sediment

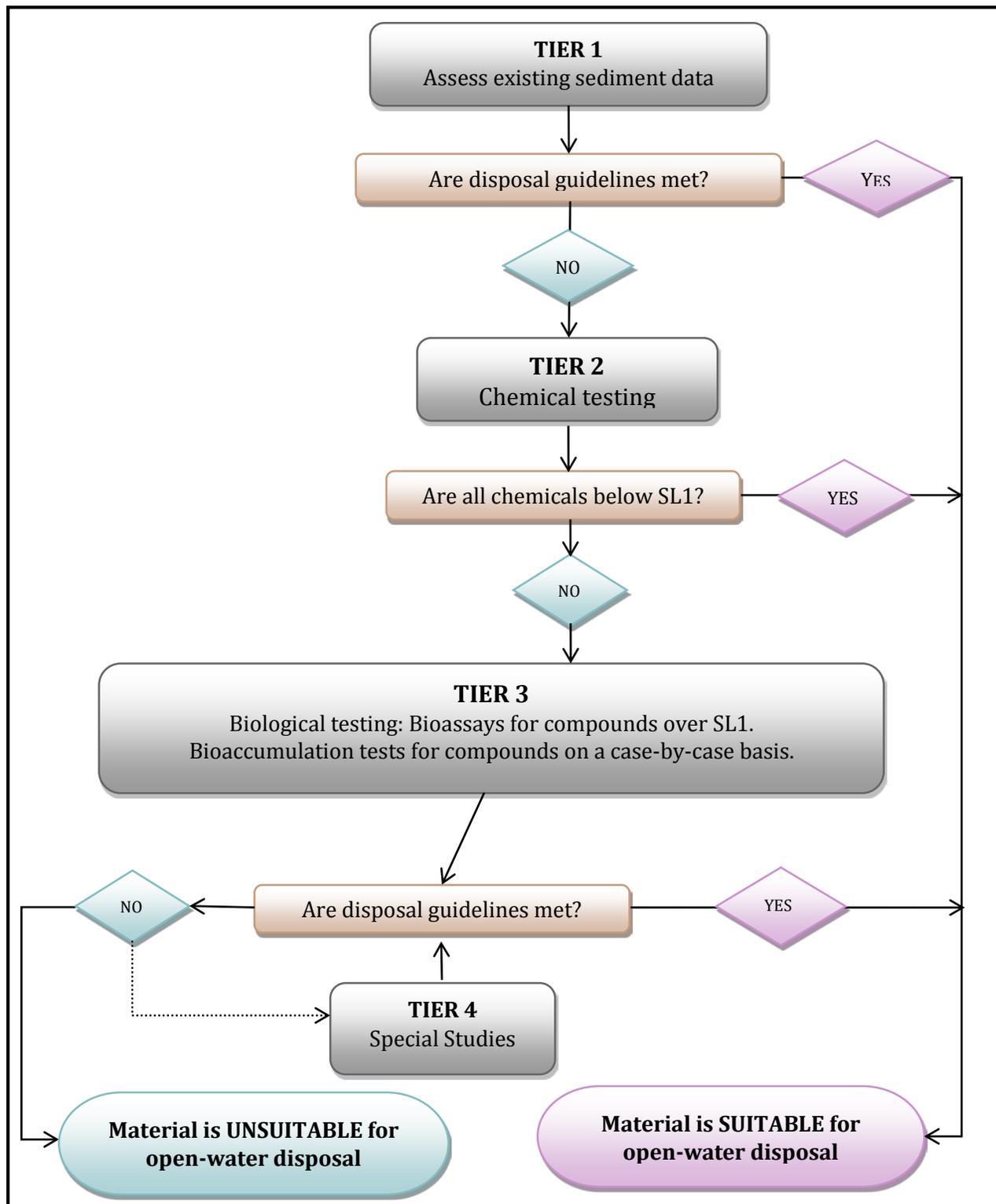


Figure 3-3. Tiered Testing Decision Diagram for Freshwater Sediment