

3.11 HAZARDOUS MATERIALS

3.11.1 Introduction to Analysis

3.11.1.1 Summary of Results

Hazardous materials may be encountered during the construction of the proposed stations and proposed alignment associated with the Preferred Alternative. Using Regional Transportation District (RTD) methodology, there are approximately 27 sites ranked with a moderate to high risk ranking located within the proposed station footprints, and 181 sites with a moderate to high risk ranking within 1,000 feet of the station footprints (RTD 2006). In general, the potential to encounter hazardous materials is closely correlated to land use; specifically with properties that have a history of commercial and/or industrial uses. The greatest potential to encounter hazardous materials would be during construction.

The roadway and transit projects included in the No Action Alternative would likely result in direct, indirect, temporary construction, and cumulative impacts to hazardous materials. The extent of these impacts will be evaluated in the environmental documents being prepared for these projects.

3.11.1.2 Purpose

Encountering hazardous materials during construction can expose workers, adjacent residents, and other ecosystems to contaminants that may compromise health. Encountering contamination during construction can result in long-term costs associated with sampling and remediation. Prior to acquiring properties, it is important for the RTD to understand the environmental risks and liabilities.

3.11.2 Affected Environment

Hazardous material sites are those properties that have been impacted by a current or previous use that could have resulted in a release of hazardous substances or petroleum products. These materials could include:

- Pesticides
- Volatile and semi-volatile organic compounds
- Heavy metals
- Petroleum products (e.g., gasoline, diesel fuel, lubricants, etc.)
- Lead-based paint
- Asbestos-containing building materials (ACBM)

Areas of contaminated soil and groundwater contamination must be identified to evaluate several aspects of the proposed improvements, including activities associated with right-of-way (ROW), property acquisition, and identification of engineering options to minimize and mitigate impacts.

Because the largest property acquisitions for RTD are associated with the proposed stations, this section has been prepared to focus the hazardous materials evaluation on the proposed stations.

A *Modified Environmental Site Assessment* (MESA) was prepared (Walsh 2009) for the 11 proposed station locations on behalf of RTD. Walsh used criteria presented in the RTD *Environmental Methodology Manual* to rank sites within and near the proposed station footprints based on their potential to impact the stations (RTD 2006). Many of the properties within the proposed station footprints have a history of commercial and/or industrial land use where hazardous materials have been handled. As a result, the ranking criteria were modified in order to provide a more accurate assessment to gauge the relative concern among the different proposed station options. Sites identified during the data collection process were ranked as high, moderate, low, or negligible based on their potential to impact the project, using the following criteria:

- Distance from the proposed station footprint
- Use of hazardous materials
- Known soil and/or groundwater contamination
- Data obtained during file reviews
- The predicted depth and direction of groundwater flow

The MESA included a summary of the number of ranked sites by station. These sites within 1,000 feet of the proposed stations are presented in Table 3.11-1.

TABLE 3.11-1. SITE RANKING SUMMARY (SITES WITHIN 1,000 FEET OF PROPOSED STATIONS)

Station	Sites with High Potential to Impact Project		Sites with Moderate Potential to Impact Project	
	Inside Station Footprint	Outside Station Footprint	Inside Station Footprint	Outside Station Footprint
South Westminster/71 st Avenue	2	8	1	24
Westminster/88 th Avenue	1	1	0	4
Walnut Creek	0	0	0	0
Broomfield/116 th Avenue	0	2	3	8
Flatiron	0	0	0	1
Downtown Louisville	1	8	0	13
East Boulder	4	13	0	4
Boulder Transit Village	3	25	0	6
Gunbarrel	1	2	1	6
Twin Peaks	0	0	0	2
Downtown Longmont	12	12	1	12
Total Sites	24	71	6	80

Sources: NWR Corridor Project Team, 2009 and Walsh, 2009.

3.11.3 Impact Evaluation

3.11.3.1 Methodology

Sites that were ranked as high and moderate (within 1,000 feet of each proposed station footprint) were mapped and the proposed footprints were overlain. This information was used to identify potential areas of concern for either construction or land acquisition.

3.11.3.2 Results

Commercial and industrial land uses generally present the greatest risk for encountering hazardous materials. The presence and character of hazardous materials would be expected to be typical of most urban and urbanizing areas. Potential concerns include groundwater contamination from leaking underground storage tanks (LUST), ACBMs, and lead-based paint in older buildings, and contaminated soils associated with BNSF Railway Company ROW and other sites. However, there are no hazardous materials sites that would preclude construction of the No Action Alternative or Preferred Alternative, pending implementation of appropriate mitigation measures.

No Action Alternative

The No Action Alternative assumes that existing and committed improvements, as defined in Chapter 2.0, Alternatives Considered, would be implemented by others as planned.

Direct, Indirect, Temporary Construction, and Cumulative Impacts

The roadway and transit projects included in the No Action Alternative would likely result in direct, indirect, temporary construction, and cumulative impacts to hazardous materials. The extent of these impacts will be evaluated in the environmental documents being prepared for these projects.

Preferred Alternative

Direct Impacts

The majority of direct impacts to or from hazardous materials sites associated with the Preferred Alternative would occur during construction, where the potential to encounter residual contamination has been determined to be low to high. In areas where construction plans call for excavation or re-grading of soil, or where groundwater may be encountered, the potential for encountering hazardous materials is higher. Asbestos-containing building materials and lead-based paint may be encountered during building demolition.

NWR Corridor Alignment

Development of the proposed alignment extending north of the South Westminster/71st Avenue Station would share track and ROW with freight operations and would require an operating easement from the BNSF Railway Company. RTD is currently negotiating the necessary agreements with the BNSF Railway Company. Therefore, assessment of hazardous materials for those areas was not completed for this Environmental Evaluation. Assessment and management of hazardous materials during construction of the proposed alignment outside the proposed station footprints would be the responsibility of BNSF Railway Company.

Proposed Stations

Table 3.11-2 presents the sites within the construction footprint of the stations that would be ranked as moderate or high risk. Generally, rankings were based on the relationship of past land uses, which were often industrial and/or commercial in nature.

TABLE 3.11-2. SITES RANKED AS MODERATE OR HIGH AT PROPOSED STATIONS

Name of Site	Address	Ranking ¹	Comments
South Westminster/71st Avenue			
Discussion of this station is included under Phase 1.			
Westminster/88th Avenue			
US Bank, Aspen Animal Hospital	5971 West 88 th Avenue	High	Potential industrial land uses within footprint; underground storage tank activity within footprint; and LUST activity within footprint.
Walnut Creek			
No sites identified	-	-	-
Broomfield/116th Avenue			
Mini Storage	11650 Old Wadsworth Boulevard	Moderate	Onsite storage within footprint.
All Around Soil and Stone	7250 West 116 th Avenue	Moderate	Empty polyethylene tanks and unknown fill dirt within footprint.
Storage	7247 West 116 th Place	Moderate	Onsite storage within footprint.
Flatiron			
No sites identified	-	-	-
Downtown Louisville			
No name reported	1125 Short Street	High	Possible debris disposal within footprint; potential industrial land uses within footprint; and federal institutional controls.
East Boulder			
Trailer Storage Yard	6551 Arapahoe Road	High	Potential industrial land uses within footprint.
Auto Repair Facilities	6519 Arapahoe Road	High	Potential industrial land uses within footprint; potential uses of contaminants within footprint; small-quantity hazardous waste generator activity; and underground storage tank activity within footprint.
Boulder Self Storage	6423 Arapahoe Road	High	Potential industrial land uses within footprint.
Parking lot	6425 Arapahoe Road	High	Potential uses of contaminants within footprint.
Boulder Transit Village			
Sutherlands ²	3390 Valmont Street	High	Warehouse/ merchandising land; potential industrial land uses within footprint.
Sutherlands ²	3392 Valmont Street	High	Warehouse/ vacant commercial lots; potential industrial land uses within footprint.
Sutherlands ²	3390 Valmont Street	High	Warehouse land; potential uses of contaminants possible within footprint; and potential industrial land uses within footprint.

TABLE 3.11-2. SITES RANKED AS MODERATE OR HIGH AT PROPOSED STATIONS

Name of Site	Address	Ranking ¹	Comments
Gunbarrel			
Specialty Appliance, Comvertis, WCRM, TRANE, Bags	6205 Lookout Road	High	Drum storage and hazardous materials placards observed.
Econatural Solutions, Sireea Designs, Slumberjack, Kelty, Short Sports	6235 Lookout Road	Moderate	Possible commercial land-uses within footprint.
Twin Peaks			
No sites identified	-	-	-
Downtown Longmont			
Budget Home Center	780 Boston Avenue	High	Industrial land use within footprint; underground storage tank activity.
No name reported	825 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; above-ground storage tanks.
Diagonal Tire and Alignment	815 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; automotive parts and debris storage; 1,500-gallon above-ground storage tank; and drum storage.
No name reported	809 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; storage of unknown materials.
No name reported	803 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; storage of unknown materials.
Don's Custom Countertops	711 1 st Avenue	High	Industrial land use within footprint; strong solvent odors; small-quantity hazardous material generator activity.
Inskeep RV and Boat Storage	705 1 st Avenue	Moderate	Vehicle storage.
Stan's Hardwood/Avon ISR	617 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; automotive repair facility; industrial manufacturing; and storage.
Garner Storage ²	613 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; automotive repair facility; industrial manufacturing; and storage.
Garner Storage ²	613 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; automotive repair facility; industrial manufacturing; and storage.
Garner Storage ²	613 1 st Avenue	High	Industrial land use within footprint prior to current environmental regulations; automotive repair facility; industrial manufacturing; and storage.

TABLE 3.11-2. SITES RANKED AS MODERATE OR HIGH AT PROPOSED STATIONS

Name of Site	Address	Ranking ¹	Comments
JC's Automotive Center	1 South Main Street	High	Industrial land use within footprint prior to current environmental regulations; storage tanks; historic Continental Oil Company bulk fuel storage; and distribution facility.
No name reported	1 South Main Street	High	Industrial land use within footprint prior to current environmental regulations; storage tanks; historic Continental Oil Company bulk fuel storage; and distribution facility.

Source: NWR Corridor Project Team, 2009.

Notes:

¹ Rankings are based on professional judgment and the distance from the centerline of the proposed alignment or station boundary, for each information source (for example, Federal National Priority List or UST).

² These Sites are listed separately because each is a separate and unique parcel, with variable historic uses.

UST = underground storage tank

Phase 1

For Phase 1, RTD would operate on tracks exclusively dedicated to commuter rail transit from DUS to the South Westminster/71st Avenue Station and implementation would result in potential impacts to 12 hazardous waste sites and contamination within the railroad ROW. In addition, the proposed alignment would require the demolition of buildings, with the potential to encounter ACBMs or lead-based paint. In addition to these impacts, landfills in the vicinity of 60th Avenue and Pecos Street are shown as extending to the trackway footprint.

Table 3.11-3 presents the sites within the construction footprint that would be ranked as moderate or high risk. Construction-related activities that may encounter hazardous materials include the removal or replacement of contaminated track ballast or railroad ties; excavation and drilling during construction of bridge abutments and piers; and excavation during construction of the proposed alignment and proposed stations. The removal or replacement of existing, contaminated track ballast or railroad ties would be an issue throughout the freight railroad ROW.

TABLE 3.11-3. SITES RANKED AS MODERATE OR HIGH WITHIN THE PHASE 1 ALIGNMENT

Name of Site	Address	Ranking ¹	Comments
Power Rental Equipment	725 W. 39 th Avenue	High	UST within footprint and current site activity
Westric Battery Company	West of Galapago Street/South of 43 rd Avenue	High	Acid plant noted on historical documents in the 1920s
AAA Waterproofing	750 W. 48 th Avenue	High	UST within footprint and current source activity
Rocla Concrete Tie Inc.	701 W. 48 th Avenue	Moderate	Source in the footprint
Qwest Communications	5151 Fox Street	High	UST within footprint and current source activity
Owens-Corning Fiberglass Roofing Products	5201 Fox Street	High	UST within footprint, current source activity, and possible spill of hazardous materials
B&B Blending	5285 Fox Street	Moderate	Former source activity
Bioenergy of Colorado	801 W. 56 th Avenue	High	Landfill and source activity

TABLE 3.11-3. SITES RANKED AS MODERATE OR HIGH WITHIN THE PHASE 1 ALIGNMENT

Name of Site	Address	Ranking ¹	Comments
Intersection Parking Lot	53 rd Place/Fox Street	Moderate	Spill of hazardous materials on property adjacent to footprint
Broderick Superfund Site	5800 Galapago Street	High	National Priority List site that is currently undergoing remediation
Lloyd Cunningham	5901 North Federal Boulevard	High	Registered UST
Cunningham Property	5900 North Federal Boulevard	Moderate	Operations could include use of hazardous materials or petroleum products

Source: NWR Corridor Project Team, 2009.

Notes:

¹ Rankings are based on professional judgment and the distance from the centerline of the proposed alignment or station boundary, for each information source (for example, Federal National Priority List or UST)

Potential impacts to the South Westminster/71st Avenue Station are summarized in Table 3.11-4.

TABLE 3.11-4. SITES RANKED AS MODERATE OR HIGH AT THE SOUTH WESTMINSTER/71ST AVENUE STATION

Name of Site	Address	Ranking ¹	Comments
No Name Reported	3300 W. 71 st Avenue	Moderate	Potential industrial land uses within footprint.
Colorado Fire and Flood, The Cooler Company Heating and Air Conditioning, Racing Auto Body, and others	3200 W. 71 st Avenue	High	Potential uses of contaminants within footprint; potential industrial land uses within footprint.
Nolans RV and Marine	6931 Federal Boulevard	High	Potential uses of contaminants within footprint; potential industrial land uses within footprint; small-quantity hazardous waste generator activity.

Source: NWR Corridor Project Team, 2009.

Notes:

¹ Rankings are based on professional judgment and the distance from the centerline of the proposed alignment or station boundary, for each information source (for example, Federal National Priority List or UST)

Indirect Impacts

No additional indirect impacts over the No Action Alternative would be expected to result from construction of the Preferred Alternative.

Temporary Construction Impacts

Temporary construction impacts would be the same as those identified under Direct Impacts.

Cumulative Impacts

Hazardous material would potentially be encountered during construction of the Preferred Alternative. These materials would be removed during construction, and properly disposed if they are encountered. The construction of all other infrastructure required to accommodate the future population growth, including the other FasTracks corridors, would result in the exposure and remediation of unknown quantities of hazardous materials. Therefore, these

materials would no longer represent a potential threat to human health and the environment. The operational effects of future projects on hazardous waste generation are closely controlled by state and federal regulation, thereby avoiding the hazardous materials impacts of the past.

3.11.4 Mitigation Measures

Mitigation techniques to reduce identified impacts to hazardous materials are described in Table 3.11-5.

TABLE 3.11-5. PROPOSED MITIGATION MEASURES - HAZARDOUS MATERIALS

Impact	Impact Type	Mitigation Measures
Existing hazardous material sites within and adjacent to areas of proposed excavation and acquisition of property	Construction	<ul style="list-style-type: none"> • Prepare a Materials Management Plan to address the potential to encounter contaminated soil and groundwater. • Conduct an individual site-specific Phase I ESA of properties prior to acquisition. • Complete site-specific Phase II ESA with subsurface investigation (soil and groundwater) for sites that may have been contaminated or affect final design, as documented by the Phase I ESA, where appropriate. • Determine engineering controls to minimize quantity of contaminated materials. • Determine long-term maintenance of potentially contaminated properties. • Complete an asbestos survey and a lead-based paint survey on the buildings or structures proposed for demolition; complete abatement as needed. • Follow Section 250 (Environmental, Health and Safety) of the CDOT Standard Specifications for Road and Bridge Construction.
Water quality protection	Construction	<ul style="list-style-type: none"> • Implement construction BMPs in accordance with a Stormwater Pollution Prevention Plan. BMPs may include secondary containment areas for refueling construction equipment, berms or ponds to control runoff, and a monitoring program to test stormwater for contaminants prior to discharge from the construction site.
Protection of worker health and safety	Construction	<ul style="list-style-type: none"> • Prepare and implement a Health and Safety Plan. • Compliance with Occupational Safety and Health Administration requirements for construction workers who may be exposed to hazardous materials.

Source: NWR Corridor Project Team, 2009.

Notes:

BMP = best management practices

ESA = Environmental Site Assessment