

General Process Supporting Environmental Recovery

The priority of any cleanup effort is the safe and effective pursuit of “net environmental benefit.” Regulatory agencies, response experts and scientists use net environmental benefit analysis (NEBA) because some spill response cleanup options can be unacceptably destructive to plants, animals and habitats. These emergency responders compare the environmental consequences of natural recovery against the consequences to actively removing the oil in order to select the “best” and least harmful cleanup strategies to help the environment recover and benefit the public. This includes consideration of “bioavailability,” which means the degree, to which the oil can come into contact with, and potentially impact, wildlife and habitats. Options available range from extensive removal of soil and sediment, all the way to natural weathering. Other tools available to responders include washing, hand cleaning, vacuuming, use of absorbent pads and booms, etc. In some cases where the actions taken by responders and equipment could cause more damage to the wildlife, environment and responder safety, best practice could be allowing the oil to naturally degrade.

While “clean” means the oil has been substantially removed, sites may not be completely oil-free or fully recovered. Determining “how clean is clean” depends upon many criteria including ecological, toxicological, legal, and political criteria. Each spill is different so scientists look at many factors including, but not limited to, the following:

- degree of oiling
- type of oil
- risk to receptors
- cleanup technologies
- habitat type (e.g., shoreline type/geomorphology)
- species present
- ecological factors
- archeological factors
- cultural resource issues
- bioavailability of the oil
- safety concerns (risk to human life to perform cleanup)
- logistical issues
- waste minimization issues
- anticipated rate of natural “cleaning”
- weather

Grove Incident

Emergency Response: During the emergency response of the Grove Incident, several earthen dams were constructed to limit the spread of the spill. Oil spill response contractors used vacuum trucks to remove pooled oil from the dry bed of the Hall Creek Channel.

Following removal of pooled oil controlled flushing and recovery operations occurred. Techniques included the use of hot water to more effectively remove oil from large boulders and cobbles. Vegetation was cut using hand tools to minimize disturbance of the natural surroundings.

Maintenance and Monitoring: These actions are still being engineered and discussed among regulatory agencies, response experts and scientists. They are looking closely at the dynamics of the creek during dry and wet conditions, the geologic stability of the creek boundaries, the animals and vegetation living in the area, and the residents and local community to find the most effective methods for clean-up for this response.