Spike Drilling Oil Spill

EPA-R6 Emergency Management Branch responds to an oil discharge affecting more than four creek miles in Fort Bend Co., TX

On June 10, 2017, an EPA-R6 response team consisting of a Federal On-Scene Coordinator and technical contractors responded to a 130-barrel oil spill near the town of Damon, Fort Bend Co., Texas. The spill went unreported for almost a week until a warden with TX Parks & Wildlife (TPWD) called EPA-6 requesting assistance when heavy rains pushed the oil from a farm field into a nearby creek. The spill originated from a faulty valve fitting at an oil tank battery owned and operated by Spike Drilling & Operating LLC, the responsible party (RP). After assessing the incident, the FOSC noticed that about 4 miles of Cow Creek have been impacted and that a considerable amount of fresh oil throughout the length of the creek remained unrecovered by the response contractor hired by the RP several days earlier. Cow Creek is a tributary of the Brazos River and additional rains in the forecast threaten the oil to flow further downstream into the Brazos, just two miles downstream. The FOSC quickly coordinated a comprehensive approach to prioritize oil recovery within the creek by increasing the number of the RP response assets and concentrating efforts at collection points within the creek readily accessible by equipment. Ground crews were to push the oil by flushing with water and with air blowers. In the meantime, the FOSC coordinated with the Texas Railroad Commission (TRRC), a remediation plan to be performed by the RP for the affected soil within the farmland surrounding and downstream from the tank battery. About half an acre and 500 yards within a drainage downstream from the tanks was affected by the oil.

Within 72 hours the vast majority of the fresh oil had been recover from the creek and the banks flushed with fresh water to avoid additional "bleeding" from oiled vegetation. The affected soil by the tank battery had been excavated for disposal and the exposed surface treated with a no-toxic, biodegradable organic solvent and hydrocarbon breaker. This response involved the coordination of EPA-6 with multiple state and local agencies including the TRRC, TPWD, and both the Fort Bend County Emergency Management Office and the Environmental Department. The response by EPA-R6 allowed for a quick removal of oil from a creek used by many local ranchers as a water source for cattle, and prevented a significant amount of oil from reaching the Brazos River, one of the top recreational and drinking water sources in the State.

Cow Creek bank flushing activities. Crews ready to remove oil at one of the collection points. Credit: Roberto Bernier