LMS/GJO/S02013-2.0

# Long-Term Surveillance and Maintenance Plan for the Grand Junction, Colorado, Site

**April 2025**

U.S. DEPARTMENT OF ENERGY | Legacy Management

*This document has been designed for online viewing.*

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# Abbreviations

| | |
|---|---|
| AEC | U.S. Atomic Energy Commission |
| AS&T | Applied Studies and Technology |
| CCR | *Code of Colorado Regulations* |
| CDPHE | Colorado Department of Public Health and Environment |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CFR | *Code of Federal Regulations* |
| D&D | Decontamination and Decommissioning |
| DOE | U.S. Department of Energy |
| ft | feet |
| IC | institutional control |
| LM | Office of Legacy Management |
| LTS&M | long-term surveillance and maintenance |
| LTSP | Long-Term Surveillance Plan |
| RI/FS | Remedial Investigation/Feasibility Study |
| ROD | Record of Decision |
| RRM | residual radioactive material |
| RTC | Riverview Technology Corporation |
| UMTRCA | Uranium Mill Tailings Radiation Control Act |

# Forms Referenced in This Document

LMS forms are accessible on the **Document Management** homepage > **LMS Forms**.

| | |
|---|---|
| *Landowner/Stakeholder Notification Form* | LMS 1013 |
| *Pre-job Brief/Safety Meeting Attendance Record* | LMS 1554 |
| *Site Inspection Photo Log* | LMS 2172 |

# 1.0 Introduction

## 1.1 Purpose

The purpose of this Long-Term Surveillance and Maintenance (LTS&M) Plan is to specify how the U.S. Department of Energy (DOE) Office of Legacy Management (LM) will provide for long-term stewardship of the Grand Junction, Colorado, Site (hereafter referred to as the site). LM is responsible for the preparation, revision, and implementation of this LTS&M Plan, which specifies requirements for inspections, monitoring, maintenance, reporting, and maintaining site records. The update of this LTS&M Plan follows the analysis and recommendations provided in the *Summary of D&D/Other/AEC/MED Site Management Requirements and Practices* (DOE 2023b).

## 1.2 Legal and Regulatory Requirements

DOE holds title to and responsibility for the radioactive and other hazardous materials generated at the site before 2001, when the site was transferred to Riverview Technology Corporation (RTC). DOE acquired the radioactive materials under authority of the Atomic Energy Act of 1954 (PL 83-703). The primary relevant and appropriate regulations for surface remediation (soils and buildings) of the site were Title 40 *Code of Federal Regulations* Section 192 (40 CFR 192) and DOE Order 5400.5.[1] These regulations specified release limits for radium, uranium, and thorium in soil; radon concentration and surface contamination limits in structures; direct gamma exposure; and total effective dose. Most of the radioactive materials at the site consisted of uranium mill tailings, which are similar to materials regulated either as residual radioactive material (RRM) under 40 CFR 192 or regulated as 11(e)(2) byproduct material under the Atomic Energy Act of 1954, as amended. Site groundwater is regulated under Title 5 *Code of Colorado Regulations* Section 1002-41 (5 CCR 1002-41), "The Basic Standards for Ground Water," and 40 CFR 192. Site surface water is regulated under 5 CCR 1002-35, "Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins." The regulatory framework and regulatory documents for the site are summarized in Table 1.

Remediation of the site was conducted in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended. In 2001, a portion of this former federal property was transferred to RTC in accordance with applicable provisions of CERCLA Section 120(h). Radioactive materials removed from the site (known until 2003 as the Grand Junction office) were accepted for codisposal with Uranium Mill Tailings Radiation Control Act (UMTRCA) RRM at the Grand Junction, Colorado, Disposal Site (a separate site about 18 miles south of the site), in accordance with the Record of Decision (ROD) (DOE 1989b).

[1] While site restoration was under the authority of the Surplus Facilities Management Program, the standards conveyed in the *U.S. Department of Energy Guidelines for Residual Radioactive Material at Formerly Utilized Sites Remedial Action Program and Remote Surplus Facilities Management Program Sites* applied. These guidelines were superseded by DOE Order 5400.5, which was then superseded by DOE Order 458.1 in 2011 (DOE 2011).

*Table 1. Site Regulatory Framework and Documents*

| Regulatory Document | Date | Purpose |
|---|---|---|
| Atomic Energy Act | 1954 | Management of nuclear materials and facilities. |
| CERCLA | 1980 | Funding, requirements, and process for cleanup of abandoned or uncontrolled hazardous waste sites. |
| 40 CFR 192 | 1983 | Health and environmental protection standards for uranium and thorium mill tailings. Soil and groundwater cleanup standards. |
| DOE Order 5400.5 (archived) | 1993 | Radiation protection of the public and the environment. Release limits and standards for radon concentration, surface contamination limits in structures, direct gamma exposure, and total effective dose. |
| ROD | 1989 | Documented the decision for remedial actions of soils and groundwater at the site per the CERCLA process. |
| Finding of No Significant Impact | 1990 | National Environmental Policy Act (NEPA) document that stated the proposed remedial action was adequately addressed in the Remedial Investigation/Feasibility Study (RI/FS) and that there was no need for additional NEPA documentation. |
| Quitclaim Deed | 2001 | Deed that transferred the site to RTC. The deed contains land and water use restrictions at the site, right of access, and responsibility for remediation of contamination remaining onsite. |
| Enforceable Agreement | 2001 | Agreement between LM and the Colorado Department of Public Health and Environment (CDPHE) that states LM's commitment and strategy to remediate the site, summarizes controls specified in the Quitclaim Deed, and acknowledges CDPHE enforcement authority. |
| Code of Colorado Regulations 5 CCR 1002-35 | 2019 | Surface water standards for Gunnison River adjacent to the site. |
| Code of Colorado Regulations 5 CCR 1002-41 | 2020 | Groundwater standards for the site. |

LM has certain obligations under CERCLA regarding transfer (conveyance) of this property to other entities because the property has a prior history of releasing and storing hazardous substances. The following requirements were addressed in the Quitclaim Deed between DOE and RTC (DOE 2001c) (Appendix A):

- DOE submitted information to the property recipient concerning (1) the type and quantity of hazardous substances that were known to have been released or disposed of or stored for 1 year or more on the property; (2) the time such disposal, release, or storage took place; and (3) a description of remedial action taken that was required under subsection 120(h)(1) of CERCLA and Title 42 *United States Code* Section 9620 (h)(3)(A)(i) (42 USC 9620 [h][3][A][i]).
- DOE warranted that all remedial action necessary to protect human health and the environment had been taken or was in place before the date of the conveyance, with exceptions noted in the deed.
- DOE identified two areas where radioactive contamination remained, identified the protective controls in place to protect human health and the environment, and identified the remediation plan for these areas. These areas of deferred remediation were addressed in a CERCLA 120(h) request for deferred remediation to the State of Colorado.

- DOE reserved a right of access to all portions of the property for environmental investigation, remediation, or other corrective action. This reservation includes the right of access to and use of available utilities at reasonable cost to DOE. These rights are exercisable in any case in which a remedial action, response action, or corrective action is found to be necessary after the date of the conveyance or in which access is necessary to carry out a remedial action, response action, or corrective action on adjoining property. Pursuant to this reservation, the United States and its respective agencies, officers, agents, employees, contractors, and subcontractors reserved the right to (1) enter the property and conduct investigations and surveys, including drilling, borings, data and records compilations, and other activities related to environmental investigation and also to (2) carry out remedial or removal actions as required or necessary, including the installation and operation of monitoring wells, pumping wells, and treatment facilities and the use of other actions deemed necessary by DOE to comply with federal and state statutes, regulations, or any court order.

## 1.3 Content and Format

This LTS&M Plan adopts the approach outlined in the *Guidance for Developing and Implementing the Long-Term Surveillance Plans for UMTRCA Title I and Title II Disposal Sites* (DOE 2012), referred to hereafter as the Long-Term Surveillance Plan (LTSP) Guidance Document. The LTSP Guidance Document defines the content of a site-specific LTSP and the general requirements for the long-term custody and care of a typical remediated uranium mill tailings site, as shown in Table 2. Although the site is not an UMTRCA Title I or Title II site, the LTSP Guidance Document has been used to develop former versions of this LTS&M Plan and provides a consistent, accepted format that specifies content needed for long-term stewardship of the site.

*Table 2. Requirements for the LTS&M Plan and Custodian of the Site*

| Requirement[a] | Location in This LTS&M Plan |
|---|---|
| **LTS&M Plan Requirements** | |
| Legal description of site | Section 2.1 |
| Description of final site conditions | Section 2.3 |
| Description of the long-term surveillance program | Section 3.0 |
| Criteria for follow-up inspections | Section 3.4.1 |
| Criteria for maintenance and emergency measures | Section 3.5.3 |
| **Long-Term Custodial Requirements** | |
| Implementing changes to the LTS&M Plan | Section 3.1 |
| LM permanent right-of-entry | Sections 1.2 and 3.1 |

**Note:**
[a] These requirements are specified in the LTSP Guidance Document.

## 1.4 Role of LM

In December 2003, DOE formally established LM, whose mission includes conducting LTS&M at closed "legacy" sites (i.e., reclaimed but with onsite waste disposal or residual legacy contamination, or both) to ensure sustainable protection of public health, safety, and the

environment. LM is responsible for performing LTS&M and land stewardship activities at LM sites, including this site.

During long-term stewardship, changes in site conditions may require changes to this LTS&M Plan (e.g., if periodic evaluation of the long-term groundwater and surface water monitoring program warrants modifications). In such circumstances, LM will notify the Colorado Department of Public Health and Environment (CDPHE) before implementing the proposed modifications and revise the LTS&M Plan accordingly for CDPHE concurrence.

LM implements an Environmental Management System to incorporate life-cycle environmental considerations into LTS&M activities (DOE 2020b). LM's Environmental Management System process ensures that LM maximizes beneficial use of finite resources; minimizes wastes and adverse environmental impacts; and meets or exceeds compliance with applicable environmental, public health, and resource protection laws, regulations, and DOE requirements.

LM is responsible for managing contamination left onsite after transfer of the site to RTC. These final site conditions are described in Section 2.3. LM will maintain protectiveness by adhering to the LTS&M provisions described in Section 3.0. LTS&M activities include inspections, monitoring, and reporting; they are described in Section 3.0 as well.

# 2.0 Site Background and Status

## 2.1 Description of Site

### 2.1.1 Location and Property Ownership

The site is at 2597 Legacy Way, Grand Junction, Colorado, approximately 0.6 mile (1.1 kilometers) from Main Street in downtown Grand Junction (Figure 1). The property lies in Sections 26 and 27, Township 1 South, Range 1 West, Ute Principal Meridian, in Mesa County, Colorado. The site occupies approximately 54.17 acres along the Gunnison River, which abuts the property on the north and west sides. Property adjacent to the east side of the site is owned by Union Pacific Railroad; east of that is a City of Grand Junction municipal cemetery.

The property was acquired by the U.S. War Department in 1943 and subsequently was administered by the U.S. Atomic Energy Commission (AEC), the Energy Research and Development Administration, and DOE. In September 2001, a portion of the property (46 acres) was transferred to RTC, a nonprofit business development entity sponsored by Mesa County and the City of Grand Junction. In December 2001, the remainder of the property (8 acres) was transferred to the U.S. Army. In 2018, LM reacquired the 8-acre property and associated 18,900-square-foot building from the U.S. Army Reserve to provide additional workspace for LM's expanding mission. The legal description of the property is presented in Appendix A.

The site is accessed from the east by Legacy Way, the only public road leading to the site (Figure 1). The site is used for light industrial and commercial activities. Occupants include the Western Colorado Business Development Corporation Small Business Incubator, various small businesses, and LM. Principal land uses in areas adjacent to and near the site include the municipal cemetery, agriculture, gravel extraction, and wildlife habitat. The closest residence is approximately 0.1 mile from the site.

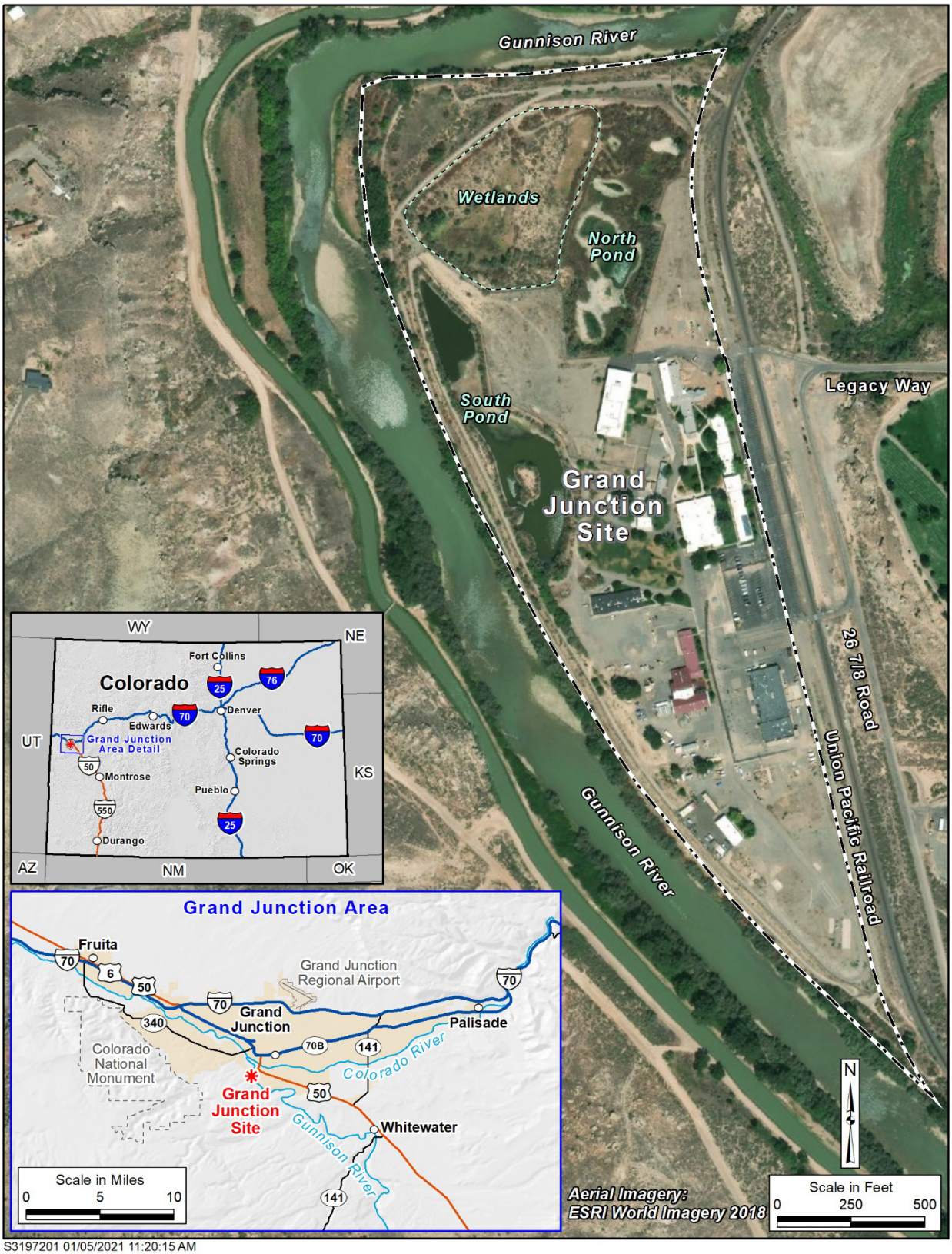



*Figure 1. Location of the Site*

### 2.1.2 Topography and Geology

The site is in the Canyonlands portion of the Colorado Plateau physiographic province. Principal structural features in the area include the Grand Valley, which contains the Colorado River drainage; the Uncompahgre Plateau, a broad uplifted area of sedimentary rocks and a Precambrian core, to the south; the Grand Mesa, a basalt-capped sedimentary highland with elevations as high as 11,000 feet (ft) above mean sea level, to the east; and the Book Cliffs, an erosional escarpment that extends into Utah, to the north. The site is at the boundary between the Grand Valley and the Uncompahgre Plateau. Elevation of the site is approximately 4560 ft above mean sea level (DOE 1989a).

The site is within an accretionary bend of the Gunnison River approximately 0.5 mile (800 meters) upstream from its confluence with the Colorado River. At the site, the Gunnison River canyon is 1500 to 2200 ft wide and 60 to 160 ft deep. An earthen flood-control dike along its western boundary keeps the site out of the 100-year floodplain, although the site remains within the 1000-year floodplain.

The Brushy Basin Member of the Morrison Formation and the overlying Burro Canyon Formation are exposed in the canyon walls surrounding the site. The strata at this location dip approximately 3 degrees northeast as part of local monoclines at the north edge of the Uncompahgre uplift (Figure 2). Several small, local faults occur along the anticlinal hinge of these monoclines. Other faults occur in the sedimentary rocks adjacent to the site; these faults likely will not allow hydraulic communication with lower permeable strata because clays in the Morrison Formation will seal the fault planes (DOE 1989a).

Sandy loam soil at the site ranges in thickness from several inches to several feet. The soil is underlain by Quaternary river alluvium, which rests on top of Brushy Basin Member bedrock (Figure 3) (DOE 1989a).

### 2.1.3 Hydrology

The alluvial sediments beneath the site comprise an unconfined aquifer consisting of two facies, a silty sand unit overlying a basal unit of poorly sorted, unconsolidated sands and gravels. These units are laterally consistent across the site. This aquifer is in direct hydraulic contact with the Gunnison River. The alluvial aquifer is bounded on the east by Brushy Basin Member silts, shales, and sandstones and on the west and north by the Gunnison River (Figure 3). The alluvial aquifer continues upgradient along the east bank of the river. Brushy Basin strata beneath the alluvial sediments form an aquitard. The alluvium averages between 20 to 25 ft thick, and depth to groundwater ranges from 5 to 10 ft over much of the site (DOE 1989a).

At the north end of the site, a portion of remediated land was not backfilled, resulting in a depression that is recharged by groundwater and creating 1.45 acres of jurisdictional wetlands (Figure 1). A portion of this area lies below the low-water level in the river and is inundated or saturated year-round, while other portions of this area dry out during periods of low water.

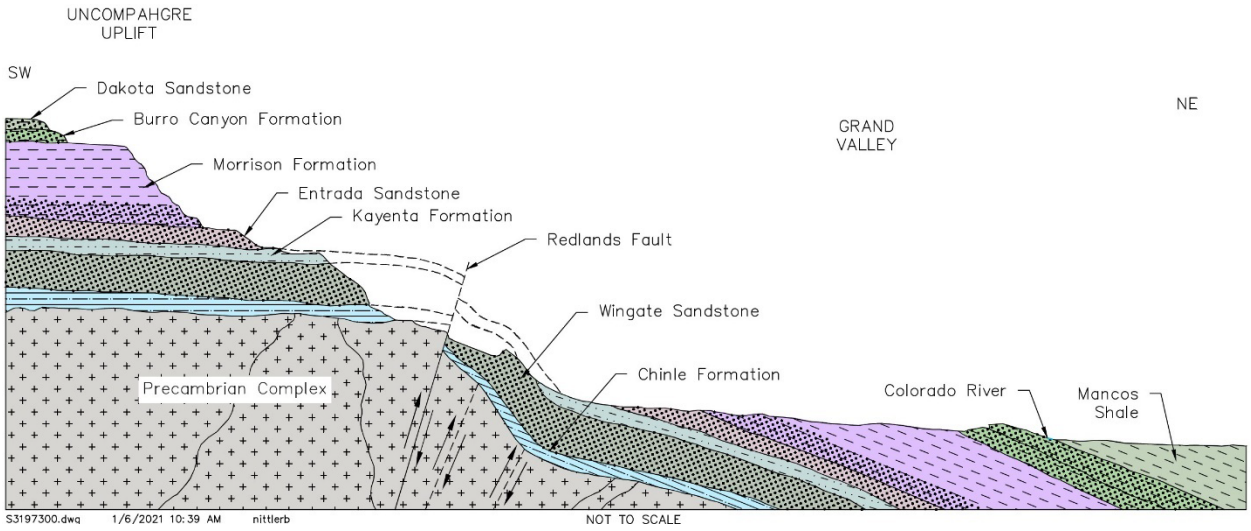
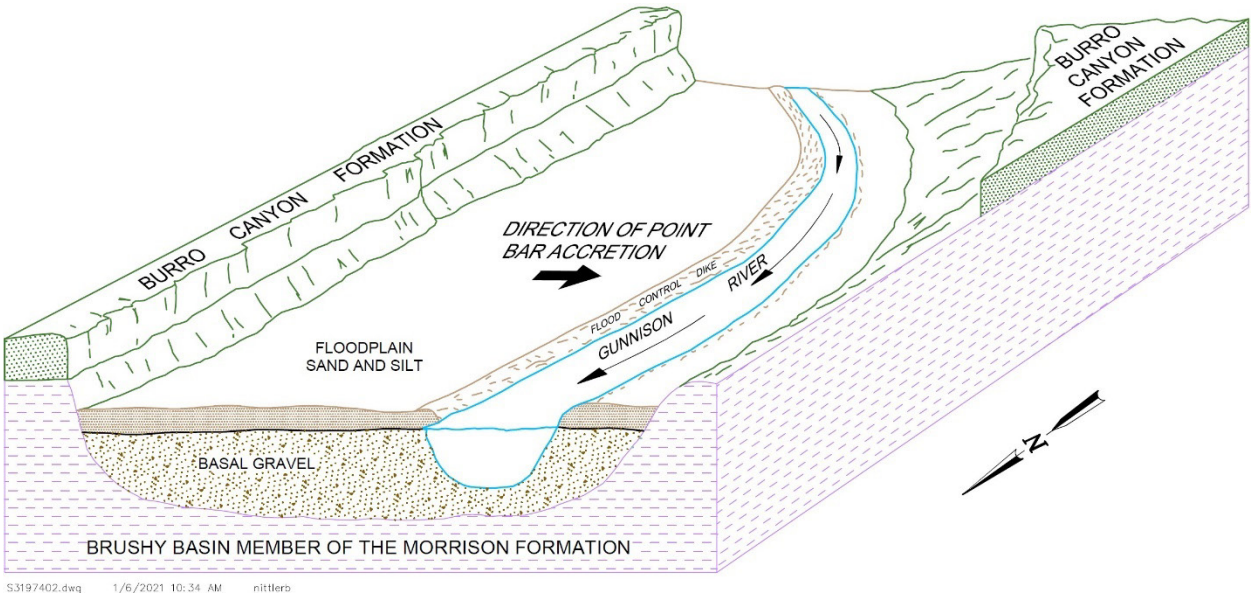



*Figure 2. Geological Cross Section of the Grand Valley Region*




**Note:** The site sits on the floodplain between the Burro Canyon Formation and the Gunnison River.

*Figure 3. Block Diagram of the Hydrologic System at the Site*

Aquifer pumping tests indicate that the alluvial aquifer has a hydraulic conductivity of approximately 40 ft per day and specific yield values of approximately 0.05 over a saturated thickness of 14 ft. Groundwater elevations obtained from water-level measurements indicate that the general gradient is from south to north (DOE 1989a).

The aquifer was modeled during preparation of the Remedial Investigation/Feasibility Study (RI/FS) (DOE 1989a). Field observations indicated that a depositional model adequately represents the aquifer. The basal sands and gravels were deposited as the Gunnison River migrated from east to west (Figure 3). This process resulted in erosion of older alluvial sediments to the west and deposition of newer sediments behind the river channel. The migration process

resulted in a laterally consistent layer of imbricated gravel, sand, and silt. Periodic overbank flooding resulted in deposition of finer sediments on top of the coarser channel fill deposits (Figure 3). The confining canyon walls caused swift flows, resulting in generally coarse, high-energy deposits of basal gravel.

The groundwater flow regime, as defined through observation and modeling, was used to predict contaminant fate and transport (DOE 1989a). The water level in the alluvial aquifer responds to the water level in the Gunnison River. River water levels fluctuate seasonally, reaching their highest levels in late spring as mountain snowmelt in the upper watersheds feeds the river. Flow rates are lowest in late winter. This annual fluctuation results in a regular surging of groundwater through the alluvial aquifer. As water levels rise in the spring, groundwater levels increase at the north and west aquifer boundaries and move perpendicular to the river channel toward the center of the aquifer. As water levels in the river subside in the late summer, site groundwater flow direction reverses and groundwater discharges to the river. Groundwater flow is generally northward during normal flow periods. Site drainage causes precipitation to flow into the South Pond and the North Pond, resulting in minor aquifer recharge (DOE 1989a). Water in the ponds is contaminated, and use of water from the ponds is restricted by institutional controls (ICs) (Section 2.4). The Gunnison River is not impacted by groundwater discharge (Section 2.3). River water is withdrawn and used for irrigation approximately 1 mile upstream of the site.

### 2.1.4 Climate and Vegetation

The climate at the site is semiarid with an annual average precipitation of 8.74 inches of precipitation measured at the Grand Junction Regional Airport. Precipitation is characterized by brief, sometimes heavy summer thunderstorms and light winter snowfalls. Temperatures range from average highs of 93 °F in July to average lows of 16 °F in January (Colorado Climate Center 2025).

Almost the entire site has been disturbed by remedial actions, building construction, or historical agricultural and gravel extraction activities. Approximately 23.6 acres of the 61.14-acre site have been landscaped or are covered with gravel or asphalt. The areas without landscaping have been revegetated with native and adapted species.

Riparian, wetland, and semiarid grassland plant ecology zones are present at the site. The riparian areas support saltcedar, cottonwood trees, silver buffaloberry, skunkbush sumac, Russian olive, Siberian elm, annual and perennial weeds, and several grasses. Plant species in wetland areas include saltcedar, cattail, willow, sedge, bulrush, common spikerush, and alkali grass. The semiarid grassland vegetation is dominated by crested wheatgrass, inland saltgrass, annual wheatgrass, cheatgrass, Indian ricegrass, blue grama, James' galleta, wildflowers, and annual and perennial weeds.

## 2.2 Site History

### 2.2.1 Operations History

The site was used for agriculture and gravel extraction before acquisition by the federal government. In 1943, the site was acquired by the U.S. War Department for use by the Manhattan Engineer District. A refinery was operated onsite from 1943 to 1946 to treat and

concentrate uranium oxide, a byproduct of vanadium production in the area. As much as 2,360,000 pounds (1070 metric tons) of uranium oxide and a comparable amount of vanadium oxide concentrate were produced and shipped offsite for further processing. Wastes from this refinery included dust losses, a few hundred tons of alumina cake, and liquid discharges (DOE 1987).

In late 1947, AEC established the Colorado Raw Materials Office onsite to manage the domestic uranium procurement program. Grand Junction also had an exploration office, but procurement and exploration functions were combined in 1952 within the AEC Grand Junction Operations Office. This office was responsible for receipt, sampling, and analysis of uranium and vanadium concentrates purchased from ore processing operations in the western United States.

A research program to test experimental uranium-ore milling techniques was initiated at the site in 1953. Operations were conducted in a small pilot mill from 1953 to 1954 near what is now Building 46 (Figure 4). In 1954, a larger pilot mill commenced operations on the southern end of the property. Milling operations ceased in 1958, after approximately 30,000 tons of ore had been processed (DOE 1987). Both pilot mills were demolished during remedial action. The pilot milling operations were the primary source of contaminated materials at the site. Other potential sources of contamination included former laboratory and vehicle maintenance activities and activities related to sampling and stockpiling uranium oxide concentrates.

AEC operated a uranium-concentrate sampling plant and assay laboratory onsite until 1974. Between 1948 and 1971, approximately 345,000,000 pounds of uranium oxide and 29,000,000 pounds of vanadium oxide passed through the site in steel drums. The remaining stockpile of vanadium and uranium was shipped offsite in 1967 and 1975, respectively (DOE 1987).

Surplus uranium ore, uranium mill tailings, and contaminated equipment were disposed of onsite. Historical data indicate that tailings and other waste from the pilot mills and sampling plant were disposed of west of the original pilot plant near Building 46 (Figure 4) and near the large mill buildings. Nonhazardous waste materials were buried in the landfill area northwest of Building 7 (Figure 4). The drains from the analytical laboratory discharged into the South Pond, and storm water runoff drained into the North Pond. An estimated 100,000 cubic yards (76,500 cubic meters) of tailings and contaminated soils were stabilized onsite, and another 300 cubic yards (230 cubic meters) of contaminated process equipment was buried at the site. Nearly 18 acres of the site was assessed as contaminated (Figure 4). Tailings slurries from the pilot mills and leaching of stockpiled and buried tailings resulted in groundwater contamination.

### 2.2.2 Remedial Action History

Programmatic responsibility for remediation of the site changed throughout the years as follows:

- **1984:** The site was accepted into the Surplus Facilities Management Program.
- **1988:** The site was transferred to the Decontamination and Decommissioning (D&D) Program.
- **1990:** Remediation authority and responsibility for the site was transferred to the DOE Office of Environmental Restoration.
- **2003:** The site was transferred to LM program for long-term surveillance.

Remedial investigations and groundwater characterization studies formally commenced in 1984 when the site was accepted into the Surplus Facilities Management Program. Site surveys for radiological contamination of soils and buildings were conducted in 1985 (DOE 1986). With the passage of the Superfund Amendments and Reauthorization Act in 1986 and the subsequent implementation of Executive Order (EO) 12580, *Superfund Implementation*, the site was evaluated in accordance with CERCLA. Although the resulting Hazard Ranking System score was below the value required for inclusion on the National Priorities List, remediation of the site followed the CERCLA process, which resulted in an RI/FS (DOE 1989a) and ROD (DOE 1989b). A Finding of No Significant Impact was issued by DOE in 1990 (DOE 1990), which concluded that the proposed remedial action was adequately addressed in the RI/FS and that there was no need to prepare a National Environmental Policy Act environmental impact statement. The program to remediate the site was referred to as the Grand Junction Projects Office Remedial Action Program.

The selected remedial action alternative specified in the ROD for surface contamination was removal of contaminated soils and building debris and codisposal with RRM from Grand Junction-area UMTRCA Title I activities (DOE 1989b). Remediation of assessed contamination in exterior land areas was completed in 1994 (DOE 1995a), and remediation of contamination under site buildings was deferred. DOE proposed to defer remediation of affected portions of Buildings 12 and 20 (Figure 4) (DOE 2001a) and formally deferred remediation in an agreement with CDPHE (CDPHE 2001). LM concluded operations in the onsite laboratory (Building 20) in December 2003, and demolition of the building and remediation of underlying contaminated materials occurred in 2006 (DOE 2006). Demolition of a portion of Building 12 and associated remediation of the concrete slab and soil beneath the building were completed in 2014 (DOE 2015), which completed remediation of all surface contamination at the site.

The selected remedial action alternative for groundwater specified in the ROD was natural flushing of the alluvial aquifer. Site groundwater was characterized and modeled in the CERCLA-compliant RI/FS (DOE 1989a). Modeling results indicated that the groundwater will flush clean of conservative contaminants (those that move with groundwater flow velocities) in 50 to 80 years (DOE 1989a) with the assumption that no continuing contaminant sources remained in the unsaturated zone. Although not a regulatory requirement (the site is not an UMTRCA site), the flushing time is within the 100-year compliance period specified in 40 CFR 192. The compliance period for groundwater remediation began with the removal of the majority of the contaminated soil in 1994 (DOE 1989b).


*Figure 4. Former Soil Contamination Areas at the Site*

## 2.3 Final Site Conditions

### 2.3.1 Structures and Land

Buildings remaining at the site have been radiologically surveyed and are free of contamination, with the exception of Building 2 (Figure 4). Minor quantities of uranium oxide remain within the building; however, these materials were deregulated and the building released for unrestricted use because the materials pose no risk to occupants, the public, or the environment (DOE 1997). This determination complies with DOE policy to keep exposures as low as reasonably achievable.

Asbestos materials remain onsite and are the responsibility of RTC (DOE 2001a). Nonfriable asbestos has been identified in some buildings and occurs in floor tiles and adhesive associated with the tiles. Friable asbestos occurs in ceiling textures, around pipe insulation, in abandoned steam lines, and in soils around the abandoned steam lines (DOE 1995c; DOE 2001a). Polychlorinated biphenyls have been identified in fluorescent light ballasts (DOE 1995b) and are the responsibility of RTC.

A decommissioned 300-foot-deep, cased well containing radium foil that was used for calibrating downhole logging instruments remains onsite. A plaque installed over the well describes the level of radioactivity of the radium foil and includes a warning to not disturb the well without contacting CDPHE. Although it has been decommissioned and its use has been discontinued, LM does not plan to remove or remediate the structure as it does not pose a risk to human health or the environment.

Exterior land areas (onsite but outside of building footprints) and soils beneath buildings have been remediated and comply with applicable radiological cleanup standards (DOE 1995a). Exterior land areas have been released for unrestricted use. However, with cleanup to radiological standards, remaining contaminant concentrations in site soils and sediment are not equivalent to background concentrations (see Section 4.5 in DOE 2002a based on DOE 2002b). Of the analytes found in concentrations elevated above background, uranium is the only one that has regulatory constraints (DOE 2002a). More recent sediment sampling confirmed some areas and depths with residual uranium concentrations above background that can potentially contribute to long-term elevated uranium concentrations in groundwater (DOE 2018). These residual sources were not considered in prior modeling of natural flushing time frames for uranium (DOE 1989a). This changed condition is addressed in the sediment monitoring in Section 3.6.2.

Numerous groundwater monitoring wells have been installed at the site for site characterization, long-term monitoring, and scientific studies. From 1979 to 1987, 68 monitoring wells were installed on and adjacent to the site. The majority of these wells were abandoned in 2000, leaving six remaining onsite (DOE 2002a). Two new wells were installed in 2001 to monitor potential impacts from soil contamination left in place beneath Building 20 (DOE 2005), and an additional 20 monitoring wells (Figure 5) were installed in 2018 for scientific tracer-test studies by the Applied Studies and Technology (AS&T) group to assess plume persistence in alluvial aquifers. There are 28 monitoring wells onsite.

*Figure 5. AS&T Monitoring Well Gallery*

### 2.3.2 Groundwater and Surface Water

The compliance strategy to meet the State of Colorado groundwater protection standards is natural flushing in conjunction with continued monitoring and IC implementation. Groundwater flow and transport modeling predicted that cleanup of groundwater in the uppermost (alluvial) aquifer will occur within a 50- to 80-year time frame (DOE 1989b). This strategy is described in the ROD (DOE 1989b) and evaluated in the *2021 Evaluation of the Groundwater Monitoring Program at the Grand Junction, Colorado, Site* (DOE 2021a).

Site groundwater was contaminated by the mill tailings slurry during milling operations and leaching of uranium mill tailings piles before the tailings were removed from the property. Historically, contaminants exceeding federal or State of Colorado standards included nitrate, total dissolved solids, arsenic, molybdenum, radium-226 + radium-228, selenium, gross alpha, and uranium (DOE 1989a). In 2024, groundwater concentrations of manganese and sulfate concentrations exceeded the maximum background concentrations in some wells, and uranium concentrations exceeded the State of Colorado groundwater standard (5 CCR 1002-41) in all wells in the monitoring network (Table 3), which indicates the impacts to groundwater from milling activities remain. However, the comparison of historical maximum concentrations to 2024 concentrations in monitoring wells shown in Table 3 indicates natural flushing processes have been effective in reducing contaminant concentrations in the alluvial aquifer.

*Table 3. Summary of Historical and 2024 Monitoring Results*

| Location | Analyte[a] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Manganese | | Molybdenum | | Selenium | | Sulfate | | Uranium | |
| | Historical Maximum | 2024 Result | Historical Maximum | 2024 Result | Historical Maximum | 2024 Result | Historical Maximum | 2024 Result | Historical Maximum | 2024 Result |
| **Groundwater[a]** | | | | | | | | | | |
| 10-19N | 10 | 0.165 | 0.541 | 0.016 | 0.03 | 0.00499 | 5710 | 2120 | 1.43 | 0.351 |
| 11-1S | 2.4 | 0.135 | 0.552 | 0.00853 | 0.0504 | <0.0015 | 2800 | 240 | 2.2 | 0.0409 |
| 14-13NA | 6.24 | 4.48 | 0.57 | 0.0998 | 0.0572 | <0.0015 | 2270 | 1670 | 1.7 | 0.228 |
| 6-2N | 1.9 | 0.584 | 0.15 | 0.0464 | 0.14 | 0.0308 | 1480 | 903 | 1.1 | 0.128 |
| 8-4S | 3.28 | 1.99 | 2.65 | 0.0631 | 0.685 | <0.0015 | 2200 | 767 | 4.8 | 0.365 |
| GJ01-01 | 0.71 | 0.405 | 0.162 | 0.0906 | 0.0634 | 0.00975 | 762 | 619 | 0.507 | 0.293 |
| GJ84-04 | 4.8 | 4.71 | 0.413 | 0.0669 | 0.015 | <0.0015 | 3100 | 1560 | 1.5 | 0.254 |
| **Surface Water[b]** | | | | | | | | | | |
| North Pond | | | 0.134 | 0.0265 | 0.015 | 0.00179 | 7300 | 1840 | 0.993 | 0.646 |
| South Pond | | | 1.39 | 0.0382 | 0.064 | <0.0015 | 5060 | 1400 | 0.56 | 0.21 |
| Wetland Area | | | 8.9 | — | 0.0231 | — | 45,200 | — | 47 | — |
| Upper Gunnison | | | 0.09 | 0.00239 | 0.015 | 0.00309 | 513 | 236 | 0.012 | 0.00547 |
| Upper Mid Gunnison | | | 0.031 | 0.00218 | 0.016 | 0.00281 | 511 | 232 | 0.013 | 0.00515 |
| Lower Gunnison | | | 0.05 | 0.0031 | 0.017 | 0.0028 | 541 | 292 | 0.034 | 0.0106 |

**Notes:**
Historical maximums are from 1984 to 2024. All units are in milligrams per liter (mg/L). A < indicates the analyte was below the detection limit.
— Indicates no data because a sample was not collected.
[a] Results in red exceed standards from "The Basic Standards for Groundwater" in Volume 5 *Code of Colorado Regulations* Section 1002-41 (5 CCR 1002-41) or background (for manganese and sulfate). The standards are molybdenum, 0.21 mg/L; selenium, 0.05 mg/L; and uranium, 0.03 mg/L. Background concentrations of manganese (0.72 mg/L) and sulfate (1150 mg/L) are the maximum concentrations observed in upgradient monitoring wells GJ84-09 and GJ84-10.
[b] For the pond locations (North Pond, South Pond, and Wetland Area), results in red exceed the groundwater benchmarks listed above. For the Gunnison River locations, results in red exceed the standards from 5 CCR 1002-35, "Classifications and Numeric Standards for Gunnison and Lower Dolores River Basins." The standards are molybdenum, 0.16 mg/L; selenium, 0.0046 mg/L; and uranium, 0.03 mg/L.

Surface water exists at the site in the North Pond, South Pond, wetlands, and adjacent Gunnison River. These bodies are monitored regularly for comparison to Colorado surface water quality standards. Site surface water is in direct hydraulic contact with site groundwater, and the three bodies of water within the site boundary exhibit contaminant levels that reflect groundwater contamination. Monitoring Gunnison River water serves the additional purpose of determining if groundwater flushing is adversely affecting river water quality. Table 3 shows that onsite ponds continue to be affected by groundwater contamination, and the Gunnison River was not affected by site contaminants in 2024. Surface water in the North Pond and South Pond exceeded State of Colorado groundwater benchmarks in 2024 for sulfate and uranium.

Monitoring data for the site are archived in the environmental database at the LM Field Support Center (LMFSC) at Grand Junction, Colorado. Monitoring data also are available for viewing with dynamic mapping via the Geospatial Environmental Mapping System (GEMS) website at https://gems.lm.doe.gov/#&site=GJO.

## 2.4 Institutional Controls

Site groundwater and surface water contain contaminants in concentrations exceeding regulatory limits. ICs have been established as part of the remedy to prevent use of and exposure to contaminated water. ICs refer to nonengineering measures—usually, but not always, legal controls—that are designed to prevent or limit exposure to hazardous substances left in place or to assure effectiveness of the remedy (EPA 2004).

ICs that have been applied to the site include:

- Restrictions on the use of groundwater, surface water, and consumption of aquatic life in the ponds and wetlands areas (DOE 2001a).
- Controls to prevent disturbing the well that contains radium foil.
- Warning signs around the surface water locations (North Pond, South Pond, and wetlands) that indicate the water is contaminated and not safe for human consumption.

The controls and obligations of involved parties are defined in the Quitclaim Deed (DOE 2001c) and enforceable agreement between DOE and CDPHE (CDPHE 2001) recorded in Mesa County. These controls will survive subsequent property transfers and will be monitored by LM and enforced by CDPHE through CERCLA authorities, as specified in the Quitclaim Deed and enforceable agreement (see Section 3.7 and Appendix A of this document).

The following ICs were included in the legal documents conveying a portion of the site to RTC. Only applicable portions of the legal documents are listed below. ICs involving Building 12 and Building 20 are not included because those buildings have been removed and the soil beneath them has been remediated. In the descriptions below, taken verbatim from the Quitclaim Deed (DOE 2001c), LM is designated as the grantor, and RTC is designated as the grantee.

> *Contamination in Ground Water and Surface Expressions of Ground Water*
>
> *Contamination:* The ground water underlying the site and the surface expressions of the ground water (the North Pond, South Pond, and Wetlands areas) are known by both parties to be contaminated with elevated levels of certain constituents resulting from the historical stockpiling of uranium ore and the disposal of process

wastes from milling and concentrating activities. Following removal of the source of contamination, the accepted remedial action for eliminating the contamination is the natural flushing of the ground water over a period of 50 to 80 years (anticipate being within regulatory standards between the years 2050 and 2080). Risk assessments performed concluded that the contaminants posed a threat to human health only if ingested by drinking the water [DOE 2001a].

*Restriction:* Grantee shall not engage in any disturbance or use of any untreated ground water underlying the Property, including the drilling of wells, the excavation of soils that expose ground water, or the diversion of ground water through any means without express written consent of the State of Colorado Department of Public Health and Environment (CDPHE) and the Grantor, its successors, or assigns. This also includes, but is not limited to, restrictions on excavation of the underlying soils for their gravel content. Any request for consent to disturb or use any untreated ground water underlying the Property must include water quality data and a human health and ecological risk evaluation.

Grantor will construct signs at the South Pond, North Pond, and Wetlands area to notify the public that no swimming, fishing, or drinking of the waters is permitted. Grantee and successors must maintain the signs until the State of Colorado approves the removal of the notification signs. Grantor will continue to monitor the water quality of the ponds and, when the water quality meets State standards, request the State to approve removal of the notification signs.

Grantee shall not engage in any use of the surface expressions of ground water that might result in accidental consumption of the water, fish, or other aquatic species. This includes, but is not limited to, restrictions on fishing, swimming, activities that result in prolonged human contact with the water, hatchery operations for production of fish or other aquatic species for human consumption, and other recreational uses.

*Foil Sources in Abandoned Well*

*Contamination:* Grantee acknowledges that there is known contamination in the form of two foil radium sources encased in an abandoned well at the site. […] The well was abandoned in accordance with State of Colorado requirements and the sources were encased in the well with the approval of the state.

*Restrictions:* Grantee shall not engage in any activity that disturbs the seal on the well encasement or the well itself without the express written consent of CDPHE and the Grantor.

*Enforceable Agreement*

Grantor has entered into an enforceable agreement with CDPHE in accordance with State of Colorado Executive Order D.013.98 and CERCLA 120(h). The agreement establishes the Grantor's clean-up plans for the above (with the exception of C.4 [the well with radium foil sources]), reiterates the land use controls placed upon the Grantee and successors, specifies the monitoring of contaminated areas by the Grantor, and provides a funding mechanism for the Grantor to reimburse CDPHE for oversight activities.

*Grantee's Responsibilities*

Grantee is responsible for assuring that the restrictions and Grantor's rights of access related to the above and stated in this Agreement and in the Deed are stated in the instrument of conveyance if Grantee passes ownership to another entity. Grantee is responsible for notifying Grantor's Long-Term Surveillance and Maintenance Program of such transfer. Grantee acknowledges its landlord responsibilities to monitor tenants' activities […] to protect the abandoned well identified above, and to be protective of Grantee's remaining ground water monitoring wells.

Grantee acknowledges that planned use of the Property is for a mixture of commercial, industrial, office space, and open space, as stated in Grantee's reuse plan. Grantee's planned use is not restricted except as herein noted.

## 2.5 Specific Site-Surveillance Features

Monitoring wells, surface water warning signs, a warning plaque, and a survey monument comprise the specific site surveillance features at the site. These features are shown on Figure 6.

### 2.5.1 Monitoring Wells

There are 28 monitoring wells on the site (Figure 6). All wells are completed in the alluvial aquifer. Construction details and lithologic logs for the wells are archived in the site records. The long-term monitoring network comprises seven of these wells. Monitoring locations, sampling frequency, and analytes for the long-term monitoring program are summarized in Section 3.6.

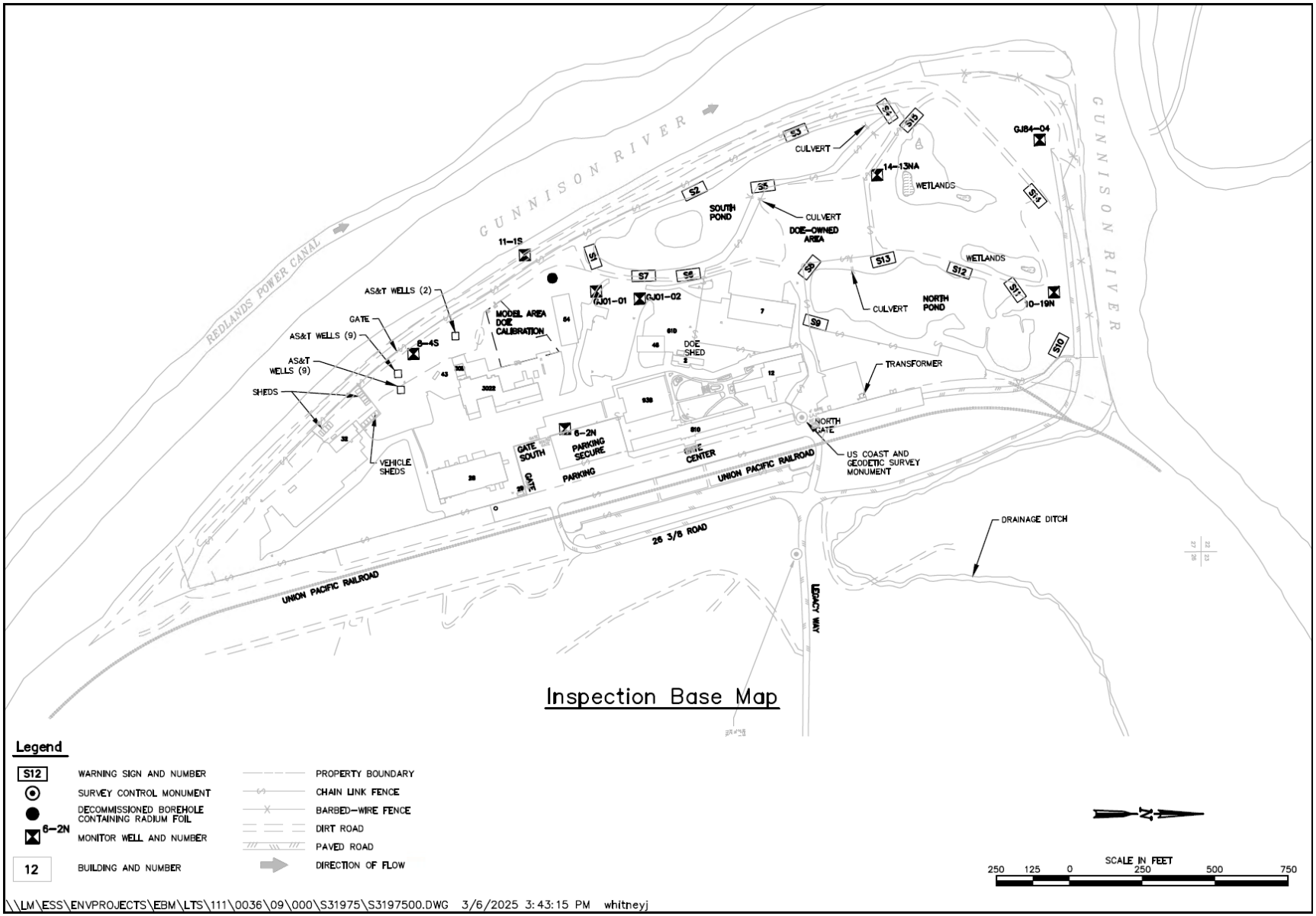



*Figure 6. Site Base Map*

### 2.5.2 Surface Water Warning Signs

LM has installed and will maintain surface water warning signs (S1 through S15 in Figure 6) around the South Pond, North Pond, and wetlands areas. These signs inform the public that surface waters are contaminated and that swimming in, taking fish from, extracting, and drinking the surface waters are prohibited. These signs will be inspected until processing-related contaminants have flushed out of surface waters, and CDPHE concurs that surface waters are safe for unrestricted use. Warning signs list the 24-hour telephone number and LM website address, as shown in Figure 7.


*Figure 7. Surface Water Warning Sign*

### 2.5.3 Monument for Decommissioned Well

A ground-level monument was installed over the decommissioned well that contains the radium foil (Figure 8). The monument has a metal plaque that contains information about the radium foil remaining in the well and a warning to not disturb the well without contacting CDPHE. The monument for the decommissioned well will be inspected during each site inspection and maintained as needed.


*Figure 8. Monument Marking the Decommissioned Well Containing Radium Foil*

### 2.5.4 Survey Monument

A U.S. Coast and Geodetic survey monument is at the site and is used for survey control at the site (Figure 9). The survey monument will be inspected during each site inspection and maintain it as needed.

*Figure 9. Site Survey Monument*

# 3.0 Long-Term Surveillance and Maintenance Program

## 3.1 Long-Term Surveillance and Maintenance Overview

LM will conduct stewardship activities at the site to protect human health and the environment and to comply with applicable regulations and DOE policy. LM owns and is responsible for the radium foil in the decommissioned well and the contaminants in groundwater, sediment, and surface water that remain at the site. CDPHE, as regulator, has authority to oversee LM's LTS&M activities at this site and will concur in changes to this LTS&M Plan. LM retains the right-of-entry to the site to conduct stewardship activities for the duration of these activities. This right is established in the Quitclaim Deed (DOE 2001c).

Groundwater and surface water at the site will be monitored to assess compliance with State of Colorado and federal regulations. Existing groundwater and surface water conditions are described in Section 2.3.2. The compliance strategy for site groundwater is presented in Section 3.6.1, along with details of the monitoring program.

ICs will be monitored and necessary action taken to ensure the effectiveness of those controls and that they are enforced. ICs in effect at the site are described in Section 2.4. Specific LTS&M requirements are presented in Table 4.

*Table 4. Long-Term Stewardship Requirements*

| Requirement | Section |
|---|---|
| Routine site inspections | 3.2 |
| Routine inspection reports | 3.3 |
| Follow-up inspections and inspection reports, as necessary | 3.4 |
| Routine site maintenance, as necessary | 3.5 |
| Emergency measures | 3.5 |
| Environmental monitoring | 3.6 |
| ICs monitoring | 3.7 |
| Regulatory compliance monitoring | 3.8 |

## 3.2 Routine Site Inspections

### 3.2.1 Frequency of Inspections

The site will be inspected annually to confirm that ICs remain effective and to determine if maintenance or monitoring is needed. Site inspection activities will follow the work controls specified in the *Integrated Work Control Process Manual* (DOE 2024b).

The date of the inspection is typically in late winter to enable better visibility (less foliage) for the inspectors. Variation in this inspection frequency will be explained in the inspection report. CDPHE and the site owner will be notified of the inspection at least 30 days before the scheduled inspection date. The landlord, facilities, and security personnel will be notified the week prior to the inspection and documented on the *Landowner/Stakeholder Notification Form* (LMS 1013).

### 3.2.2 Inspection Procedure

For the purposes of inspection, the site will be divided into sections called transects. Each transect will be inspected individually. Transects for the site inspection are presented in Table 5.

*Table 5. Transects Used During Inspection of the Site*

| Transect | Description |
|---|---|
| Site interior | Includes the South Pond, North Pond, wetland areas, monitoring wells, survey monument, and radium foil well |
| Areas beyond site boundary | Includes outlying areas up to 0.25 mile beyond the site |

The site interior transect will be inspected for evidence of groundwater and surface water use, such as unauthorized use of water from monitoring wells or onsite ponds. Within each transect, the condition of specific site-surveillance features (Section 2.5), such as warning signs and monitoring wells, will be inspected for change, deterioration, and other effects (e.g., vandalism). Inspectors will note changes to the area surrounding the site, especially within 0.25 mile of the site perimeter. Significant changes within this area could include development or expansion of gravel extraction, human habitation, erosion, or road building.

Selected site surveillance features and observations made during the inspection will be documented with photographs. Observations may include evidence of vandalism or water use. Photographs will be documented on the *Site Inspection Photo Log* form (LMS 2172). If using Field Maps, the photo locations will automatically be updated.

### 3.2.3 Inspection Checklist

The inspection is guided by an inspection checklist. An example of the site-specific inspection checklist for the site is presented in Appendix B. The inspection checklist addresses preparation for and performance of the inspection. Inspectors also will have a drafted site inspection map from the previous inspection. The inspection map is the site base map that graphically depicts the locations of noted observations from previous inspections. It is used to record field notes, photograph locations, and other annotations of inspection findings; it becomes a part of the permanent site record. Field Maps may be used to collect data and photographs in lieu of recording information on the paper inspection map. If Field Maps is used, data and photographs will be collected according to the *Mobile Mapping Applications (MMAPPS) Procedure* (DOE 2024c).

The checklist is reviewed and revised as necessary before each routine inspection. At the conclusion of a routine site inspection, inspectors will note revisions to the checklist in anticipation of the next routine site inspection. Revisions to the checklist may include inspection instructions addressing new discoveries or changes in site conditions.

### 3.2.4 Personnel

Typically, annual inspections will be performed by two inspectors who are experienced engineers or scientists with the required knowledge, skills, and abilities to evaluate site conditions and recognize imminent or actual problems. Inspectors will be assigned to a given inspection at the site based on site conditions and inspector expertise. Areas of expertise may include civil, geotechnical, and geological engineering; geology; hydrology; biology; and environmental science (e.g., ecology, soils, or range management). If conditions warrant, more than two inspectors may be assigned to the inspection to evaluate serious or unusual problems and make appropriate recommendations.

## 3.3 Routine Inspection Reports

Results of routine site inspections and monitoring will be reported to LM management, CDPHE, and RTC in an annual inspection and monitoring report.

## 3.4 Follow-Up Inspections

Follow-up inspections are unscheduled inspections that are conducted in response to threatening or unusual site conditions. Criteria, personnel, and reporting for follow-up inspections are detailed in the following sections.

### 3.4.1 Criteria

Criteria for follow-up inspections of the site are adopted from 10 CFR 40.28 (b)(4). Follow-up inspections will be conducted if either of the following occurs:

1. A condition is identified during the routine site inspection or other site visit that requires personnel with specific expertise to evaluate the condition
2. LM is notified by a citizen; employee; or federal, state, or local agency that conditions at the site are substantially changed

Once a condition or concern is identified at the site, the information will be evaluated and a decision of whether to respond with a follow-up inspection will be made.

Specific conditions that may necessitate a follow-up inspection include intrusion, violation of ICs, vandalism, or the need to revisit the site to evaluate, define, or conduct maintenance tasks. Conditions that may require a more immediate follow-up inspection include extreme weather or seismic events and disclosure of deliberate human activity that threatens the integrity of ICs. LM will act responsibly but will exercise flexibility and evaluate risk when scheduling follow-up inspections. Urgency of the follow-up inspection will be in proportion to the seriousness of the condition.

If an incident or activity threatens or compromises ICs or poses a risk of exposure to or release of known contaminants, LM may, as appropriate, notify CDPHE, respond with an immediate follow-up inspection, or begin emergency measures (Section 3.5.2) to contain or prevent dispersion of hazardous materials from the site. At any time, the inspector may request the assistance of local authorities to confirm the seriousness of a condition at the site before scheduling a follow-up inspection or initiating other action.

Protocols and infrastructure are in place that provide notification to LM of events that could threaten the control of site contamination or the integrity of site surveillance features. The Mesa County Sheriff's Department in Grand Junction will notify LM in the event its staff observes human intrusion at the site. LM also subscribes to the U.S. Geological Survey National Earthquake Information Center to receive notification when an earthquake is of sufficient magnitude near the site (3.0 or greater magnitude [Richter Scale] within 20 miles and 5.0 or greater magnitude within 70 miles). This service provides email notification with data on the magnitude of the event and the location of the epicenter.

To facilitate LM notification and to address citizen concerns, warning signs posted near contaminated surface waters display a 24-hour telephone number (970-248-6070). The public may use the 24-hour number to request information about the site or advise LM of problems at the site. Follow-up inspections may be conducted in response to information provided by the public.

### 3.4.2 Personnel

Inspectors assigned to follow-up inspections will be selected on the same basis as for routine site inspections (Section 3.2.4).

### 3.4.3 Reports of Follow-Up Inspections

Results of follow-up inspections will be included in the annual inspection report that follows the inspection (Section 3.3). Separate reports will not be prepared unless LM determines it advisable to notify CDPHE or another outside agency of a problem at the site.

If follow-up inspections are required for more serious or emergency reasons, LM will submit to CDPHE a preliminary report of the follow-up inspection within 60 days.

## 3.5 Routine Site Maintenance and Emergency Measures

### 3.5.1 Routine Site Maintenance

Site access controls will be maintained at the site as part of LM operations. Required well maintenance and well abandonment will be conducted as needed. Other maintenance tasks will include warning sign maintenance and replacement and maintenance of the monument marking the decommissioned well that contains radium foil.

### 3.5.2 Emergency Measures

Emergency measures are the actions LM will take in response to an incident that may result in exposure to or release of known contamination for which LM is responsible.

### 3.5.3 Criteria for Routine Site Maintenance and Emergency Measures

Criteria for triggering a given LM response for each progressively more serious level of intervention are not easily defined because the nature and scale of all potential problems cannot be foreseen. The difference between routine maintenance and emergency responses is primarily one of urgency and degree of threat or risk.

### 3.5.4 Reporting Maintenance and Emergency Measures

Routine maintenance completed during the previous 12 months will be summarized in the next routine inspection and monitoring report. Although the probability of such an occurrence is low, CDPHE will be notified within 4 hours of discovery of any potential or actual exposure to or release of regulated hazardous materials as an emergency measure. In addition, the Watch Office will be contacted at 303-404-6100 to report an emergency.

## 3.6 Environmental Monitoring

Environmental monitoring results will be reported annually in the inspection and monitoring report. An evaluation of the environmental monitoring program will be conducted every 5 years. The results of the evaluation will be documented in a report that includes a presentation of monitoring data and an evaluation of the progress of natural flushing of the alluvial aquifer. These evaluations form the basis for the current monitoring program specified in this LTS&M Plan. Reports documenting the evaluation of the environmental monitoring program were produced in 2011, 2016, and 2021 (DOE 2011; DOE 2016; DOE 2021a), and the next 5-year evaluation will be conducted in 2026. The results and recommendations from this evaluation will be documented in a report that will be submitted to CDPHE for review. If CDPHE approves of recommended changes in the monitoring program, those changes will be documented in an update to this LTS&M Plan.

### 3.6.1 Groundwater and Surface Water Monitoring

The current monitoring program includes annually sampling seven monitoring wells and six surface water locations (Figure 10). Samples are collected according to procedures specified in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (DOE 2024e). Environmental monitoring activities follow the work controls specified in the *Integrated Work Control Process Manual*.

Groundwater and surface water monitoring are conducted in winter for consistency when water levels and river flows are seasonally low. The groundwater monitoring network consists of seven monitoring wells (8-4S, 11-1S, 6-2N, 14-13NA, GJ84-04, 10-19N, and GJ01-01) that are distributed onsite and along the downgradient edges of the facility near the Gunnison River (Figure 10). Groundwater levels are measured in each sampled well. Some existing monitoring wells at the site are not included in the monitoring network, including GJ01-02 and the AS&T wells (Figure 6). The surface water monitoring network consists of the onsite ponds (North Pond, South Pond, and the Wetland Area) and three locations on the Gunnison River (Upper Gunnison, Upper Mid Gunnison, and Lower Gunnison), as shown on Figure 10.

Based on a consideration of groundwater standards and potential human health and ecological risk (DOE 2001a), subsequent evaluations of the monitoring program (DOE 2011; DOE 2016; DOE 2021a), and CDPHE input, analytes for the monitoring program are manganese (groundwater only), molybdenum, selenium, sulfate, and uranium. In addition to these analytes, water quality indicators of pH, total alkalinity, conductivity, temperature, and turbidity are measured during each sampling event.


*Figure 10. Groundwater and Surface Water Monitoring Locations*

Every 5 years the monitoring program has been evaluated, and the evaluation monitoring results in consultation with CDPHE will continue to determine requirements for future monitoring at the site. The evaluation includes a statistical analysis of contaminant concentration trends. Criteria for modifying or terminating groundwater and surface water monitoring include (1) continued decrease in concentrations of constituents of concern as predicted and observed, (2) compliance with regulatory limits, and (3) no unacceptable risks to human health and the environment resulting from site-related contamination (CDPHE 2001). If all three criteria are *not* met, then monitoring will continue. LM must receive approval from CDPHE before modifying or terminating monitoring (CDPHE 2001).

### 3.6.2 Sediment Monitoring

Sediment was collected from the ponds and wetland areas in 2001 and analyzed for several constituents (DOE 2001b; DOE 2002a; DOE 2002b). The results showed that some site-related contamination may be present in the sediments at concentrations higher than background. Concentrations at some locations exceed sediment quality benchmarks. However, this does not mean that humans or the environment are adversely affected. The dataset provides a baseline to determine if sediments are accumulating site-related contaminants as natural flushing proceeds. Once groundwater remediation is determined to be completed, additional sediment sampling will be conducted to evaluate residual site risks.

## 3.7 ICs Monitoring

As described previously, ICs have been applied to the site to prevent inadvertent exposure to contaminated media. These controls are as follows:

**Groundwater and Surface Water:** To prevent exposure to contaminated groundwater and surface water, notification will be made to the RTC and future owners through deed restrictions and the annual inspection and monitoring report of water quality and of prohibitions against water use and will maintain warning signs around the ponds and wetlands areas. The site will be inspected annually to look for unauthorized use of groundwater and surface water and for excavation activities that may expose contaminated groundwater.

Controls prohibiting use of site groundwater and surface water will remain in effect until water quality complies with regulatory limits; these controls will survive any subsequent property transfers.

**Decommissioned Well Containing Radium Foil:** To ensure that the radium foil remains sealed and isolated, notification to RTC and future owners will be made through deed restrictions and the annual inspection and monitoring report of the presence and condition of the decommissioned well and of prohibitions against causing subsurface disturbances in the area. A monument (Figure 8) at the ground surface above the decommissioned well will be maintained. Controls prohibiting disturbance of the radium foil in the sealed well will remain in effect in perpetuity.

**Warning Signs Around Surface Water:** The site will be inspected annually to ensure warning signs are in place, legible, and undamaged. Inspection of the signs will continue until processing-related contaminants have flushed out of surface waters and CDPHE concurs that surface waters are safe for unrestricted use.

## 3.8 Regulatory Compliance Monitoring

The routine site inspection will demonstrate that LM remains in compliance with regulations governing LTS&M activities at the site. Those regulations are specified in Section 1.2.

An evaluation of regulatory compliance may be required at other times, as well, in response to unusual or nonroutine occurrences. The results of this monitoring will be presented in the routine inspection report. Instances of noncompliance will be reported to regulators in accordance with the procedures set forth in Section 3.5.4.

## 3.9 Site Drawings and Photographs

At the completion of remedial action, site conditions were documented with as-built drawings and maps. Aerial photographs of the site are taken regularly. These documents are included in the site records.

### 3.9.1 Site Map

The site base map (Figure 6) is used for annual inspections and shows the approximate site property boundary, fences, structures, roads inside and near the property boundary, warning signs, monitoring wells, the monument for the decommissioned well, and survey control monument. Map data are maintained in a geographical information system database.

After each inspection, a new inspection map is prepared that shows the location of items of interest noted during previous inspections. Each site inspection map will indicate the year of the inspection and inspection purpose.

### 3.9.2 Site As-Built Drawings and Maps

As remediation progressed, as-built conditions at the site were documented in as-built drawings and maps. These drawings and maps are included in the final remediation reports (DOE 1995a; DOE 2006; DOE 2015), which are archived as records in Content Manager, which is the electronic records management system.

### 3.9.3 Site Photographs

Aerial photographs of the site (in black and white or color) have been taken numerous times during operation of the mills and during remediation. The photographs provide a continuous record for monitoring changing conditions (e.g., erosion, vegetation, and land use) over time and are preserved in the permanent site file. In addition, photographs taken during various phases of site remediation and a photographic record of final site conditions are maintained in Content Manager. These photographs provide a visual record to complement the as-built drawings and maps.

Specific site features displayed in this plan were photographed during inspections conducted in 2019 (Figure 8) and 2020 (Figure 6, Figure 7, and Figure 9) (DOE 2019; DOE 2020a). This initial set of photographs will serve as site baseline photographs going forward.

## 3.10 Records

Records are maintained to support postclosure site maintenance and preserve historical information for long-term stewardship. Site records contain critical information required to protect human health and the environment, manage land and assets, protect the legal interests of LM and the public, and mitigate community impacts resulting from the cleanup of legacy waste. Records are managed in accordance with the *Records and Information Management* policy (DOE 2021b) and the requirements specified in the *Records and Information Management Transition Guidance* (DOE 2017). Records will be managed electronically in the Content Manager records management system.

## 3.11 Quality Assurance

Activities related to the surveillance and maintenance of the site will comply with the requirements of the *Quality Assurance Manual* (DOE 2024d) and the LTSP Guidance Document (DOE 2012). Quality assurance requirements are routinely fulfilled by use of work controls, standard operating procedures, trained personnel, records management, and surveillance and assessment activities.

## 3.12 Health and Safety

Sampling and inspection activities will be conducted according to the safety and health procedures specified in the *LMS Safety and Health Program* (DOE 2023a). Specific hazards and controls associated with site inspections are covered in the *Conducting UMTRCA Annual Site Inspections* procedure (DOE 2024a). A safety meeting will be held prior to the inspection and documented on a *Pre-job Brief/Safety Meeting Attendance* form (LMS 1554). Specific hazards and controls associated with the annual groundwater and surface water sampling event are specified in the job safety analysis *Environmental Monitoring Operations at LM Sites* (JSA No. LMS-005) (current version). Daily safety meeting during will be held during sampling activities and documented in the EQuIS Data Gathering Engine software in a field computer.

# 4.0 References

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5 CCR 1002-41. "The Basic Standards for Ground Water," *Code of Colorado Regulations*, https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8819&fileName=5%20CCR%201002-41.

10 CFR 40. "Domestic Licensing of Source Material," *Code of Federal Regulations*.

40 CFR 192. U.S. Environmental Protection Agency, "Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings," *Code of Federal Regulations*.

42 USC 9620. "Federal Facilities," *United States Code*.

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# Appendix A

# Legal Documents

/ 00445

# Quitclaim Deed

DATE 10/10/01 TIME 4:
RECEPT 2019689
BOOK 2938 PAGE 15

**State of Colorado**

**County of Mesa**

$10.00

**Know All By These Presents:**

This Quitclaim Deed is made this the 19th day of SEPTEMBER 2001, by and between the United States of America, also referred to as the Government, acting by and through the Secretary of Energy (hereinafter sometimes called "Grantor"), under and pursuant to authority of the Atomic Energy Act of 1954, Section 161(g), 42 U.S.C. 2201(g), and rules, orders, and regulations issued pursuant thereto, and the Riverview Technology Corporation (RTC), a Colorado Corporation, 2591 B ¾ Road, Grand Junction, Colorado, 81503 (hereinafter sometimes called "Grantee").

## I. Conveyance of the Fee Estate

Grantor, for and in consideration of: (1) of the sum of Ten Dollars ($10.00) and other valuable consideration, duly paid by Grantee; and, (2) the specific agreements hereinafter made by Grantee, for itself and its successors and assigns, to abide by and take subject to all reservations, restrictions, covenants, exceptions, notifications, conditions and agreements hereinafter set forth in this Quitclaim Deed, does hereby convey, remise, release and forever quitclaim to the Grantee, its successors and assigns, under and subject to the reservations, restrictions, covenants, exceptions, notifications, conditions and agreements hereinafter set forth, all right and title in and to that certain property situate, lying, and being in Mesa County, State of Colorado, as described below (hereinafter referred to as the "Property"):

All that portion of Lot 1 lying West of the right-of-way of the Denver and Rio Grande Western Railroad Company, and all of lots 6 and 7, subject to right-of-way of the Denver and Rio Grande Western Railroad Company, all being in Section 27, Township 1 South, Range 1 West, Ute Meridian, Mesa County, Colorado, containing 55.71 acres of land more or less, together with the private railroad spur thereon, and all rights and appurtenance thereto, also all water and water rights used thereon or appurtenant thereto, including the private line from artesian well, and all rights in connection therewith, and all buildings and improvements thereon as recorded in Book 415, page 405;

And, that portion of G.L.O. Lot 1, Section 26, Township 1 South, Range 1 West, Ute Principal Meridian, Mesa County, Colorado, lying West of the right-of-way of the Denver and Rio Grande Western Railroad Company containing 1.14 acres of land more or less, as recorded in Book 668, page 202;

Except: Parcel 1, located in G.L.O. Lot 7 of Section 27, Township 1 South, Range 1 West, Ute Principal Meridian, Mesa County, Colorado, containing 2.68 acres of land more or less as conveyed to A. N. Applebaum and recorded in Book 1606, page 986; and

Except: That portion to be reserved to the United States and called the Army Reserve Tract: containing 7.97 acres more or less, further described in Exhibit A of the deed.

This parcel then contains 46.20 acres calculated as follows: 55.71 acres (1943 Deed in Book 415, page 405) plus 1.14 acres (Deed in Book 668, page 202) - minus - 2.68 acres (Deed in Book 1606, page 986) - minus - 7.97 acres (Army Reserve Tract to be retained by the United States when the transfer to the Grantee in this Deed is made) = 46.20 acres more or less. The legal description of this Property and the Army Reserve Tract are described in Exhibit A of the Deed.

All personal property not needed by the Grantor will be conveyed by a Bill of Sale. Contaminated analytical laboratory equipment will be retained by Grantor. Personal property conveyed to the Grantee shall not be subject to the Excess Profits Covenant of this Agreement.

**To Have And To Hold** the same, together with: (1) all water rights, if any, located within the boundaries of the Property; (2) all improvements, hereditaments, appurtenances therein and all reversions, remainders, issues, profits and other rights belonging or related thereto, either in law or in equity, for the use, benefit and behalf of the Grantee, its successors and assigns forever; and (3) all mineral rights and interest not previously conveyed of record.

## II. Definitions

A. "DOE" and/or "Grantor" means the United States Department of Energy and all predecessor agencies (e.g., the Atomic Energy Commission, the Nuclear Regulatory Commission and the Energy Research and Development Administration) and includes DOE officers, employees, and agents acting in their official capacity.

B. "RTC," "Grantee," and/or "Purchaser" means the nonprofit corporation, known as the Riverview Technology Corporation, incorporated in the State of Colorado, and its officers, directors, officials, employees, agents, tenants, appointees, contractors, heirs, successors, and assigns, as related to the Property.

C. "Site Substance(s)" specifically excludes any constituents identified as Grantee's responsibility in the Offer to Purchase and Acceptance Agreement. "Site Substance(s)" means:

1. Any petroleum, petroleum product oil, oil product, gasoline, or similar substance that has been stored on the Property at any time prior to transfer;

2. Any hazardous substance, as defined in CERCLA (42 USC 9601), Section 101(14);

3. Any hazardous waste, as defined in RCRA (42 USC 6903), Section 1004(5);

4. Any radioactive waste, including: (a) Solid or fluid materials of no value that contain radioactivity; discarded items such as clothing, containers, equipment,

rubble, residues, or soils contaminated with radioactivity; (b) Soils, rubble, equipment, or other items containing induced radioactivity such that the levels exceed safe limits for unconditional release; (c) Any waste that contains radioactive material in concentrations that exceed those listed in 10 CFR 20, Appendix B, Table 11, Column 2; and (d) Solid, liquid, or gaseous material that contain radionuclides regulated under the Atomic Energy Act of 1954, as amended, and of negligible economic value considering costs of recovery;

5. Uranium Mill Tailings Radiation Control Act (42 USC 7911, P.L. 95-604, 1978): Any of those materials defined in Section 101 (7) as "residual radioactive material (RRM)" or in Section 101 (8) as "tailings";

6. Toxic Substances Control Act (15 USC § 2601, ***et seq.)***:Any of the materials regulated therein, including PCBs as defined as "polychlorinated biphenyls" in 40 CFR Part 761; and

7. Federal Insecticide, Fungicide and Rodenticide Act (7 USC § 136, ***et seq.)***:Any of the materials defined as registered pesticides in Section 136 ("special nuclear material" (Section 2014(aa)).

**III.** General Government Reservations to Conveyance

This Quitclaim Deed covering the Property described above is expressly made subject to the following reservations in favor of Grantor, and its assigns:

(A) Save and Except and there is hereby reserved unto Grantor, and its assigns, all rights and interests that have been previously reserved to Grantor in any patent(s) covering the Property.

**IV.** CERCLA Covenant, Reservation, Agreements, and Use Restrictions

(A) Grantor herein provides to Grantee notice of previous history of hazardous substance(s) activity on the Property as Exhibit B which reflects the following information available to Grantor: (1) the type and quantity of hazardous substances that were known to have been released or disposed of or stored for one (1) year or more on the Property; (2) the time such storage, release or disposal took place; and (3) a description of remedial action taken as required under Section 120(h) of CERCLA and 42 U.S.C. § 9620(h)(3)(A)(i).

(B) Grantor warrants that all remedial action necessary to protect human health and the environment has been taken before the date of this conveyance, except as noted in Section IV(C) below, as required under 42 U.S.C. 9620(h)(3)(A)(ii)(I). For contamination that is not yet remediated and for which Grantor is potentially responsible, Grantor warrants that Grantor will comply with all of the provisions for deferral of the requirements in 42 U.S.C. § 9620(h)(3)(A)(ii)(I) as set forth in 42 U.S.C. § 9620(h)(3)(C). Accordingly, Grantor provides the "response action

assurances" required by 42 U.S.C. § 9620(h)(3)(C)(ii) as set forth in this Section IV (C), (D) and (E) below.

(C) Declaration of Contamination, Conditions, Restrictions on Use, and Grantor Commitment to Remediate Certain Areas.

1. Contamination in Ground Water and Surface Expressions of Ground Water

*Contamination:* The ground water underlying the Property and the surface expressions of the ground water (the North Pond, South Pond, and wetland areas) are known by both parties to be contaminated with elevated levels of certain constituents resulting from the historical stockpiling of uranium ore and the disposal of process wastes from milling and concentrating activities. Following removal of the source of contamination, the accepted remedial action for eliminating the contamination is the natural flushing of the ground water over a period of 50–80 years (anticipated to be within regulatory standards between the years 2050 and 2080). Risk assessments performed concluded that the Contaminants posed a threat to human health only if ingested by drinking the water.

*Restriction:* Except as provided in Subsection C.7 below, Grantee shall not engage in any disturbance or use of any untreated ground water underlying the Property, including the drilling of wells, the excavation of soils that expose ground water, or the diversion of ground water through any means without express written consent of the State of Colorado Department of Public Health and Environment (CDPHE) and the Grantor. This also includes, but is not limited to, restrictions on excavation of the underlying soils for their gravel content. **Any** request for consent to disturb or use any untreated ground water underlying the Property must include water quality data and a human health and ecological **risk** evaluation.

Grantor installed 13 warning signs at reasonable access routes to the South Pond, North Pond, and wetland area to notify the public that no swimming, fishing, or drinking of the waters is permitted (Exhibit C). Grantee and successors must maintain the signs until the State of Colorado approves the removal of the notification signs. Grantor will continue to monitor the water quality of the ponds and, when the water quality meets State standards, request the State to approve removal of the restrictions, including the notification signs.

Grantee shall not engage in any use of the surface expressions of ground water that might result in accidental consumption of the water, fish, or other aquatic species. This includes, but is not limited to, restrictions on fishing, swimming, activities that result in prolonged human contact with the water, hatchery operations for production of fish or other aquatic species for human consumption, and other recreational uses, unless this is modified per the Errata Sheets 3–5 to the Request for Deferred Remediation (approved by Governor Owens on August 15,2001).

2. Building 12 Soil Contamination

*Contamination:* Grantor acknowledges that there is known contamination on the Property underlying the south end of Building 12 (see Exhibit C); Grantor covenants to remain solely responsible for the complete remediation of these conditions, as well as any later-discovered contamination. The contamination, believed to be the residue of a stockpile of uranium ores, poses a potential threat of radioactive exposure to individuals excavating the soils. There is no threat to persons occupying the building nor to the conducting of routine business activities, nor is there any indication the residual contamination is impacting the ground water.

*Restriction:* Except as provided in Subsection C.7 below, Grantee shall not, under any circumstances, without express written permission of CDPHE and the Grantor, engage in any activity that would result in the disturbance of soils or structures underlying the south end of Building 12. Grantor shall remediate all contamination under and around Building 12 prior to termination of Grantor's lease of the building. Grantee accepts that the remediation will include demolition of Building 12 as the most cost-effective process to complete the remedial action and hereby agrees to accept this remediation approach. Grantor will not be responsible to rebuild the building or otherwise compensate the Grantee for the loss of the building.

3. Building 20 and Laboratory Sample Preparation Building

*Contamination:* Grantor acknowledges that there is known contamination on the Property beneath the southwest corner of Building 20 (see Exhibit C). Grantor covenants to remain solely responsible for the complete remediation of the soils under Building 20 and any contaminated soils underneath the Laboratory Sample Preparation Building. The known contamination under Building 20, believed to be from mill tailings used as fill material to raise the elevation of a pond bank prior to construction of Building 20, poses a potential threat to persons excavating the soils from exposure to radioactive materials. There is no known threat to persons occupying the building or to the conducting of routine business activities, nor is there any indication that the contamination is impacting the ground water.

*Restriction:* Except as provided in Subsection C.7, below, Grantee and its assigns shall not, under any circumstances, without express written permission of CDPHE, Grantor, or as set forth in the Contingency Plan, engage in any activity that would result in disturbance of soils or structures underlying the south end of Building 20. Prior to altering the structural integrity of the floor at the south end of Building 20, such permission must be obtained. When Grantor decides to vacate the building, Grantor will demolish the building and remediate contaminated materials beneath the building to within regulatory limits.

The Grantor plans to continue to operate the laboratory in Building 20 and consequently prepare samples and conduct sample preparation activities in the Laboratory Sample Preparation Building. At such time in the future when Grantor

ceases operation of the laboratory, Grantor shall demolish Building 20 and remediate any contaminated soils underneath the building. The Grantor shall also remediate any contamination resulting in the Laboratory Sample Preparation Building and from sample preparation activities.

4. Foil Sources in Abandoned Well

*Contamination:* Grantee acknowledges that there is known contamination in the form of two foil radium sources encased in an abandoned well at the site (see Exhibit C for location). The well was abandoned in accordance with State of Colorado requirements, and the sources were encased in the well with the approval of the State.

*Restrictions:* Grantee shall not engage in any activity that disturbs the seal on the well encasement or the well itself without the express written consent of CDPHE and the Grantor.

5. Enforceable Agreement

Grantor has entered into an enforceable agreement with CDPHE in accordance with State of Colorado Executive Order D.013.98 and CERCLA 120(h). The agreement establishes the Grantor's cleanup plans for Building 12, Building 20, and the ground water (with the exception of the Foil Sources), reiterates the land-use controls placed upon the Grantee and successors, specifies the monitoring of contaminated areas by the Grantor, and provides a funding mechanism for the Grantor to reimburse CDPHE for oversight activities.

6. Grantee's Responsibilities

Grantee is responsible for assuring that the restrictions in this section and Grantor's rights of access related to the above and stated in this Deed, are stated in each subsequent instrument of transfer if Grantee passes ownership to another entity. Grantee is responsible for notifying Grantor's Long-Tern Surveillance and Maintenance Program of such transfer. Grantee acknowledges its landlord responsibilities to monitor tenants' activities to ensure protection of Building 12 and 20 floors, to allow for safe soil excavation on the Property, to protect the abandoned well identified above, and to be protective of Grantor's remaining ground water monitoring wells.

Grantor acknowledges that planned use of the Property is for a mixture of commercial, industrial, office space, and open space, as stated in Grantee's Reuse Plan. Grantee's planned use is not restricted except as herein noted.

7. Contingency Plan

Grantor and Grantee shall agree to a Contingency Plan outlining the process for Grantee to follow if contaminated soil or ground water is encountered in a situation deemed to be an emergency. CDPHE has approved the plan (Exhibit D).

(D) Grantor hereby reserves, and Grantee accepts on behalf of itself and its successors and assigns, a right of access to all portions of the Property for environmental investigation, remediation or other corrective action found to be necessary regarding Site Substances (as defined in Section II) located on this Property as of the date of transfer. This reservation includes the right of access to and use of available utilities at reasonable cost to Grantor. These rights shall be exercisable in any case in which a remedial action, response action or corrective action is found to be necessary after the date of this conveyance, or in which access is necessary to carry out a remedial action, response action, or corrective action on adjoining property. Pursuant to this reservation, the United States of America, and its respective officers, agents, employees, contractors and subcontractors shall have the right to enter upon the Property and conduct investigations and surveys, to include drilling, borings, data and records compilation and other activities related to environmental investigation, and to carry out remedial or removal actions as required or necessary, including but not limited to the installation and operation of monitoring wells, pumping wells, and treatment facilities, and use of other actions deemed necessary by the Grantor to comply with all federal and state statutes, regulations or any court order. Grantee acknowledges that the removal of contamination may necessitate destruction of certain improvements at the Property and agrees to enter into negotiation with Grantor to determine appropriate and reasonable reparations.

(E) Grantee covenants and agrees for itself, its successors and assigns and every successor in interest to the Property, or part thereof, that while the respective parties identified in this paragraph and/or any party occupying the Property are in possession of the Property, they shall not disrupt or prevent the United States of America and its officers, employees, agents, contractors and subcontractors, and any other authorized party or entity from conducting required remedial investigations, response actions and oversight activities or from the proper and necessary construction, upgrading, operating, maintaining and monitoring of any ground water, surface water, or sediment treatment facilities or monitoring network on the Property or adjoining property.

(F) Grantor will submit a budget request to the Director of the Office of Management and Budget for the investigation and completion of all necessary response actions in accordance with CERCLA Subsection 120(h)(3)(C)(ii)(IV).

## V. Specific Environmental Notices, Exceptions, Restrictions and Covenants Affecting the Property

This Quitclaim Deed covering the Property is expressly made subject to the following environmental notices, exceptions, restrictions and covenants affecting the Property to the extent and only to the extent the same are valid and affect the Property:

(A) Notice that the **Property** Contains Improvements that may Contain **Asbestos**

(1) Grantee is hereby warned that the Property contains asbestos-containing materials. Unprotected or unregulated exposures to asbestos in product manufacturing, shipyard, and building construction workplaces have been associated with asbestos-related diseases. Both the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) regulate asbestos because of the potential hazards associated with exposure to airborne asbestos fibers. Both OSHA and EPA have determined that such exposure increases the **risk** of asbestos-related diseases, which include certain cancers and which can result in disability or death.

(2) Grantee has been invited, urged and cautioned to inspect the Property as to its asbestos content and condition and any hazardous or environmental conditions relating thereto. Grantee shall be deemed to have relied solely on its own judgment in assessing the overall condition of all or any portion of the Property, including, without limitation, any asbestos hazards or concerns.

(3) Except as otherwise provided in this Deed, no warranties either express or implied are given with regard to the condition of the Property, including, without limitation, whether the Property does or does not contain asbestos or is or is not safe for a particular purpose.

(4) The description of the Property set forth in this Quitclaim Deed and any other information provided herein with respect to said Property is based on the best information available and is believed to be correct, but an error or omission, including but not limited to the omission of any information, shall not constitute grounds or reason for nonperformance of the contract of sale, or any claim by the Grantee against the Government, except as otherwise provided or as necessary to implement the terms hereof and the stated purposes of this Deed.

(5) Grantor assumes no liability for damages for personal injury, illness, disability or death, to the Grantee, or to the Grantee's successors, assigns, employees, invitees, or any other person subject to Grantee's control or direction, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition or other activity causing or leading to contact of any kind whatsoever with asbestos on the Property which is the subject of this sale, whether the Grantee, its successors or assigns has or have properly warned or failed properly to warn the individual(s) injured.

(6) Grantee further agrees that in its use and occupancy of the property it will comply with all federal, state, and local laws relating to asbestos.

(B) Notice that the Property Contains Improvements that may Contain Lead-based Paint

Effective upon transfer pursuant to this Deed, Grantee, for itself, its heirs and assigns and every successor in interest to the Property herein described, or any part thereof, based on the representations from Grantor to the Grantee, hereby releases and waives any and all claims it may have against the United States of America with respect to any and all loss, judgment, claims, demands, expenses or damages, of whatever nature or kind which might arise or be made against the United States of America as a result of lead-based paint having been present on the Property herein described, as of the date of transfer.

(C) Notice of Wetland Area and Floodplain

Grantee agrees and covenants for itself, its successors and assigns, that any development of the above-described Property will be subject to all applicable floodplain and wetland regulations and other applicable federal, state and local statutes and ordinances relating to floodplains and wetland. Before engaging in any ground disturbance activity that would adversely affect the extent, condition and function of the floodplain or wetland areas, Grantee agrees to obtain prior authorization from the United States Army Corps of Engineers and/or other relevant authorities pursuant to Section 404 of the Federal Clean Water Act and relevant floodplain requirements.

Effective upon transfer pursuant to this Deed, Grantee, for itself, its heirs and assigns and every successor in interest to the Property herein described or any part thereof, based on the representations from Grantor to Grantee, hereby releases and waives any and all claims it may have against the United States of America with respect to any and all loss, judgment, claims, demands, expenses or damages of whatever nature or kind which might arise or be made against the United States of America as a result of the Property herein described lying in a floodplain or being flooded.

(D) Notice of Federal Aviation Administration Restrictions

Grantee covenants for itself, its successors and assigns and every successor in interest to the Property herein described, or any part thereof, that any construction or alteration at the Property will not be undertaken without providing appropriate notice to the Federal Aviation Administration pursuant to 14 CFR 77.13 unless the exemption of Subsection 14 CFR 77.15 applies to such construction.

VI. General Exceptions to Conveyance

This sale is made subject to the following exceptions, which have been disclosed in Schedule B of The Commitment for Title Insurance No. 999-04-003L-C2, issued by Western Colorado Title Company on April 1, 1999, at 8.00 a.m. This commitment was obtained by the Grantor for planning purposes and will be made available to the purchaser upon request. The Quitclaim Deed shall contain the following exceptions:

(A) Rights or claims of parties in possession not shown by the public record.

(B) Easements, or claims of easements, not shown by the public records,

(C) Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts that a correct survey and inspection of the premises would disclose and which are not shown by the public records.

(D) Any lien, or right to a lien, for services, labor, or material heretofore or hereafter, furnished, imposed by law and not shown by the public records.

(E) Taxes and assessments which are a lien or due and payable, and any tax, special assessments, charges or lien imposed for water or sewer service, or for any other special taxing district or any unredeemed tax sales.

(F) Reservation, as set forth in United States Patent recorded August 3, 1895, in Book 11 at page 400, as follows: "Herein described property subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to intersect said premises." (Affects **NE** ¼ NE ¼ of Lot 1)

(G) Reservation, as set forth in United States Patent recorded August 3, 1895, in Book 11 at page 399, as follows: "Herein described property subject to the right of the proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to intersect said premises." (Affects SE ¼ NE ¼ of Lot 7 and NE ¼ SE ¼ of Lot *6)*

(H) Right-of-way for road across subject property per document in Road Book 3 at page 146.

(I) Right-of-way 200 feet wide across the E ½ E ½ of said Section 27 as evidenced by documents recorded September 24, 1976 in Book 1061 at page 469.

(J) Private Way License, for private road crossing, including the terms and conditions thereof recorded September 29, 1982, in Book 1393 at page 272.

(K) Right-of-Way for the Denver and Rio Grande Western Railroad across subject property.

## VII. Miscellaneous Covenants/Grantor

(A) Except to the extent that the Grantee, its successors or assigns, are determined to be a potentially responsible party, any response action or corrective action found to be necessary after the date of this Deed regarding any Site Substance(s) relative to the hereinabove and conveyed Property shall be conducted by the United States of America, if it be determined that such Site Substance(s) contaminated the hereinabove described and conveyed Property **prior** to the date of this Quitclaim Deed, and the United States of America is a responsible party; notwithstanding any language in this Subsection A, the provisions of Subsection VIII C shall control.

## VIII. Miscellaneous Covenants/Grantee

Grantee, for itself and its successors and assigns, covenants and agrees to abide with the agreements and covenants running with the land identified in this Quitclaim Deed. In addition, the United States of America shall be deemed a beneficiary of each of the agreements and covenants without regard to whether it remains the owner of any land or interest therein in the locality of the Property hereby conveyed and shall have a right to enforce each of the agreements and covenants in any court of competentjurisdiction. Notwithstanding the foregoing except with respect to the requirements of 42 U.S.C9620(h), Grantor, and its assigns shall have no affirmative duty to any successor in title to this conveyance to enforce any of the agreements and covenants.

(A) Except as otherwise provided in this Deed, the Property is conveyed "as is" and "where is" without any representation or warranty on the part of Grantor to make any alterations, repairs or additions. Grantee, for itself and its successors and assigns, further acknowledges that Grantor has made no representations or warranty concerning the condition and state of repair of the Property nor has Grantor made any other agreement or promise to alter, improve, adapt or repair the Property not otherwise contained herein.

(B) The following covenant shall run with the land for a period of three (3) years from the date of conveyance:

(1) With respect to the property described in this Deed, if at any time within a three-year (3-year) period from the date of transfer of title by the Grantor, the Grantee, or its successors or assigns, shall sell or enter into agreements to sell the property, either in a single transaction or in a series of transactions, it is covenanted and agreed that all proceeds received or to be received in excess of the Grantee's or a subsequent seller's actual allowable costs will be remitted to the Grantor. In the event of a sale of less than the entire property, actual allowable costs will be apportioned to the property based on a fair and reasonable determination by the Grantor.

(2) For purposes of this covenant, the Grantee's or a subsequent seller's allowable costs shall include the following:

(a) The purchase price of the real property;

(b) The direct costs actually incurred and paid for improvements which serve only the property, including road construction, storm and sanitary sewer construction, other public facilities or utility construction, building rehabilitation and demolition, landscaping, grading, and other site or public improvements;

(c) The direct costs actually incurred and paid for design and engineering services with respect to the improvements described in (2)(b) of this section; and,

(d) The finance charges actually incurred and paid in conjunction with loans obtained to meet any of the allowable costs enumerated above.

(3) None of the allowable costs described in (B)(2) of this section will be deductible if defrayed by federal grants or if used as matching funds to secure federal grants.

(4) In order to verify compliance with the terms and conditions of this covenant, the Grantee, or its successors or assigns, shall submit an annual report on request for each of the subsequent three (3) years to the Grantor on the anniversary date of this Deed. Each report will identify the property involved in this transaction and will contain such of the following items of information as are applicable at the time of submission:

(a) A description of each portion of the property that has been resold;

(b) The sale price of each such resold portion;

(c) The identity of each purchaser;

(d) The proposed land use; and,

(e) An enumeration of any allowable costs incurred and paid that would offset any realized profit.

(f) If no resale has been made, the report shall so state.

(5) The Grantor may monitor the property and inspect records related thereto to ensure compliance with the terms and conditions of this covenant regarding resale and may take any actions which it deems reasonable and prudent to recover any excess profits realized through the resale of the Property.

(C) Liability for Environmental Conditions. Grantor agrees to release, indemnify and hold harmless the Grantee, the City of Grand Junction, and the County of Mesa, their officers, directors, officials, employees, agents, tenants, appointees, successors, assigns, and contractors of each, from and against all liability, claims, suits, actions, administrative proceedings, orders, damages, costs, assessments, fines and penalties, including court costs and reasonable expert witness and attorneys' fees, arising out of or relating to any claims for damages arising from the release or threatened release at the Property of any "Site Substances," as defined in this Quitclaim Deed, as a result of any activities which occurred prior to the date of transfer, subject to the following conditions:

(1) If any suit or claim is filed or made against the Grantee or its tenants, the Grantee or its tenants shall forthwith notify the Grantor's Long-Term Surveillance and Maintenance Program at 2597 B ¾ Road, Grand Junction, Colorado 81503, and

promptly furnish copies of all pertinent documents received. Should this address change, the Grantor will forthwith notify the Grantee in writing. In addition, the Grantee or its tenants shall authorize the Grantor or other Government representatives to collaborate with the Grantee or its tenants in settling or defending the suit or claim.

(2) The Grantor may avoid its duty to defend, hold harmless, and indemnify a claim by the Grantee or its tenants (as defined in Subsection C) if the claim results only from the Grantee's or tenants' actions or inactions occurring after the date of the transfer of title of the Property. If there is a dispute regarding whether the Grantee or its tenants' actions or inactions caused damages, or the proportion of such action or inaction which caused some or all of the damages, Grantor shall provisionally defend and hold harmless the Grantee or its tenants. If it is determined in any final judicial or administrative proceeding that the Grantee's or its tenants' actions or inactions caused or contributed to the claim, the Grantee or its tenants shall reimburse the Grantor for costs paid by the Grantor in an amount proportional to the percentage of fault, negligence or responsibility allocated to the Grantee, its tenants, and the licensees and invitees of Grantee and its tenants, by the judgment, decision, determination, or settlement. Until a point in time when all of the ground water underlying the Property meets applicable standards (estimated to take 50–80 years from the date hereof), if during such administrative or judicial or equivalent process, fault is not clear or proved by a preponderance of the evidence, the Grantor agrees to indemnify the Grantee, as set forth herein.

(3) The CERCLA 120(h) list, and any necessary revisions thereto and deed restrictions as augmented and supplemented from time to time as new information becomes available as provided in the Quitclaim Deed, shall be used by the Parties as a basis for determining the condition of the Property as of the date of transfer pursuant to this Quitclaim Deed and whether any claim for damages directly arises from the release or threatened release of any Site Substance(s) at the Property as a result of activities at the Property prior to the date of transfer.

(4) The Grantor's duty to defend and hold the Grantee and its tenants harmless is subject to the availability of appropriated funds. Nothing in this Quitclaim Deed shall be construed as implying that the Congress will, at a later date, appropriate funds sufficient to meet any of these requirements.

*(5)* For the purposes of this Subsection C, the term "Grantor," as defined in this Deed, includes the DOE and every person and entity that, prior to the date of transfer, had a contractual relationship, direct or indirect, with the DOE.

*(6)* No other provision of this Quitclaim Deed shall be construed to have impliedly or otherwise amended, changed or modified any term, provision or duty described in this section; the provisions of this Subsection C shall control over any other term, section or provision.

(D) Grantee has inspected the described and conveyed Property and has satisfied itself that, based on the representations of the Grantor and Grantee's physical inspection, the Property is free of any Site Substance(s) (as defied in Section 11), except as described herein.

IX. **Special Terms of Sale:**

(A) Upon conveyance, the subject parcel may become subject to all applicable laws, ordinances, and regulations, which may not have applied while title remained in the United States, including building and zoning ordinances and post conveyance taxes which previously were not in effect.

(B) In the event that circumstances for reversion of the Property arise, the Property shall first revert to ownership by either the City of Grand Junction, Colorado, or the County of Mesa, Colorado, then the Property shall revert to the Grantor if it so desires. Grantor's responsibilities, promises and obligations, set forth herein, reside with and bind the Grantor regardless of reversion.

(C) Conveyance of the Property by Quitclaim Deed is contingent upon approval by the Governor of the State of Colorado of the Grantor's Request for Deferred Remediation.

(D) Grantor, pending approval from the Union Pacific Railroad Company, assigns to Grantee the existing lease (Folder #01778-11) with Union Pacific Railroad Company for parking space. Grantee accepts assignment as a condition of this Quitclaim Deed.

X. **Third-Party Beneficiary**

The State of Colorado is a third-party beneficiary of this Quitclaim Deed between Grantor and Grantee. The consent by the Governor of Colorado to the deferred remediation is in justified reliance on the Grantor's "response action assurances" mandated by 42 U.S.C. § 9620(h)(3)(C)(ii) and as set forth in Section IV (C), (D) and (E), as well as Grantor's covenant warranting additional remediation mandated by 42 U.S.C. § 9620(h)(3)(A)(ii)(II) and as set forth in Section VII (A).

**In Witness Whereof**, the United States of America **has** caused these presents to be executed **this** 19th day of SEPTEMBER 2001.

United States of America
Acting by and **through** the
Secretary of Energy

By: [redacted]

**The State of Colorado** )
)
**County of Mesa** )

**Before Me**, a Notary Public in and for the State of Colorado, on this day personally appeared DONNA BERMAN-TARRET, known to me to be the person whose name is subscribed to the foregoing Quitclaim Deed, and known to me to be the [redacted] GJO Manager for Dept of Energy, and acknowledged to me that the same was the act and deed of the United States of America and o the Secretary of Energy and that he/she executed the same as the voluntary act of the United States of America and of the Department of Energy for the purposes and consideration therein expressed and in the capacity therein stated.

**Given Under My Hand and Seal of Office** at 551 Grand Ave, Grand Jct Co 81501, this 19th day of September, 2001.

[redacted]

Notary Public, State of Colorado

NOTARY PUBLIC
SUSAN J OTTMAN
STATE OF COLORADO

My Commission Expires
November 2, 2001

# Errata Sheet

**The following changes apply to the *Revised Request for Deferred Remediation U.S. Department of Energy Grand Junction Office Site*, October 6, 2000.**

Page 1, Section 1.0, Paragraph 1. Sentence 2 should read as follows:

"The GJO site will be transferred to a nonprofit organization representing the City of Grand Junction and Mesa County (the Riverview Technology Corporation or RTC) in 2001, with the DOE remaining as a tenant at the site for the foreseeable future."

Page 13, Section 4.5. Sentences 1, 2, and 3 should be replaced by the following five sentences:

"DOE will leave a pair of radium foil sources on-site encased in a 300-foot deep borehole. The low-activity sources were used to calibrate borehole instrument depth meters. Foil with a radium-226 concentration of 29 picocuries per gram (pCi/g) is located at a depth of 81 feet, and foil with a radium-226 concentration of 3 pCi/g is located at a depth of 181 feet. The borehole was abandoned in accordance with well permit requirements and a plan approved by the State of Colorado. Abandonment included injection of concrete grout into and around the well casing to encase the foil, thus eliminating the potential for future exposure unless the well is excavated."

Page 18, Section 5.1.1, Paragraph 3. Delete Sentences 6 and 7: Linear trend line plots are not present in Attachment D, nor is there a Figure 8 in Attachment D.

Page 20, Section 5.1.2, Paragraph 1. Sentence 2 should read as follows:

"The remaining 36 wells were found to be redundant or unnecessary and none of them have been sampled since 1998."

Page 23, Section 5.3, Paragraph 1. Sentence 1 should read as follows:

"Upon notice of termination of DOE's lease of Building 20, DOE will prepare a design package (including schedule and budget) for demolition of Building 20, remediation of underlying contaminated soils/structures, and removal of waste materials to an acceptable repository (i.e., the Cheney Repository)."

Page 23, Section 5.3. Delete Paragraph 2 in its entirety.

Page 23, Section 5.4. Sentence 4 should read as follows:

"This remedy, of decontamination/demolition of structures, removal of contaminated soil/structural debris, and disposal at the Cheney Repository, has been followed during the entire site cleanup with the exception of Buildings 2 and 20, which utilized dose-based release for unrestricted use under DOE Order 5400.5."

Page 29, Section 6.2.3, Building 20. The two paragraphs should be replaced by the following paragraph:

"Grantee shall not, under any circumstances, without express written permission of CDPHE and the Grantor, engage in any activity that would result in the disturbance of soils or structures underlying the west end of Building 20. Grantor is required to remediate all contamination under and around Building 20 prior to termination of Grantor's lease of the building. Grantee accepts that the remediation will include demolition of Building 20 as the most cost-effective process to complete the remedial action and hereby agrees to accept this approach. Grantor will not be responsible to rebuild the building or otherwise compensate the Grantee for the loss of the building."

**The following changes apply to the Draft *Enforceable Agreement between State of Colorado Department of Public Health and Environment and U.S. Department of Energy Grand Junction Office Under State of Colorado Executive Order D-013-98*, October 5, 2000.**

Page 6, Section IV.C.2. The two paragraphs should be replaced by the following paragraph:

"Grantee shall not, under any circumstances, without express written permission of CDPHE and the Grantor, engage in any activity that would result in the disturbance of soils or structures underlying the west end of Building 20. Grantor is required to remediate all contamination under and around Building 20 prior to termination of Grantor's lease of the building. Grantee accepts that the remediation will include demolition of Building 20 as the most cost-effective process to complete the remedial action and hereby agrees to accept this approach. Grantor will not be responsible to rebuild the building or otherwise compensate the Grantee for the loss of the building."

Page 10, Section V.A.3. Paragraphs "a" and "b" should be replaced by the following paragraph:

"Grantee shall not, under any circumstances, without express written permission of CDPHE and the Grantor, engage in any activity that would result in the disturbance of soils or structures underlying the west end of Building 20. Grantor is required to remediate all contamination under and around Building 20 prior to termination of Grantor's lease of the building. Grantee accepts that the remediation will include demolition of Building 20 as the most cost-effective process to complete the remedial action and hereby agrees to accept this approach. Grantor will not be responsible to rebuild the building or otherwise compensate the Grantee for the loss of the building."

Page 10, Section V.B. Sentences 3, 4, and 5 should be replaced by the following two sentences:

"DOE is financially responsible for demolition of Buildings 12 and 20. The structures are not contaminated."

Page 12, Section V.K, Paragraph 3. Replace Sentences 2 and 3 with the following sentence:

"Demolition and remediation estimates for Buildings 12 and 20 will be developed during Fiscal Year 2001 and will be available to insert in the budget request when DOE has developed a definite schedule to vacate those buildings."

The following changes apply to the *Quitclaim Deed.*

Page 5, Section IV.C.3. Paragraphs 2 and 3 should be replaced by the following paragraph:

"*Restriction:* Except as provided in C.7, below, Grantee shall not, under any circumstances, without express written permission of CDPHE and the Grantor, engage in any activity that would result in the disturbance of soils or structures underlying the west end of Building 20. Grantor is required to remediate all contamination under and around Building 20 prior to termination of Grantor's lease of the building. Grantee accepts that the remediation will include demolition of Building 20 as the most cost-effective process to complete the remedial action and hereby agrees to accept this approach. Grantor will not be responsible to rebuild the building or otherwise compensate the Grantee for the loss of the building."

The following changes **apply** to the Draft Final *Long-Term Surveillance Plan for the U.S. Department of Energy Grand Junction, Colorado, Office Facility,* September **2000.**

Page 1, Section 1.2, Paragraph 4. Sentence 1 should read as follows:

"The primary relevant and appropriate regulations and guidance for the remediation of the GJO facility are 40 CFR 192 and DOE Order 5400.5 (DOE 1989a and DOE 1989b).[1]"

Page 12, Paragraph 4. Sentence 3 should read as follows:

"Analytical laboratory results for soil samples collected from the deposit of contaminated soil had maximum concentrations of 177 pCi/g for radium-226, 148 pCi/g for thorium-230; and 269 pCi/g for total uranium."

Page 12, Second Full Paragraph. Sentence 4 should read as follows:

"A concrete sump integral to the Building 12 foundation has fixed surface contamination as high as 50,000 disintegrations per minute per 100 square centimeters."

Page 12, Sixth Full Paragraph. The paragraph should be revised to indicate the following information:

DOE will demolish Buildings 12 and 20 (in their entirety) when DOE operations in those buildings cease. The building structures have been released for unrestricted use, and the demolition debris will be hauled to a public landfill. Contaminated soil and debris was left under the west end of Building 20 for economic and structural reasons. The contaminated concrete slab

and soil under the south end of Building 12 was left in place for economic reasons. DOE will remediate the contaminated materials beneath the buildings and dispose of the material at Chency Repository. The soil within the building footprints will be radiologically verified to comply with regulatory limits.

**plate:**

The location of the 300-ft borehole with radium foil should be moved a couple hundred feet to the northwest.

The following changes apply to the specified areas of the final DR:

1. The first sentence in Section IV.A.2, paragraph 3 of the Enforceable Agreement, Section IV.C.1 paragraph 5 of the Quitclaim Deed, and paragraph 5 to Appendix E of the Long Term Surveillance Plan, Attachments A, B, and C respectively to the final DR has been modified and now states: "Grantee shall not engage in any use of the surface expressions of groundwater, except as described below, that might result in accidental consumption of the water, fish, or other aquatic species."

   The following paragraphs are also added to Section IV.A.2 of the Enforceable Agreement as paragraphs 4 through 6, Section IV.C.1 of the Quitclaim Deed as paragraphs 6 through 8, and to Appendix E of the Long Term Surveillance Plan as paragraphs 6 through 8 in the final DR.

   The Grantee may allow the U.S. Fish and Wildlife Service to utilize the surface water ponds on-site to raise Razorback Suckers (Xyrauchen texanus) prior to their introduction into the wild. No construction to the existing ponds is allowed unless specifically authorized by the Colorado Department of Public Health and the Environment. The U.S. Fish and Wildlife Service is the only agency authorized for this purpose, and the ponds may not be utilized for raising other fish species.

   The Razorback Suckers may be placed in the ponds each April and then later harvested from the ponds, not to exceed a duration of 8 months. The U.S. Fish and Wildlife Service will make every practical effort to remove all the fish from the ponds each growing season, and ensure that the fish are released into areas that are physically isolated from Northern Pike (Esox lucius) or other large predatory fish.

   The U.S. Fish and Wildlife Service will also ensure that its employees are adequately trained and protected from the hazards that they may encounter during the fish rearing operation. This training includes but is not necessarily limited to review of the Uranium Mill Tailings Management Plan and review of the most recent groundwater and surface water monitoring data for the site as provided for annually by the U.S. DOE.

2. Section 4.1 1 of the draft DR text, sentence 5 states "It (lead based paint) is not a CERCLA **hazardous** substance. This sentence is considered to be deleted from the final DR text.

NOTICE
Regarding what is commonly known as
the DOE Site,
Now to be known as the RTC property.

The purpose of this Notice is to generally describe the other documents and information that must be read to fully understand the state of title, and other important information available with regard to what has been known locally as the United States Department of Energy Grand Junction Site.

Said Site is a part of Lot 1, **all** of Lots **6** and **7**, section **27** AND a part of G.L.O. Lot 1 in Section **26,** all in Township 1 South, Range 1 West of the Ute Meridian, Mesa County, CO.
The street address of the Site has been **2597** B ¾ Road, Grand Junction, CO **81503.** The acreage of the Site being transferred to the RTC is approximately **46** acres.
The RTC is the Riverview Technology Corporation, Inc., a Colorado not for profit corporation, the address of which is presently c/o Western Colorado Business Development Corp., **2591** B ¾ Road, Grand Junction, CO **81503.**

This notice is intended to supplement that Quit Claim Deed recorded at **Book** 2938 pages 153[redacted] of the Mesa County Clerk and Recorder's records, including the ~~three~~ "Errata sheets" recorded at Book 2938 Pages, which Errata Sheets are a part of "Final Request **for** Deferred Remediation," signed August **15,2001** by Governor Owens.

To understand the agreements, restrictions, duties, obligations and limitations that apply to the property described in that Quit Claim Deed the following additional documents and information is necessary:
1. A two volume, loose-leaf, set.
Volume One contains Errata Sheets (pages **1-5),** DOE's request to the Governor termed "Request for Deferred Remediation" (pages **1-3**1); and attachments labelled "A" through "H."
Volume two contains:

a. the Purchase and Sale Agreement between the DOE and the RTC;
b. the Lease agreement between the DOE and the RTC;
c. the "Contingency Plan;"
d. Uranium Mill Tailings Management Plan (UMTMP).

**A** set of these two volumes will be permanently available for public review at the following locations:
-U.S. Department of Energy (Grand Junction Projects Office), **2597** B ¾ Road, Grand Junction, CO **81503.** If this office closes, the DOE will notify the City of Grand Junction City Clerk and the Clerk to the Board of County Commissioners of Mesa County, specifying the new location of the two volumes;
-The City Clerk of the City of Grand Junction, **250** North Fifth St., Grand Junction, CO **8150**1;
-Mesa County Library District, Main Library in Grand Junction, **530** Grand Ave., Grand Junction, Co 81501;
-Colorado Department of Public Health and Environment, **222** South **6th** St., Grand Junction, CO **81501.**

**Department of Energy**
**Office of Legacy Management**

August 30, 2010

OLM-LEK-2010-116

Mr. Dennis King, Vice President
Riverview Technology Corporation
2591 B 3/4 Road
Grand Junction, Colorado 81503

Subject: Transmittal of Conveyance of Black Bridge Park Land – Grand Junction, Colorado

Dear Mr. King:

Enclosed for your records is the original recorded Correction to Quitclaim Deed for the Black Bridge Park Land in Grand Junction, Colorado, conveying the tract to the Riverview Technology Corporation.

If you have any questions, please contact me at (720) 880-4338.

Sincerely,

Laura E. Kilpatrick, Esq.
Realty Officer

Enclosure

cc w/enclosure:
M. Orn, Riverview Technology Corporation
B. Petersen, Riverview Technology Corporation
C. Montaña, Jr., DOE (e)
J. Desormeau, DOE (e)
L. Weyler, DOE (e)
M. Butherus, Stoller (e)
S. Campbell, Stoller (e)
W. Teer, Stoller (e)
Project File GJO 1430.10
Property Management File GJO 1430.10 (B. Gallagher)

2 PAGE DOCUMENT

# CORRECTION TO QUITCLAIM DEED

THE STATE OF COLORADO )
)
COUNTY OF MESA )

RECEPTION #: 2543463, BK 5047 PG 653 08/24/2010 at 10:21:51 AM, 1 OF 2, R $15.00 S $1.00
Janice Rich, Mesa County, CO CLERK AND RECORDER

**KNOW ALL MEN BY THESE PRESENTS:**

The United States of America (Government), acting by and through the U.S. Department of Energy (Grantor) did on the 19th day of September, 2001, execute and deliver to the Riverview Technology Corporation (Grantee) a Quitclaim Deed for the conveyance of certain lands, situated in Mesa County, Colorado, which is recorded in Book 2938, Page 15 of the Deeds of Record of Mesa County. The Quitclaim Deed was intended to include the transfer of 5.32 acres of land known as the Black Bridge Tract (Property), more particularly described in Exhibit A, which is attached to and made a part of this Correction to Quitclaim Deed (Correction) to Grantee. However, the Property remains identified in the Mesa County Deeds of Record as Government property. Therefore, Grantor is executing this Correction in order to clarify the title and correct the County's records.

This Correction, given as an amendment to the Quitclaim Deed, shall be effective as of and retroactive to the date it was filed. Except as corrected in this Correction, the Quitclaim Deed shall remain in full force and effect.

**NOW, THEREFORE,** the Grantor, in consideration of the specific agreements set out in the Quitclaim Deed, which is hereby acknowledged, hereby grants, sells, conveys and confirms unto the Grantee the tract of land situated in the County of Mesa, State of Colorado, described in Exhibit A.

**IN WITNESS WHEREOF,** the Grantor executes this Correction this 24th day of August, 2010.

U. S. Department of Energy
Office of Legacy Management

[redacted]

Laura E. Kilpatrick, Esq.
Realty Officer
Property Reuse Team

Grantee Address:
Riverview Technology Corporation:
2597 B3/4 Road
Grand Junction, CO 81503

**Exhibit A**
**Black Bridge Track Legal Description**

A tract of land located in Mesa County, Colorado, Section 27, Township 1 South, Range 1 West of the Ute Meridian, more particularly described as follows:

Commencing at the northeast corner SE ¼ NE ¼ Section 27, Township 1 South, Range 1 West, Ute Meridian; thence N36°44'34" West 984.95 feet to the true point of beginning, that being a point on the West R.O.W. of the D. & R.G.W. Railroad: thence N32°09'57" West 91.61 feet; thence N56°13'47" West 100.32 feet; thence N89°03'27" West 174.50 feet; thence S85°10'12" West 282.68 feet; thence S72°14'54" West 58.59 feet; thence S51° 07'33" West 201.80 feet; thence 47° 34'54" West 224.76 feet; thence S38°11'37" West 113.15 feet; thence S45°25'29" West 53.64 feet; thence S05°28'49" East 43.48 feet to existing fence line; thence along said fence S38°53'06" West 34.42 feet; to the high water mark of the Gunnison river; thence along said high water mark for the following eight courses: N08°15'56" West 282.72 feet; N00°37'40" East 242.34 feet; N68°04'07" East 88.18 feet; N87°11'15" East 209.44 feet; N87°04'll" East 251.57 feet; N82°29'46" East 229.91 feet; N 82° 54'06" East 162.91 feet; N80°12'18" East 289.04 feet to the intersection of the West R.O.W. of the D. & R.G.W Railroad; thence along the arc of a curve to the left whose radius is 1030.00 feet and whose long chord bears S15°58'10" West 311.12 feet to the true point of beginning, containing 5.32 acres, more or less.

To Have and To Hold the same, together with: (1) all water rights, if any, located within the boundaries of the Property; (2) all improvements, hereditaments, appurtenances therein and all reversions, remainders, issues, profits, and other rights belonging or related thereto, either in law or in equity, for the use, benefit and behalf of the Grantee, its successors and assigns forever; and (3) all mineral rights and interest not previously conveyed of record.

**Enforceable Agreement**
**between**
**State of Colorado Department of Public Health and Environment**
**and**
**U.S. Department of Energy Grand Junction Office**
**Under State of Colorado Executive Order D-013-98**

I. Purpose

A. This Enforceable Agreement (Agreement) is entered into for the purpose of stating the Department of Energy's (DOE's) commitment to remediate those aspects of the Grand Junction Office (GJO) site, under new ownership by the Riverview Technology Corporation (RTC), having contamination remaining above regulatory standards and/or presenting a potential health risk to the public or the environment. This Agreement concerns only contamination existing prior to the date of deed transfer on the site.

B. This Agreement summarizes the controls placed by DOE upon the site, both physical and through land conveyance documents, to ensure protection of human health and the environment.

C. This Agreement identifies the remedial action strategy to be followed by DOE as it remediates the remaining contamination.

D. This Agreement provides for the State of Colorado Department of Public Health and Environment (CDPHE) to enforce any and all aspects of DOE's remaining remediation efforts and provides that funding will be transferred to CDPHE via a grant from DOE.

II. Legal Basis for the Agreement

A. Background

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120(h), to protect citizens and communities from the costs of cleaning up contamination on land transferred to them by federal agencies. Under Section 120(h)(3)(C), transfers of contaminated federal property not listed on the National Priorities List (NPL) are subject to the approval of the governor of the state where the property is located. Accordingly, the Governor of Colorado issued Executive Order D-013-98 requiring that, among other things, the Director of the Colorado Statewide Defense Initiatives (Director) together with the CDPHE develop evaluation criteria and review procedures for requests by federal agencies to transfer property prior to final remediation. In response to the Executive Order, the Director and CDPHE issued the "Joint Policy Establishing Evaluation Guidelines and Review Procedures Pertaining to Deferral Requests" (Joint Policy). In accordance with the Joint Policy, DOE worked closely with CDPHE to create the Request for Deferred Remediation for the site.

This Enforceable Agreement fulfills, in part, the requirements of the Executive Order and provides a legal mechanism for CDPHE to provide oversight of the contamination that will remain at the site following transfer. The enforceable cleanup plan set forth in Section V.A may be changed for good cause upon written concurrence of the parties.

B. Basis for CDPHE Enforceability

1. CERCLA 120(h)(3)(A)(ii) requires that any deed transferring property owned by a federal agency on which hazardous waste was stored, released or disposed of contain a covenant warranting that: 1) the federal agency has concluded all necessary remediation before the date of transfer and 2) the federal agency is responsible for all future remediation found to be necessary after the date of transfer.

   In the event, however, that the federal agency desires to transfer the property prior to the completion of all remediation, Section 120(h)(3)(C) requires the federal agency to include in the conveyance document or deed certain "assurances" that the agency will fully remediate the property. These assurances are designed to protect human health and the environment and include provisions for: 1) all necessary restrictions on the use of the property, including those that will ensure that remedial investigations, response actions, and oversight activities will not be disrupted and 2) all necessary response actions, including the identification of schedules for investigation and completion of such actions. These assurances are enforceable as a "standard, regulation, condition, requirement, or order" within the meaning of CERCLA Section 310(a). Accordingly, the State has the authority to file suit against DOE under CERCLA's citizen suit provision, Section 310(a), in the event DOE fails to abide by the assurances set forth in Section 120(h)(3)(C).

2. The State will be included as a third-party beneficiary in the transfer deed. The Deed will include the covenants and assurances mandated by sections 120(h)(3)(A)(ii)(II) and 120(h)(3)(C)(ii). A consent by the Governor to the deferred remediation is necessarily in justified reliance on DOE's covenants and assurances as set forth in the transfer deed and this Enforceable Agreement.

III. Background

A. Description of Property. The DOE is transferring the Property located at 2597 B ¾ Road in Grand Junction, Mesa County, Colorado, to the RTC (a nonprofit corporation sanctioned by the City of Grand Junction, Colorado, and the County of Mesa, Colorado, and created for the purpose of receiving and managing the Property). Following transfer of the site to the RTC, the DOE intends to continue to lease portions of the site in support of the current GJO mission, which is to provide project management, engineering, scientific support, and implementation of the federal government's environmental restoration programs.

The Property is legally described as follows:

All that portion of Lot 1 lying West of the right-of-way of the Denver and Rio Grande Western Railroad Company, and all of lots 6 and 7, subject to right-of-way of the Denver and Rio Grande Western Railroad Company, all being in Section 27, Township 1 South, Range 1 West, Ute Meridian, Mesa County, Colorado, containing 55.71 acres of land more or less, together with the private railroad spur thereon, and all rights and appurtenance thereto, also all water and water rights used thereon or appurtenant thereto, including the private line from artesian well, and all rights in connection therewith, and all buildings and improvements thereon as recorded in Book 415, page 405;

And, that portion of G.L.O. Lot 1, Section 26, Township 1 South, Range 1 West, Ute Principal Meridian, Mesa County, Colorado, lying west of the right-of-way of the Denver and Rio Grande Western Railroad Company containing 1.14 acres of land more or less, as recorded in Book 668, page 202;

Except: Parcel 1, located in G.L.O. Lot 7 of Section 27, Township 1 South, Range 1 West, Ute Principal Meridian, Mesa County, Colorado, containing 2.68 acres of land more or less as conveyed to A. N. Applebaum and recorded in Book 1606, page 986; and

Except: That portion to be reserved to the United States and called the Army Reserve Tract: containing 7.97 acres more or less;

This parcel then contains 46.20 acres calculated as follows: 55.71 acres (1943 Deed in Book 415, page 405) + 1.14 acres (Deed in Book 668, page 202) - minus - 2.68 acres (Deed in Book 1606, page 986) - minus - 7.97 acres (Army Reserve Tract to be recorded) equals 46.20 acres of land more or less.

B. History of Contamination. The GJO facility lands were acquired by the U.S. War Department in August 1943 to refine uranium for the Manhattan Project. Uranium was milled, analyzed, and stored on the GJO facility from 1943 to 1975. All known environmental contamination is believed to be the result of these past activities. According to historical records, approximately 32,000 tons of ore were processed between 1943 and 1958. The resulting tailings, consisting of an approximate volume of 178,000 cubic yards of material, were stored or used at many locations at the site.

In planning for cleanup of the facility, DOE-GJO complied with the National Environmental Policy Act (NEPA) process and followed the environmental management protocols of CERCLA, in accordance with DOE policy, even though the site did not qualify for placement on the NPL. A final Remedial Investigation/ Feasibility Study–Environmental Assessment that addressed remediation of the facility was completed in 1989.

A Record of Decision was issued in 1990 that established the approved remedial action as removal of soil contamination to regulatory standards, decontamination of three contaminated structures, and natural flushing of contaminated ground water. Ground water contaminants were predicted to achieve regulatory standards within 50–80 years. All contaminated materials were to be disposed of at the Grand Junction (also known as Cheney), Colorado, Disposal Cell, a local, licensed repository for uranium mill tailings.

The site's soils were declared clean and releasable to the public by DOE's Independent Verification Contractor (IVC), Oak Ridge National Laboratory (now known as AIMTech), in 1997. During the early 1990s, DOE began investigating all site structures to determine whether additional radioactive contamination from mill tailings existed. As a result, certain structures have been demolished, and numerous structures have been verified as clean by the IVC after remediating specific areas of contamination, following the regulatory standards set forth in the original Record of Decision.

IV. Description of Remaining Contamination and Specific Institutional Controls in Quitclaim Deed (see Figure 1). (Note: This section is taken from the Deed. "Grantor" refers to DOE and "Grantee" refers to the RTC.)

A. Contamination in Ground Water and Surface Expressions of Ground Water

1. Contamination. The ground water underlying the site and the surface expressions of the ground water (the North Pond, South Pond, and wetland areas) are known by both parties to be contaminated with elevated levels of certain constituents resulting from the historical stockpiling of uranium ore and the disposal of process wastes from milling and concentrating activities. Following removal of the source of contamination, the accepted remedial action for eliminating the contamination is the natural flushing of the ground water over a period of 50–80 years (anticipated to be within regulatory standards between the years 2050 and 2080). Risk assessments performed concluded that the contaminants posed a threat to human health only if ingested by drinking the water.

2. Restriction. The Grantee shall not engage in any disturbance or use of any untreated ground water underlying the Property, including the drilling of wells, the excavation of soils that expose ground water, or the diversion of ground water through any means without express written consent of the CDPHE and the Grantor, its successors or assigns. This also includes, but is not limited to, restrictions on excavation of the underlying soils for their gravel content. Any request for consent to disturb or use any untreated ground water underlying the Property must include water quality data and a human health and ecological risk evaluation.

Grantor will construct signs at the South Pond, North Pond, and wetland areas to notify the public that no swimming, fishing, or drinking of the waters is permitted. Grantee and successors must maintain the signs until the State of Colorado approves the removal of the notification signs. Grantor will continue to monitor the water quality of the ponds, and, when the water quality meets State standards, request the State to approve removal of the notification signs.

Grantee shall not engage in any use of the surface expressions of ground water that might result in accidental consumption of the water, fish, or other aquatic species. This includes, but is not limited to, restrictions on fishing, swimming, activities that result in prolonged human contact with the water, hatchery operations for production of fish or other aquatic species for human consumption, and other recreational uses.

B. Building 12 Soil Contamination

1. Contamination. Grantor acknowledges that there is known contamination on the Property underlying the south end of Building 12 and covenants to remain solely responsible for the complete decontamination of these conditions, as well as any later-discovered contamination. The contamination, believed to be the residue of a stockpile of uranium ores, poses a potential threat of radioactive exposure to individuals excavating the soils. There is no threat to persons occupying the building and conducting routine business activities, nor is there any indication the residual contamination is impacting the ground water.

2. Restriction. Grantee shall not, under any circumstances without express written permission of CDPHE and the Grantor, engage in any activity that would result in the disturbance of soils or structures underlying the south end of Building 12. Grantor is required to remediate all contamination under and around Building 12 prior to termination of Grantor's lease of the building. Grantee accepts that the remediation will include demolition of Building 12 as the most cost-effective process to complete the remedial action and hereby agrees to accept this remediation approach. Grantor will not be responsible to rebuild the building or otherwise compensate the Grantee for the loss of the building.

C. Building 20 Soil Contamination

1. Contamination. Grantor acknowledges that there is known contamination on the Property beneath the southwest corner of Building 20 and covenants to remain solely responsible for the complete decontamination of the soils. The contamination, believed to be from mill tailings used as fill material to raise the elevation of a pond bank prior to erection of the building, poses a potential threat to individuals excavating the soils from exposure to radioactive materials. There is no threat to persons occupying the building and conducting routine business activities, nor is there any indication the residual contamination is impacting the ground water.

2. Restriction. Grantee and its assigns shall not, under any circumstances without express written permission of CDPHE and the Grantor, engage in any activity that would result in disturbance of soils or structures underlying the south end of Building 20. Prior to altering the structural integrity of the floor at the south end of Building 20, such permission must be obtained. When Grantor decides to vacate the building, Grantor will demolish the building and remediate contaminated materials beneath the building to within regulatory limits.

D. Building 7 Structural and Soil Contamination

1. Contamination. Grantor acknowledges that known contamination remains in a portion of this structure and covenants to remain solely responsible for the complete decontamination of the structure and the underlying soil. Surface contamination has been identified in the walls and structural roof members, on equipment, and in ductwork. Soil contamination beneath the building is expected on the basis of historical knowledge and one core hole. The contamination is derived from sample preparation activities conducted in this building in the 1950s through the mid 1970s in support of Federal uranium procurement activities. The contamination does not pose a health risk to current building occupants because it is either fixed, of low activity, or inaccessible.

2. Restriction. Grantor shall retain control of this structure until it has been remediated and the area can be released for unrestricted use.

E. Foil Sources in Abandoned Well

1. Contamination. Grantee acknowledges that there is known contamination in the form of two foil radium sources encased in an abandoned well at the site. The well was abandoned in accordance with State of Colorado requirements, and the sources were encased in the well with the approval of the State.

2. Restriction. Grantee shall not engage in any activity that disturbs the seal on the well encasement or the well itself without the express written consent of CDPHE and the Grantor.

V. Commitments

A. Cleanup Plan

DOE established an enforceable cleanup plan as described below. This plan can be modified by DOE, with concurrence from CDPHE.

1. Ground Water/Surface Water/Sediments

The selected remediation strategy is for natural flushing of the ground water, which has been predictively modeled to reduce constituents to acceptable levels within 50–80 years. As described in the *Draft Final Long-Term Surveillance*

*Plan for the U.S. Department of Energy Grand Junction, Colorado, Office Facility* (September 2000), found as Attachment C to the Request for Deferred Remediation application. Site ground water is regulated under State of Colorado Title 5, *Code of Colorado Regulations*, Part 1002-8, "Basic Standards for Ground Water," including secondary drinking water and agricultural standards; 40 CFR 192; and risk-based limits established by EPA Region 3 for manganese and vanadium.

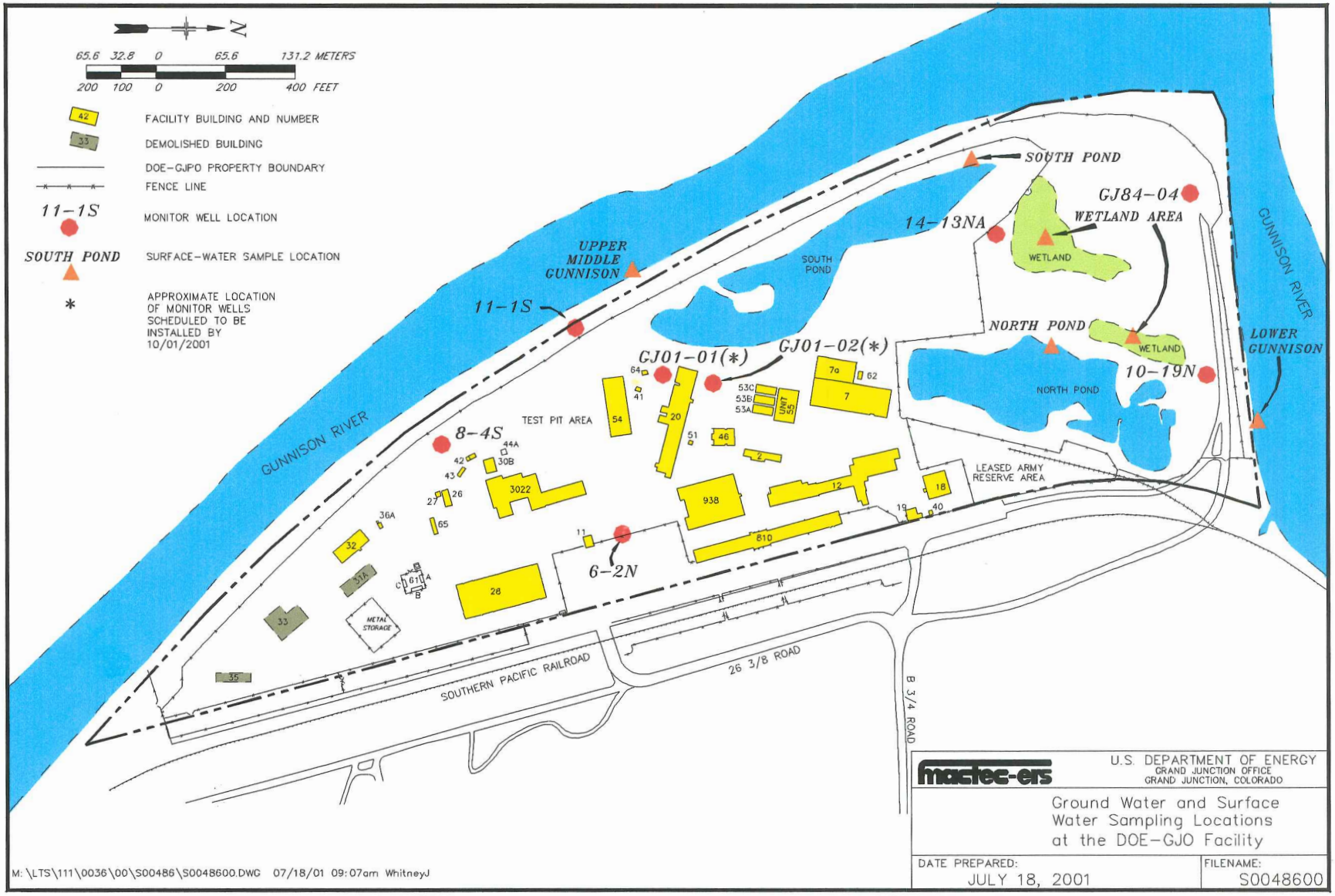
The ground water monitoring network consists of 6 monitor wells (8-4S, 11-1S, 6-2N, 14-13NA, GJ84-04, and 10-19N) that are distributed on-site and along the downgradient edges of the facility near the Gunnison River (see Figure 2).

The analytes to be monitored in ground water during each sampling event include the constituents of concern and other constituents that may be useful in assessing site conditions (see Table 1). In addition to these analytes, standard water quality indicators (pH, alkalinity, conductivity, temperature, and turbidity) will be measured during each sampling event.

*Table 1. Surface and Ground Water Analyte List*

| Analyte | Basis for Retention | | |
|---|---|---|---|
| | Exceeds Regulatory Limit | Poses Ecological Risk | Poses Human Health Risk |
| Arsenic | X | | X |
| Chloride | X | | |
| Gross Alpha | X | | |
| Iron | X | | |
| Manganese | X | X | X |
| Molybdenum | X | X | X |
| Nitrate | | | X |
| Selenium | X | | |
| Sulfate | X | | X |
| Total dissolved solids | X | | |
| Uranium | X | X | X |

Ground water monitoring at the GJO facility will be conducted annually, in late winter, for a minimum period of 5 years (through 2005). At the end of this period, DOE will evaluate monitoring results in consultation with the CDPHE to determine the requirements for future monitoring at the site. This will include a statistical evaluation of contaminant concentration trends. Criteria for modifying or terminating ground water and surface water monitoring will include (1) continued decrease in concentrations of constituents of concern as predicated and observed, (2) compliance with regulatory limits, and (3) no unacceptable risks to human health and the environment resulting from site-related contamination. The DOE will receive approval from the CDPHE prior to modification or termination of monitoring. Modification may include changing the number or location of sample points or the suite of analytes.


N
65.6 32.8 0 65.6 131.2 METERS
200 100 0 200 400 FEET
42 FACILITY BUILDING AND NUMBER
33 DEMOLISHED BUILDING
DOE-GJPO PROPERTY BOUNDARY
FENCE LINE
11-1S MONITOR WELL LOCATION
SOUTH POND SURFACE-WATER SAMPLE LOCATION
* APPROXIMATE LOCATION OF MONITOR WELLS SCHEDULED TO BE INSTALLED BY 10/01/2001
UPPER MIDDLE GUNNISON
GUNNISON RIVER
SOUTH POND
14-13NA
GJ84-04
WETLAND AREA
WETLAND
NORTH POND
10-19N
LOWER GUNNISON
11-1S
GJ01-01(*)
GJ01-02(*)
TEST PIT AREA
8-4S
6-2N
LEASED ARMY RESERVE AREA
SOUTHERN PACIFIC RAILROAD
26 3/8 ROAD
B 3/4 ROAD
METAL STORAGE
3022
938
810
28
7
7a
54
20
UNIT 55
M:\LTS\111\0036\00\S00486\S0048600.DWG 07/18/01 09:07am WhitneyJ
mactec-ers
U.S. DEPARTMENT OF ENERGY
GRAND JUNCTION OFFICE
GRAND JUNCTION, COLORADO
Ground Water and Surface Water Sampling Locations at the DOE-GJO Facility
DATE PREPARED: JULY 18, 2001
FILENAME: S0048600

The compliance strategy for surface waters at the GJO facility is also monitored natural flushing. The surface-water monitoring network includes two locations in the Gunnison River and one location each in the North Pond, South Pond, and wetland areas (see Figure 2). The analytes to be monitored in surface water during each sampling event are the same for ground water. Surface water quality must comply with the State's water quality standards for the Gunnison River. The frequency and duration of surface-water monitoring will be the same as for the ground water monitoring. Trend analyses will be performed on surface-water sampling results in conjunction with analysis of ground water sampling results.

In 2001, DOE will conduct sampling to establish baseline chemistry data for pond and wetland areas sediments. These locations will be sampled again when ground and surface water complies with regulatory limits to verify that pond and wetland areas sediments also comply with applicable limits. Sample locations will be selected to represent worst-case and average conditions (e.g., deep water, near shore, and intermittently inundated areas). Analytes are identified in the *Long-Term Surveillance Plan* (LTSP) and include arsenic, chloride, total chromium, gross alpha, magnesium, manganese, molybdenum, nitrate, selenium, sulfate, total uranium, and isotopic uranium. On the basis of the initial results, DOE will revise this LTSP to present sampling locations and results, and, if necessary, invoke a program for further sediment monitoring. The DOE will receive approval from the CDPHE for the sampling plan and, if necessary, any program designed to monitor sediment contamination.

2. Soil Contamination Under Building 12

Upon notice of termination of DOE's lease of Building 12, DOE will prepare a remedial design package (including schedule and budget) for demolition of Building 12, remediation of contaminated soils, and disposal of waste material at an approved disposal site (i.e., the Grand Junction Disposal Cell). Once the design is approved by CDPHE, DOE will commence demolition, soil removal, and disposal of waste.

3. Soil Contamination Under Building 20

a. If, within 3 years of the date of the Property sale to the RTC, the RTC determines that Building 20 is to be demolished, DOE will prepare a design package (including schedule and budget) for demolition of Building 20, remediation of underlying contaminated soils/structures, and removal of waste materials to an acceptable repository (i.e., the Grand Junction Disposal Cell). Demolition of the structure, removal of contaminated soil, and disposal of materials will take place after regulatory approval of the design package.

b. If, following year 3 of DOE transfer of ownership, Building 20 is vacant for longer than 6 months, the current owner will demolish the structure, and, upon completion, DOE will remediate contaminated materials under and around the structure. The DOE will prepare a design package (including schedule and budget) for remediation and disposal of waste at an approved repository (i.e., the Grand Junction Disposal Cell). Upon regulatory approval of the design package, DOE will remediate and dispose of contaminated materials.

4. Structural and Soil Contamination in Building 7

DOE plans to remediate the contaminated portion of Building 7 in 2001. Remediation will include demolition of the contaminated portion of the structure and removal of contaminated underlying soil. As much as 3,000 cubic yards of contaminated materials will be disposed of in the Grand Junction Disposal Cell. Associated with this activity will be disposal of approximately 1,100 cubic yards of stockpiled, contaminated materials.

5. Compliance with the CERCLA Process

DOE will continue to follow the intent of the CERCLA process on this non-NPL site, as has been done to date. The selected remedy for site ground water is identified in the *Grand Junction Projects Office Remedial Action Project Declaration for the Record of Decision and Record of Decision Summary* (April 1990) as natural flushing in a 50–80-year timeframe. The same document identifies, for the three contaminated buildings known at the time, that decontamination would be performed, and all wastes at the site would be disposed at the Grand Junction Disposal Cell. This remedy, of decontamination/demolition of structures, removal of contaminated soil/structural debris, and disposal at the Grand Junction Disposal Cell, has been followed during the entire site cleanup. The final cleanup identified in V.A, B, and C constitutes implementation of remedial action identified in the Record of Decision.

6. DOE commits that all necessary remedial actions will be taken in accordance with the specifics identified in this cleanup plan.

B. The Quitclaim Deed specifies that the Grantee shall allow DOE to perform any and all investigations, monitoring, and remedial actions necessary to meet DOE's commitment to remediate the site from contamination identified above. Further, restoration of surface/ground water, sediments, and contaminated material beneath Buildings 12 and 20 is the financial responsibility of DOE. DOE is financially responsible for demolition of Building 12 and Building 20.

C. The Quitclaim Deed specifies that DOE is responsible for remediating any previously unknown contamination attributed to its activities on the site. The Grantee is responsible for conducting remedial actions related to contamination that can be directly caused by its activities or its tenants' activities, subsequent to date of the deed transfer. Such activities are not within the scope of this Agreement.

D. The Offer to Purchase identifies the RTC's planned use of the Property and specifies that, if usage changes, DOE must re-evaluate its institutional controls for protectiveness of public health and the environment. If cleanup standards change, the responsibility for cleanup will be renegotiated.

E. The Quitclaim Deed specifies that DOE's institutional controls shall remain in-place regardless of site ownership. The Deed specifies that the RTC is also responsible for ensuring that the Deed restrictions are contained in successive transfers and that the RTC will notify DOE prior to transfer of the Property to another owner.

The Deed specifically states DOE's commitment to remediate contamination remaining on-site from DOE activities prior to the date of transfer, regardless of who owns the site in the future.

DOE concurs with the State of Colorado requirement that the United States, State of Colorado, and local governing bodies are third-party beneficiaries for the purposes of enforcing the land use restrictions until such time as the restrictions are determined by CDPHE to no longer be necessary to protect human health and the environment.

F. The Quitclaim Deed specifies that the RTC (and its successors and assigns) must allow DOE to perform its environmental response duties, as stated above in Section IV.B.

G. The Quitclaim Deed includes several indemnification clauses. DOE is responsible for remediations of "Site Substance(s)," as defined in the Deed, that were a result of DOE activities prior to site transfer. The Grantee is responsible for remediation of "Site Substance(s)" occurring during its ownership.

H. DOE commits that it will comply with this Enforceable Agreement and will not raise sovereign immunity as a defense to any action to enforce the Agreement.

I. DOE acknowledges that the Request for Deferred Remediation, in accordance with federal law, shall not increase, diminish, or affect in any manner any rights or obligations of a federal agency with respect to property proposed for transfer.

J. DOE commits that funding will be provided to CDPHE via a negotiated financial assistance agreement to cover costs for the agency to oversee implementation of DOE's institutional controls, monitoring and restoration activities associated with this Enforceable Agreement.

K. DOE commits that funding for monitoring, remedial action, and State oversight activities will be provided for via DOE's established annual budget request process.

Monitoring at the GJO facility is included in the scope and budget projections defined in the *Long-Term Surveillance and Maintenance (LTSM) Program Project Baseline Summary*. This document identifies a budget requirement of $128,000 per year for stewardship activities at the GJO facility, including environmental water monitoring, site inspections, management of institutional controls, and reporting.

Scope and budget for remediation of the radiological contamination remaining beneath Buildings 12 and 20 will be included in the budgeting submittals for stewardship operations at the GJO facility under the LTSM Program. Remediation estimates for Building 20 have been developed and will be inserted in the budget request when DOE is notified by the owner of a definite schedule to abandon that building. An estimate to demolish Building 12 will be developed during Fiscal Year 2001 and will be available to insert in the budget request when DOE has developed a definite schedule to vacate that building.

DOE funding is contingent upon congressional appropriations. However, DOE has committed to fund stewardship activities at least through 2070.

L. DOE commits to submitting an annual report to CDPHE summarizing monitoring activities (including ground water and surface water remediation trends), inspection activities, and any remediation activities. CDPHE commits to providing any comments to DOE within 45 days of receipt of the annual report.

[redacted]

for Donna Bergman-Tabbert, Manager
Department of Energy–Grand Junction Office

7/11/2001
Date

[redacted]

Jeff Edson, Manager
Remediation and Restoration Unit
Colorado Department of Public Health and Environment

8-01-01
Date

# Appendix B

# Routine Site Inspection Checklist

# 2021 INSPECTION CHECKLIST
# GRAND JUNCTION OFFICE, COLORADO, SITE

Status of Site Inspections

Date of this Revision: February 16, 2021

Last Annual Inspection: February 27, 2020
Inspector: S. Woods

Next Annual Inspection (Planned): February 23, 2021
Scheduled Inspector: H. Petrie

| No. | ITEM | ISSUE | ACTION |
|---|---|---|---|
| 1 | Access | The site is owned by the Riverview Technology Corporation (RTC) and the U.S. Department of Energy. | RTC was notified by email of the inspection date. |
| 2 | Site activity | DOE leases several buildings from the RTC. DOE owns Building 7. The Small Business Incubator leases the remaining buildings from RTC. | Be alert for vehicular traffic through the South Gate and around the Small Business Incubator buildings. |
| 3 | Specific site surveillance features | A survey monument; surface water warning signs around North Pond, South Pond, and wetland areas; 28 monitoring wells; and a well with radium foil that was decommissioned in place require inspection. | Check condition of the features and security of the monitoring wells. |

| No. | ITEM | ISSUE | ACTION |
|---|---|---|---|
| 4 | FIMS assets | DOE-owned FIMS assets consist of the monitoring wells, the decommissioned well and placard, and a storage shed next to Building 2. | A FIMS inspection will be conducted during the annual inspection. A separate inspection checklist will be provided for FIMS. The last inspection occurred during the FY 16 inspection. |
| 5 | Interior portions of the site | Surface water warning signs are posted around the North Pond, the South Pond, and the wetland areas as institutional controls.<br><br>The alluvial aquifer underlying the facility is contaminated and is being remediated by natural flushing. Excavations that could expose the groundwater require pre-approval by DOE and CDPHE. | Check for signs of trespass, vandalism, and fishing or other uses of the water. Evaluate condition of warning signs.<br><br>Check for signs of excavation. |
| 6 | Outlying area | The site is surrounded by private and municipal property. | Check for signs of activity, development, or land use changes adjacent to the site that could affect the natural flushing of the aquifer. |