Appendix B: Soil Management Plan

Overview

The City of Newport Department of Utilities Soil Management Plan (SMP) allows for the reuse of excavated materials unless there are clear signs of contamination. Materials in this region are generally considered urban fill, which may include a mix of sand, gravel, brick, ash, cinders, and construction debris. However, reuse is restricted if the soil exhibits potential contamination indicators.

Indicators of Potential Contamination

Visual Indicators:

- Staining (e.g., black, green, blue, or rust-colored soil)
- Oily sheens on soil or pooled liquid in excavations
- Presence of non-native materials like plastic, glass, or metal debris

Olfactory Indicators:

- Strong chemical odors (e.g., petroleum, solvents, sulfur, or burning smells)
- Rotten egg smell (indicative of hydrogen sulfide or other volatile compounds)

Textural and Physical Indicators:

- Unusually soft or sludge-like material
- Presence of tar or asphalt residues
- High moisture content inconsistent with surrounding soil

Chemical and Analytical Indicators:

- Field screening with a Photoionization Detector (PID) showing elevated volatile organic compound (VOC) levels
- Known historical industrial or waste disposal activities in the area
- Past environmental reports indicating contamination in the vicinity

Soil Segregation for Suspected Contamination

Bottom Line Up Front

When dealing with potentially contaminated soil during emergency utility work, follow a structured approach: **identify, segregate, contain, document, and dispose.**

1. Initial Assessment

Identify Potential Contaminants:

- Observe contamination signs such as odors, discoloration, sheen, or debris.
- Review site history (e.g., industrial sites, old fuel stations, landfills).
- Utilize field testing tools like a PID or soil test kits for real-time assessment.

Notify the Relevant Authorities:

- Local environmental agency
- On-site safety officer or emergency response team
- Wastewater or stormwater management team (if applicable)

2. Segregation Methods

Establish a Clean vs. Contaminated Zone:

- Place **plastic sheeting (6-mil or thicker)** on the ground.
- Maintain **separate stockpiles** for suspected contaminated and clean soil.
- Label stockpiles with **hazard markers**.

Minimize Cross-Contamination:

- Use **dedicated equipment** for different soil piles (if feasible).
- Clean buckets, shovels, and machinery between uses.
- Prevent mixing clean backfill with questionable soil.

Tarp and Contain Stockpiles:

- **Cover soil piles** with polyethylene sheeting to prevent runoff.
- Secure edges with sandbags or weights.
- Ensure **proper slope** to avoid pooling of water.

3. Temporary Storage & Testing

Sampling & Analysis:

- Collect **representative soil samples**.
- Test for **common contaminants.**
- If time-sensitive, use **field test kits** before lab confirmation.

Containment & Holding Area:

- If contamination is confirmed, store soil in a **lined roll-off dumpster** or **sealed drums**.
- Use **secondary containment trays** for soil containing free liquids.

4. Handling & Disposal

Regulatory Compliance:

- Coordinate with the **local Department of Environmental Management (DEM)**.

Disposal Options:

- **Clean soil** → Can be reused as backfill.
- **Contaminated soil** → Transport to an **approved hazardous waste facility** or **thermal treatment site**.

Backfilling Considerations:

- If native soil is contaminated, import **certified clean fill**.
- Use **geotextile fabric** as a barrier if needed.

5. Post-Work Cleanup & Documentation

Decontaminate Equipment:

- Power-wash and **collect rinse water** for proper disposal.
- Use **absorbent pads** for residual contamination.

Report & Record Keeping:

- Document **sampling results, disposal manifests, and site conditions**.
- Submit reports to regulatory agencies as required.

Key Takeaways

✔ **Pre-plan and notify authorities** in case of contamination concerns.
✔ **Separate, tarp, and test soils** to prevent environmental impact.
✔ **Follow regulatory guidelines** for proper handling and disposal.
✔ **Ensure proper documentation** to maintain compliance.

This Soil Management Plan ensures that emergency utility work is conducted safely, minimizing environmental risks while complying with all relevant regulations.