

3. SPILL EVENT AND INITIAL RESPONSE

The first several days and weeks after the gasoline spill occurred were extremely hectic. Numerous state and federal agencies were involved, and controlling authority over the environmental response and remediation activities changed as the conditions evolved. SRA officials were actively involved from the earliest stages and have maintained a close involvement in the progress of the cleanup in the days, weeks, and months since the spill occurred. Following is a brief description of the activities and conditions in the days after the pipeline ruptured.

3.1 Description of Spill

Explorer's gasoline pipeline is located just west of Lake Tawakoni. It transfers product from South Texas and Louisiana to points to the north, including the Dallas/Fort Worth metroplex and up to Chicago, Illinois. At its closest point, the pipeline is less than three miles from the reservoir. More than 500,000 barrels of fuel is normally transported through the Texas section of the pipeline each day. It is buried about four feet underground (Explorer 2000).

The pipeline ruptured late in the evening on Thursday, March 9, when a four-foot long by one-foot wide gash opened in the pipe. Nearby residents alerted local officials of strong gasoline odors in East Caddo Creek. At the time of the release, the pipeline was operating at approximately 600 pounds per square inch of pressure. The pipeline leak was detected immediately by Explorer operators, and the pipeline was completely shut down after the rupture occurred. Explorer notified the National Response Center (NRC) and the TNRCC of the spill about two hours after the spill occurred. The NRC in turn alerted other federal and state agencies with regulatory responsibilities for the event, including the NTSB, OPS, and EPA. SRA was initially notified by the TPWD. SRA and the TNRCC had representation onsite the morning after the rupture occurred.

Gasoline flowed across a grassy pasture and collected in a gully that drains into East Caddo Creek. The clay soils in the pasture were extremely dry at the time of the spill, and large surface cracks were abundant. As the gasoline flowed over the ground surface, some product infiltrated into the soil via the cracks. A large pool of fuel collected several hundred feet west of the pipeline in a low-lying area, and some fuel drained down

a nearby dry gully to East Caddo Creek. The affected tributary and East Caddo Creek were dry at the time of the release from the spill site to at least the IH 30 bridge crossing 12.6 miles downstream. Intermittent perennial pools were present further downstream, and little flow was evident.

3.2 Spill Site and East Caddo Creek Activities

The initial environmental response at the spill site and the creek was led by the EPA, with input from Explorer and the TNRCC. Explorer enlisted the services of multiple private emergency response contractors to conduct the response activities. The response team's initial concern regarding the spill focused on the potential for an explosion from the gasoline vapors. Given the large volume of gasoline and impending inclement weather, the safety of workers was the overriding concern. In the hours after the spill, emergency responders contained the gasoline behind earthen berms constructed at FM 903 and FM 1062 about one mile downstream of the spill. Vacuum trucks collected pooled gasoline from the pasture and the creek. A major rainfall event the day after the spill forced the response effort to be halted for safety reasons, and the control dams were washed away by the rainfall runoff into the creek.

Daily communication updates were held in the morning and the afternoon. Morning meetings were initially conducted by EPA and then Explorer at a makeshift command post initially established at the intersection of FM 903 and FM 1062 near the spill site and later were relocated to Explorer's tank farm located several miles southwest of Greenville. Afternoon meetings were held at a hotel in the city of Greenville and conducted by the NTSB. Representatives from SRA, the city of Dallas, TNRCC, NTSB, Explorer, OPS, and several water customers attended the meetings. At each meeting, SRA provided each attendee with updated lake monitoring results.

3.3 Lake Tawakoni

Because SRA had already begun monitoring Lake Tawakoni after the gasoline spill occurred, the TNRCC delegated monitoring responsibilities in the reservoir to SRA. SRA resources were used to conduct the monitoring activities. At SRA's request, TNRCC provided SRA with some additional equipment and personnel to assist with the collection of samples in the reservoir. SRA began sampling in the reservoir on March 12

and continued monitoring on a daily basis for several weeks. Representatives from TNRCC Regions 4, 5, and 9 assisted with the early sampling effort. SRA's reservoir monitoring efforts are discussed in more detail in Section 4 (Monitoring Activities).

3.4 Downstream of Lake Tawakoni

Although Lake Tawakoni was more than six feet below normal water levels at the time of the spill, SRA was concerned with the potential that the reservoir could quickly fill after several episodes of precipitation. If the reservoir filled to spill conditions with MtBE-contaminated water, the possibility existed for contaminating the Sabine River downstream of Lake Tawakoni, which would impact water users along the river and ultimately Toledo Bend Reservoir.

SRA explored the possibility of raising the level of the spillway three to four feet on a temporary basis, which would provide more than 115,000 to 150,000 additional acre-feet of reservoir storage. From a technical standpoint, this option was feasible, but the conditions of the reservoir eliminated the need for this action. Reservoir levels in the weeks after the spill remained low despite rainfall events in the reservoir's watershed because the ground appeared to be absorbing the vast majority of the precipitation. Additionally, analysis of the quantity of MtBE in the reservoir showed that if the total amount of MtBE that was estimated to have entered Lake Tawakoni were to completely disperse, concentrations well below health effects levels and below regulatory taste and odor threshold levels would result.