

3.12 Special Waste

Special waste sites have the potential to contaminate soil and groundwater. There are both state and federal regulations for investigating and cleaning up such sites. Any construction of a new roadway considers and avoids to the maximum extent possible sites where soil and groundwater may be contaminated by petroleum or chemicals.

What are special waste sites?

Special waste is a broad category that includes hazardous wastes and other types of wastes that are less toxic. The USEPA regulates hazardous wastes as these have the greatest potential to affect human health or the environment.

Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) sites are identified by the USEPA as having potential, suspected, and known hazardous waste or hazardous substances. Hazardous substances include all those substances that are considered to be severely harmful to human health and the environment. CERCLIS sites are of greater environmental impact.

Special wastes are regulated by the Illinois Environmental Protection Agency (IEPA) and also include a variety of waste materials, such as:

- potentially infectious medical waste,
- pollution control waste, or industrial process waste,
- petroleum contaminated soils.

Special waste must be managed and disposed of properly to protect human health and the environment. Special waste sites affect construction projects because of high clean-up costs and safety hazards through exposure and material handling.

Studies completed for the US 51 study area identified special waste sites and their characteristics. Several types of special waste sites are identified; the locations and characteristics of these sites determine potential impacts. Sites where soil, and/or water, and/or sediment contamination from petroleum or chemicals might occur are called Recognized Environmental Conditions (RECs).

What are Hazardous Wastes?

Hazardous wastes are ignitable, corrosive, reactive, or toxic. Wastes listed as hazardous in Illinois are listed in Subpart D of 35 IL Admin. Code 721. Examples include benzene, carbon tetrachloride, and trichloroethylene, common and widely used industrial chemicals.

What is Pollution Control Waste?

A pollution control waste is generated directly or indirectly when businesses remove contaminants from air, soil, or water. Examples include landfill waste, scrubber sludge, and chemical spill cleaning materials.

What are Recognized Environmental Condition Sites (RECs)?

The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or material threat of any hazardous substances or petroleum products into structures on the property or the ground, ground water, or surface water of the property. RECs are an all-inclusive term that includes special waste sites plus sites that may or may not (upon further testing) become special waste sites. For purposes of this document, the term RECs and Special Waste sites are used synonymously.

Where are the special waste sites and REC sites?

The US 51 study area identified sites where there is a potential for soil or groundwater contamination. There are a variety of activities or conditions that could cause contamination. These sites are concentrated in Centralia and Vandalia, as these are the largest urbanized areas within the study area.



*Sandoval Zinc Smelter,
Site 1754-FM*



Pipe Supply Company, Site 1754-IQ

The REC sites identified in the study area include:

- Three CERCLIS sites, including one Superfund site
- 263 former, current or potential underground storage tank (UST) sites
- 108 leaking underground storage tanks (LUST) sites
- 78 above-ground storage tank (AST) sites
- 36 Resource Conservation and Recovery Act (RCRA) sites including one that is on the Corrective Action list
- 44 chemical use sites
- 20 monitoring well sites (Monitoring wells are used to test groundwater where contamination has occurred)
- 12 sites with documented organic chemicals on site
- Five stream crossings where the water quality standards that protect drinking water, fish, and insects, were not achieved.
- 28 petroleum pipeline crossings
- Other REC sites are drums, crude oil extraction area, landfill, a manufactured gas plant, oil wells, spill sites, railroad ties, dump sites, transformer spills, lead paint waste, and sites where IEPA identified potential issues.

What is Superfund?

Superfund is the federal government's program to clean up hazardous waste sites where there is no responsible owner.

What is RCRA?

RCRA is a 1976 law that governs the disposal of solid waste and hazardous waste.

The REC sites were identified during preparation of Preliminary Environmental Site Assessments (PESA) reports. Numerous PESAs were prepared covering the various geographical footprints of the project, as listed below.

- PESA #1754 – December 15, 2008
- PESA #1754A – December 10, 2010
- PESA #1754B – October 26, 2011
- PESA #1754D – December 7, 2012

These PESAs are incorporated by reference.

Three CERCLIS sites are present in the study area:

- Sandoval Zinc Smelter (Site 1754-FM): The site was recently added to the Federal Superfund list due to the widespread zinc contamination on site and in the community. The USEPA will initiate additional investigations but has identified the site to include an adjacent wetland. Possible hazards associated with the smelter site include acids, metals, petroleum fuels, solvents, phenols, polychlorinated biphenyls (PCBs) and volatile organic compounds (VOCs).
- Pipe Supply Company (Site 1754-IQ at McCord Street and Brooks Avenue in Centralia): Chemicals associated with the pipe supply company site include lubricants, solvents, petroleum fuels, heavy metals and VOCs.
- Fiberglass Fabricator (Site 1754-PZ at the Mitchell Lane and Wabash Avenue intersection in Centralia): Potential hazards include organic chemicals, solvents and hydraulic/waste oils.



Fiberglass Fabricator, Site 1754-PZ

How will the Alternatives affect special waste and CERCLIS sites?

Figure 3.12-1 depicts the general locations of RECs that were impacted by proposed US 51 and its alternatives. Volume II shows detailed site location information for the CERCLIS sites, RCRA Corrective Action sites, and landfills near the remaining alternatives. US 51 Build will impact 34 REC sites including a closed landfill (site 1754-EB). The alternatives for Centralia\Sandoval (CS), Vandalia (V), and Ramsey (R) each will affect between three and 17 additional REC sites. Table 3-12-1 summarizes the REC sites by alternative. Each of the alternatives, except the Ramsey Creek Options, will impact special waste sites, as not all sites could be avoided.

All identified CERCLIS sites (Pipe Supply Company, Fiberglass Fabricator, and Sandoval Zinc Smelter) will be avoided by the project alternatives. The US Environmental Protection Agency listed the Sandoval Zinc Smelter site in 2012 on the Superfund list due to contamination of the stream and nearby community. This site has been avoided by CS Alt 1 and CS Alt 2 which are the two alternatives in the Sandoval area. USEPA is sampling surrounding areas for zinc related contamination. This could potentially affect CS Alt 1 and CS Alt 2.

Figure 3.12-1: Impacted REC Locations (Page 1 of 2)

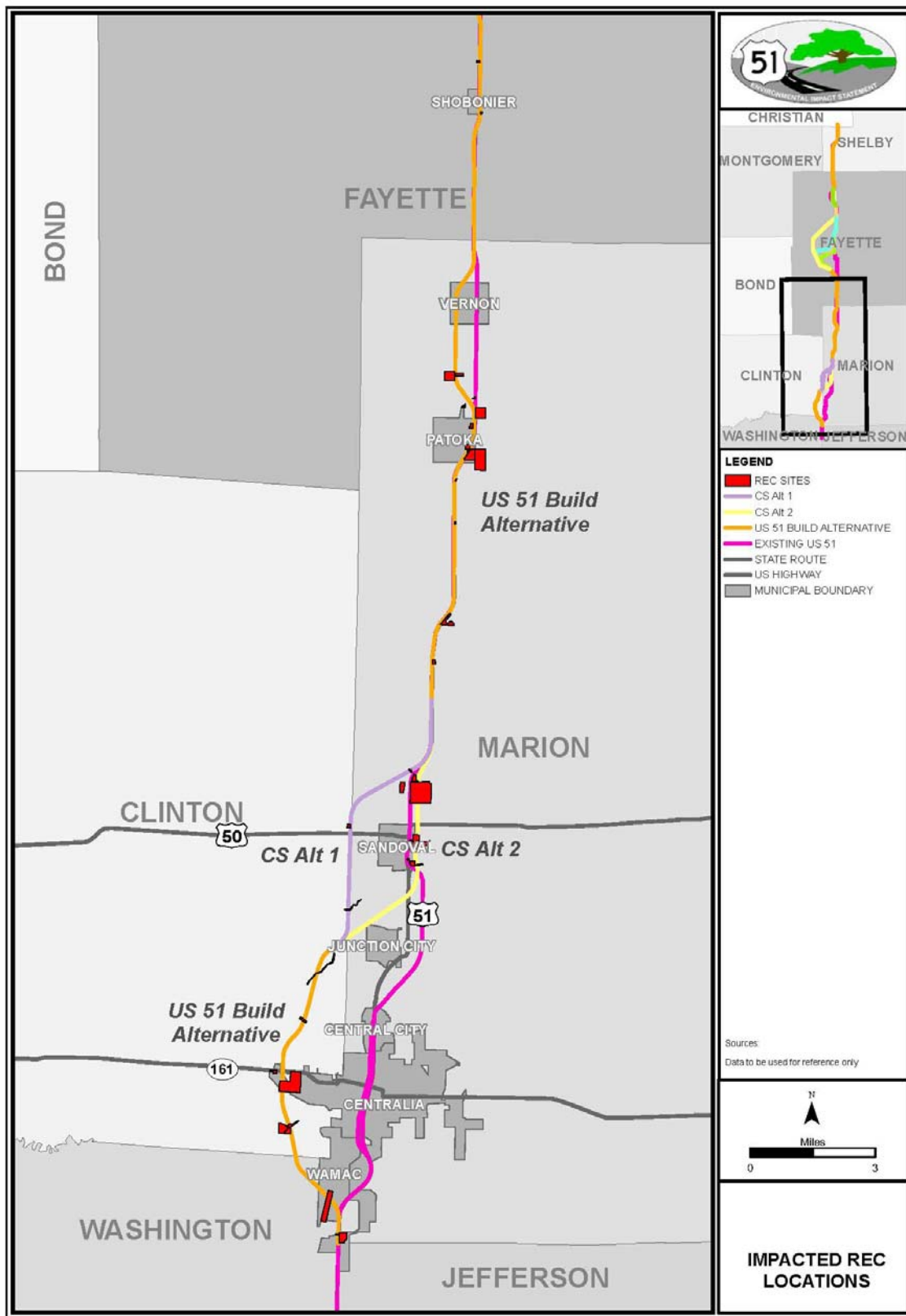
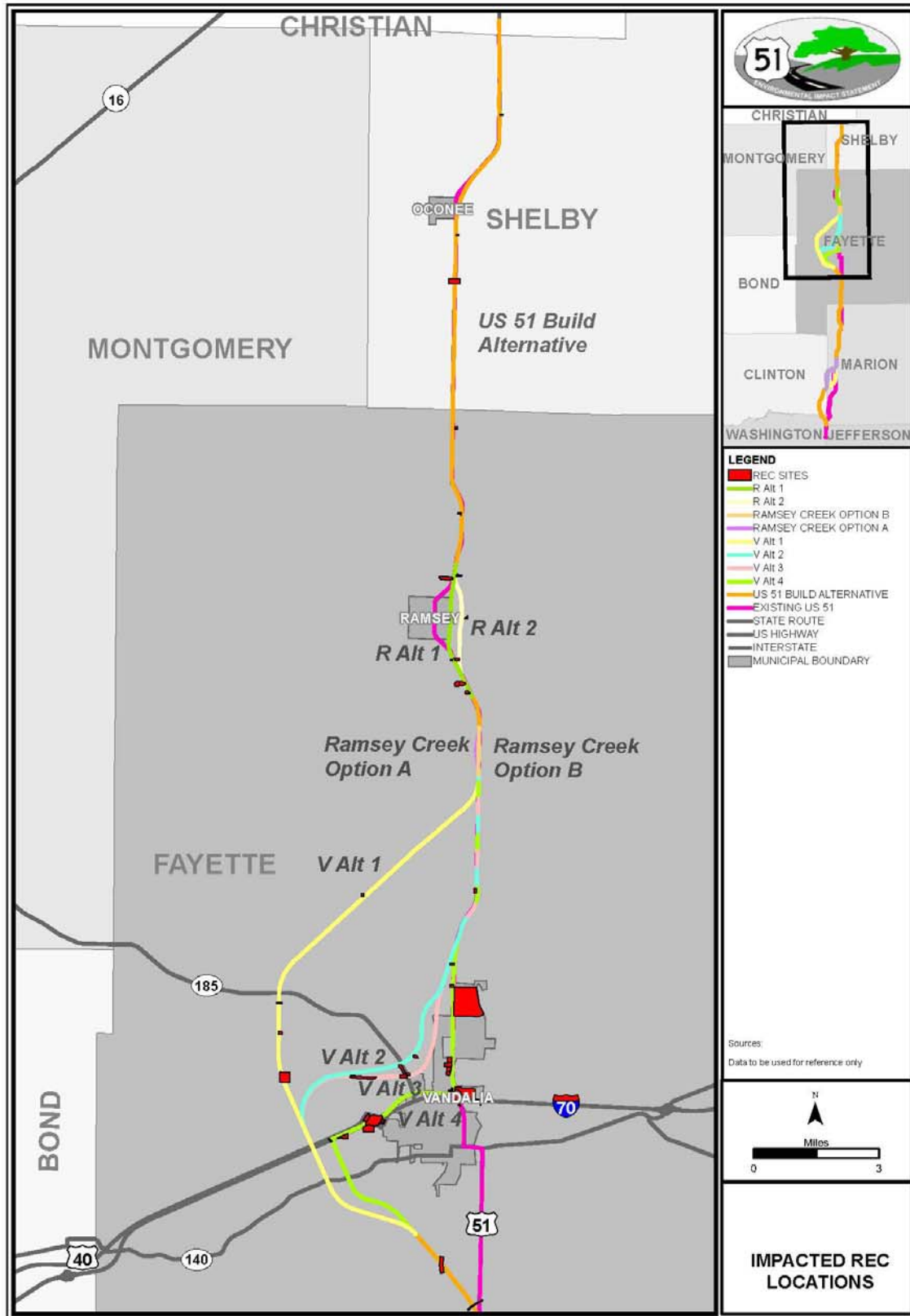


Figure 3.12-1: Impacted REC Locations (Page 2 of 2)



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Table 3.12-1 summarizes the REC sites by alternative.

Table 3.12-1: Special Waste Sites by Alternative

Type	CS Alt 1	CS Alt 2	V Alt 1	V Alt 2	V Alt 3	V Alt 4	R Alt 1	R Alt 2	US 51 Build Alt
REC Sites	4	7	4	3	3	17	7	5	34

Special Waste Impacts for CS Alt 1 and CS Alt 2

The REC sites were identified for each of the two alternatives for the Sandoval area. CS Alt 1 impacts four REC sites. In contrast, CS Alt 2, which is east of existing US 51, impacts seven REC sites. One of the seven sites is a scrap yard and landfill (Site 1754-FQ).

CS Alt 2 is located to the west of the former Sandoval Zinc Smelter (Site 1754-FM) to avoid this CERCLIS and Federal Superfund site that also contains ASTs and drums. The Sandoval Zinc Smelter CERCLIS site has been investigated by the Illinois Environmental Protection Agency. Partial cleanup has occurred for petroleum-contaminated soil, heavy metal waste, and tires.

Special Waste Impacts for V Alt 1, V Alt 2, V Alt 3, V Alt 4

The number of special waste sites affected by the four Vandalia alternatives varies by location. Figure 3.12-1 (sheet 2 of 2) depicts the location of the sites on the various alternatives. The Vandalia alternatives will impact 3 to 17 REC sites as summarized below:

Table 3.12-2: REC Impacts by Vandalia Alternatives

	V Alt 1	V Alt 2	V Alt 3	V Alt 4
Number of RECs	4	3	3	17

V Alt 1, V Alt 2, and V Alt 3 impact a comparable number of special waste sites. These sites include hazardous waste generators (RCRA), USTs, ASTs, spill sites, and chemical use sites.

V Alt 4 impacts the most sites (17 REC sites); V Alt 4 extends along existing I-70 and US 51, and impacts greater amounts of developed areas than the other Vandalia alternatives. There are greater numbers of USTs, ASTs, and RCRA sites for V Alt 4 compared to the other alternatives as shown in Table 3.12-2. V Alt 4 is also located just north of the Veterans Plaza site (1754B-171/1754-AT). This site is on the Archived CERCLIS and the RCRA Corrective Action lists. This site previously manufactured electrical transformers. The site has a No Further Remediation (NFR) letter with the following limitations: an industrial/commercial restriction, an engineered barrier for PCB encapsulation, and a groundwater restriction.

Special Waste Impacts for R Alt 1 and R Alt 2

R Alt 1 impacts seven REC sites, while the other Ramsey alternative, R Alt 2, impacts five REC sites. One of the sites R Alt 1 impacts is the Ramsey City Dump (1754D-20).

The Ramsey Creek Option A and Option B alternatives did not impact any REC sites.

What measures are proposed to minimize or resolve effects to special waste sites?

All efforts have been made to avoid special waste sites, but there is no alternative, except the Ramsey Creek Options, that avoids all special waste sites. Once the nature and extent of involvement are known and the areas of contamination are determined, those soils and water found to be contaminated would be managed and disposed of in accordance with applicable Federal and State laws and regulations and in a manner that would protect human health and environment. Special waste issues that may arise in the construction phase will be managed in accordance with the "IDOT Standard Specifications for Road and Bridge Construction and Supplemental Specifications and Recurring Special Provisions."

Additionally, it is the responsibility of the design phase, which will be completed after the environmental phase, to determine if any right-of way or easement, permanent or temporary, will be required at any of the REC locations. Further environmental studies will be conducted if the proposed improvements require excavation adjacent to a property identified with a REC or requires excavation, including subsurface utility relocation, on a property with an

easement. Any acquisition or easement will be discussed with the IDOT Bureau of Land Acquisition prior to responding to the PESA to request further studies.

In some cases, the portion of the project that involves the REC can be risk managed and not require additional assessment. If the affected property containing the REC is a full take, then the property is ineligible to be risk managed. If risk management is not possible, a Preliminary Site Investigation (PSI) is required to determine the nature and extent of possible contamination.