



On this day, September 21, 2023,  
the U.S. Environmental Protection Agency (U.S. EPA)  
Determines that the

*North Railroad Avenue Plume (NRAP) Superfund Site Soil Study Area  
Is Ready for Commercial and Recreational Reuse*

Lisa Price  
Superfund and Emergency Management Division  
U.S. EPA Region 6

John Rhoderick  
Water Protection Division Director  
New Mexico Environment Department

This Ready for Reuse (RfR) Determination is for approximately 0.56 acres within tax parcels 1046120299445, 1046120294430 and 1046120306430 (hereafter referred to as the Soil Study Area) located within the North Railroad Avenue Plume Superfund (NRAP) site (the Site). This RfR Determination provides information that EPA has made a technical determination that the Soil Study Area, located in the city of Española in Rio Arriba County, New Mexico, is ready for a wide range of commercial and recreational uses such as restaurants, food services, farmers markets, cultural centers, retail spaces, parks, playgrounds and other non-residential uses. This RfR Determination is based on information established in EPA and New Mexico Environment Department (NMED) reports, specifically the 2001 Remedial Investigation Report, the 2001 Record of Decision (ROD), the 2008 Explanation of Significant Differences (ESD), the 2015 Final Source Area/Hot Spot Investigation Report, the 2020 Focused Remedial Investigation Report, the 2020 Five-Year Review Report, and the 2020 Operation and Maintenance Report.

EPA has made a technical determination that the Soil Study Area is ready for commercial and recreational uses because soil samples indicate cancer and non-cancer risks all fall within EPA acceptable risk ranges, subject to limitations identified below, as specified in the ROD, ESD and 2020 Five-Year Review Report: the NRAP RfR Soil Study Area is ready for a wide range of commercial use and recreational uses, consistent with current zoning and previous and current uses; the July 2001 New Mexico Office of State Engineer Order restricts the appropriation and transfer of water rights for permitting new groundwater wells and groundwater use within the entire Site, including the NRAP Soil Study Area; and future users must work with EPA and the State to accommodate and support ongoing monitoring and remediation at the Site. There is ongoing remediation of lingering source material within the Source Area and deep aquifer.

This RfR Determination is a technical decision document and an environmental status report. It does not have any legally binding effect, nor does it expressly or implicitly create, expand or limit any legal rights, obligations, responsibilities, expectations or benefits of any party. EPA assumes no responsibility for reuse activities or for any possible or potential harm that might result from reuse activities. EPA retains any and all rights to authorities it has, including, but not limited to, legal, equitable or administrative rights. EPA specifically retains any and all rights and authorities it has to conduct, direct, oversee and/or require environmental response actions in connection with the NRAP site, including instances when new or additional information has been discovered regarding the contamination or conditions that are no longer protective of human health or the environment for the uses identified in the RfR Determination.

The types of uses identified in this RfR Determination remain subject to: (i) applicable federal, state and local regulations, including, but not limited to, zoning ordinances and building codes; and (ii) title documents, including, but not limited to, easements, restrictions and institutional controls.

**Ready for Reuse Determination  
North Railroad Avenue Plume Soil Study Area at the  
North Railroad Avenue Plume Superfund Site**

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## **I. Executive Summary**

This Ready for Reuse (RfR) Determination is for approximately 0.56 acres within the broader North Railroad Avenue Plume (NRAP) Superfund site (the Site), within tax parcels 1046120299445, 1046120294430 and 1046120306430, hereafter referred to as the NRAP RfR Soil Study Area. The entire Site consists of dissolved contaminant plumes in a shallow alluvial aquifer and several zones of a deeper bedrock aquifer that cumulatively extend to a total depth of 260 feet. The plumes historically covered approximately 58 acres and extended about 0.75 miles from the Source Area. The identified source of contamination is the former Norge Town Laundry and Dry Cleaners facility (Norge Town) that spilled hazardous chemicals used in the dry-cleaning operation. The Site is in the city of Española in Rio Arriba County, New Mexico (see Figures 1 and 2). The NRAP RfR Soil Study Area is based on the results of surface and subsurface soil samples collected in and near the Source Area. The city of Española, the U.S. Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) are supportive of the RfR Determination for parcels 1046120299445, 1046120294430, and 1046120306430, otherwise identified as the Soil Study Area. The city of Española, EPA and NMED are supportive of reuse across the entire site as other areas are deemed appropriate.

The conditions summarized in this RfR Determination are based on limitations and requirements established in EPA and NMED decision documents and reports for the Site, including the 2001 Remedial Investigation Report, the 2001 Record of Decision (ROD), the 2008 Explanation of Significant Differences (ESD), the 2015 Final Source Area/Hot Spot Investigation Report, the 2020 Focused Remedial Investigation Report, the 2020 Five-Year Review Report, and the 2020 Operation and Maintenance Report. EPA has made a technical determination that the NRAP RfR Soil Study Area in Española, New Mexico, is ready for a wide range of commercial and recreational uses and that the remedy will remain protective of human health and the environment, subject to limitations identified below, as specified in the Site's ROD, ESD and 2020 Five-Year Review Report:

- 1) The NRAP RfR Soil Study Area is ready for commercial and recreational uses such as restaurants, food services, farmers markets, cultural centers, retail spaces, parks, playgrounds and other non-residential uses, consistent with current zoning and previous and current uses.
- 2) The July 2001 New Mexico Office of the State Engineer Order restricts the appropriation and transfer of water rights for permitting new groundwater wells and groundwater use across the entire Site, including the NRAP RfR Soil Study Area.
- 3) Future users must work with EPA and the state of New Mexico (the State) to accommodate and support ongoing monitoring and remediation at the Site. There is ongoing remediation of lingering source material within the Source Area and deep aquifer.

The Site is in an area that includes a mix of residential, light industrial and commercial properties in the city of Española in Rio Arriba County, New Mexico, and within Santa Clara Pueblo land. The Site is within the 100-year floodplain for the Rio Grande, as defined by the Federal Emergency Management Agency.

The Norge Town laundromat and dry-cleaning operation contaminated groundwater over the larger area with several volatile organic compounds (VOCs), including tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (DCE) and trans-1,2-DCE. Most of the contamination is in the form of dense non-aqueous phase liquid (DNAPL) trapped between soil particles in the shallow aquifer (between approximately 6 feet and 25 feet below ground surface [bgs]). The deeper contaminated groundwater aquifer is the sole-source drinking water aquifer for the city of Española, Santa Clara Pueblo and individual water supply wells near the Site. There are no active public water supply wells located within the plume. Land in the NRAP RfR Soil Study Area can safely support a wide range of commercial and recreational uses.

This RfR Determination is based on information in EPA and NMED reports. According to the Site's 2001 ROD, contaminant concentrations in surface and subsurface soils at and surrounding the Source Area were below EPA Region 6 health-based soil screening levels (regional screening levels [RSLs]) for direct contact. Therefore, they do not pose a health risk. In the Site's 2008 ESD, EPA indicated that significantly less soil contamination than expected was found at the Site. EPA re-sampled the soil and again confirmed contaminant concentrations were below RSLs. NMED's 2015 Final Source Area/Hot Spot Investigation Report provides soil data confirming that remaining soil contamination is well below the RSLs for commercial exposure. Therefore, the NRAP RfR Soil Study Area is ready for commercial and recreational uses.

U.S. EPA Region 6 issued this RfR Determination, effective September 21, 2023.

Approved by:

Date:

\_\_\_\_\_  
Lisa Price  
Superfund and Emergency Management Division  
U.S. EPA Region 6

Approved by:

Date:

\_\_\_\_\_  
John Rhoderick  
Water Protection Division Director  
New Mexico Environment Department

Site-related documents are available online at EPA's profile page for the Site, at <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0604299>, as well as at the Site's information repository, Española Public Library, located at 313 N. Paseo de Oñate in Española. More information is available from Mark Purcell, EPA's remedial project manager (RPM) for the Site, at (469) 553-7211 and [purcell.mark@epa.gov](mailto:purcell.mark@epa.gov).

## **II. Site and Parcel Location**

The entire Site is in the downtown area of the city of Española in Rio Arriba County, New Mexico. The Site is within the 100-year floodplain for the Rio Grande, as defined by the Federal Emergency Management Agency. The Site is also located on fee lands in Española and within the boundary of Santa Clara Pueblo.

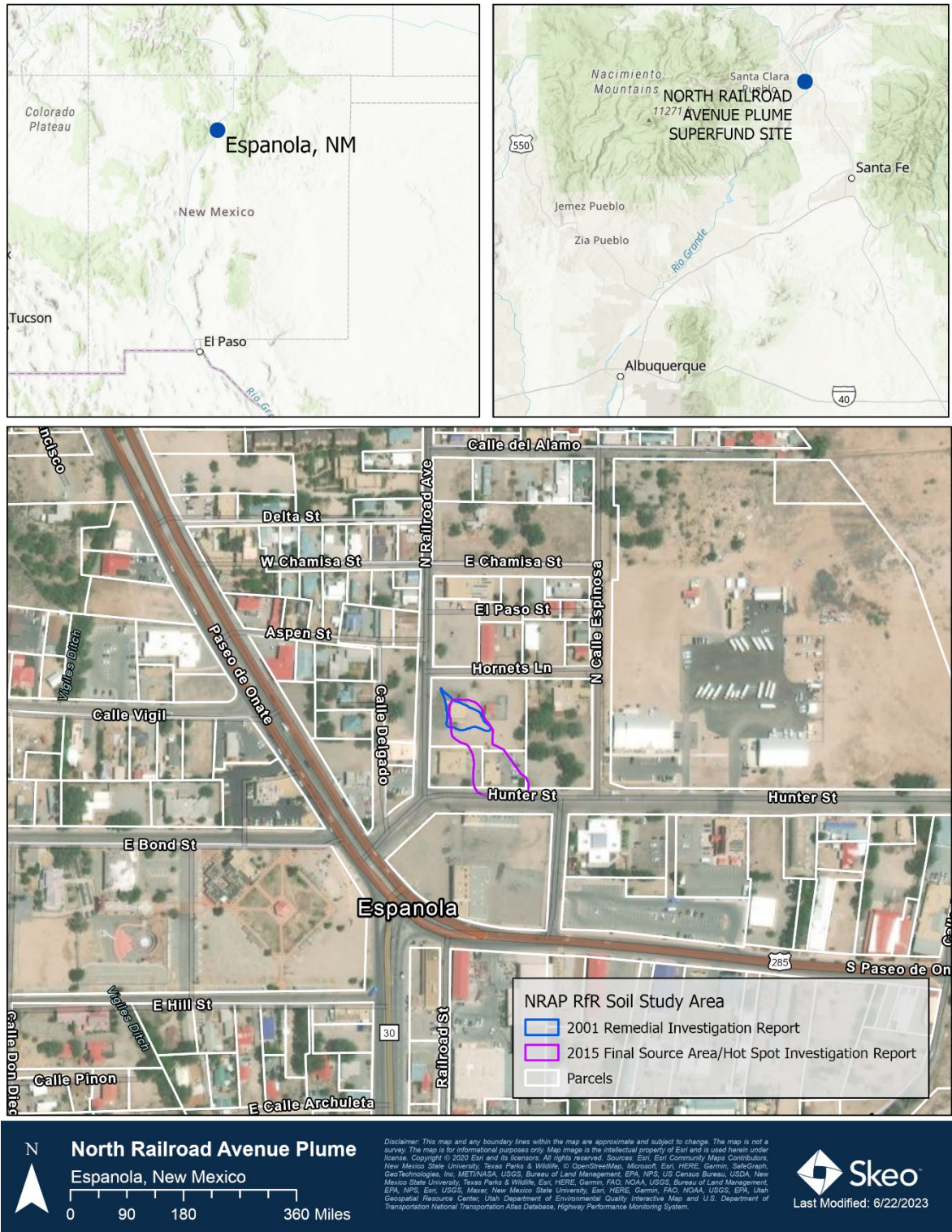
EPA finalized the Site's listing on the Superfund program's National Priorities List (NPL) in January 1999. The entire Site consists of dissolved contaminant plumes in a shallow alluvial aquifer and several zones of a deeper bedrock aquifer that cumulatively extend to a total depth of 260 feet. The plumes historically covered approximately 58 acres and extended about 0.75 miles from the Source Area. The groundwater plumes impact the sole-source drinking water aquifer for the city of Española, the Santa Clara Pueblo and nearby rural populations.

EPA identified the source of contamination as the former Norge Town Laundry and Dry Cleaners facility (Norge Town facility) located at 113 North Railroad Avenue in downtown Española (see Figure 1). The Norge Town facility spilled hazardous chemicals used in the dry-cleaning operation. The Norge Town facility was occupied and operated by various individuals as a dry-cleaning facility from 1970 to June 2007, when it ceased operations.

This RfR Determination is for approximately 0.56 acres, hereafter referred to as the NRAP RfR Soil Study Area, which is near the former Norge Town facility located at 113 North Railroad Avenue. The NRAP RfR Soil Study Area includes property within tax parcels 1046120299445, 1046120294430 and 1046120306430 (see Figure 2), where soil samples indicate it is safe for a wide range of commercial and recreational uses such as restaurants, food services, farmers markets, cultural centers, retail spaces, parks, playgrounds and other non-residential uses, consistent with current zoning and previous and current uses.

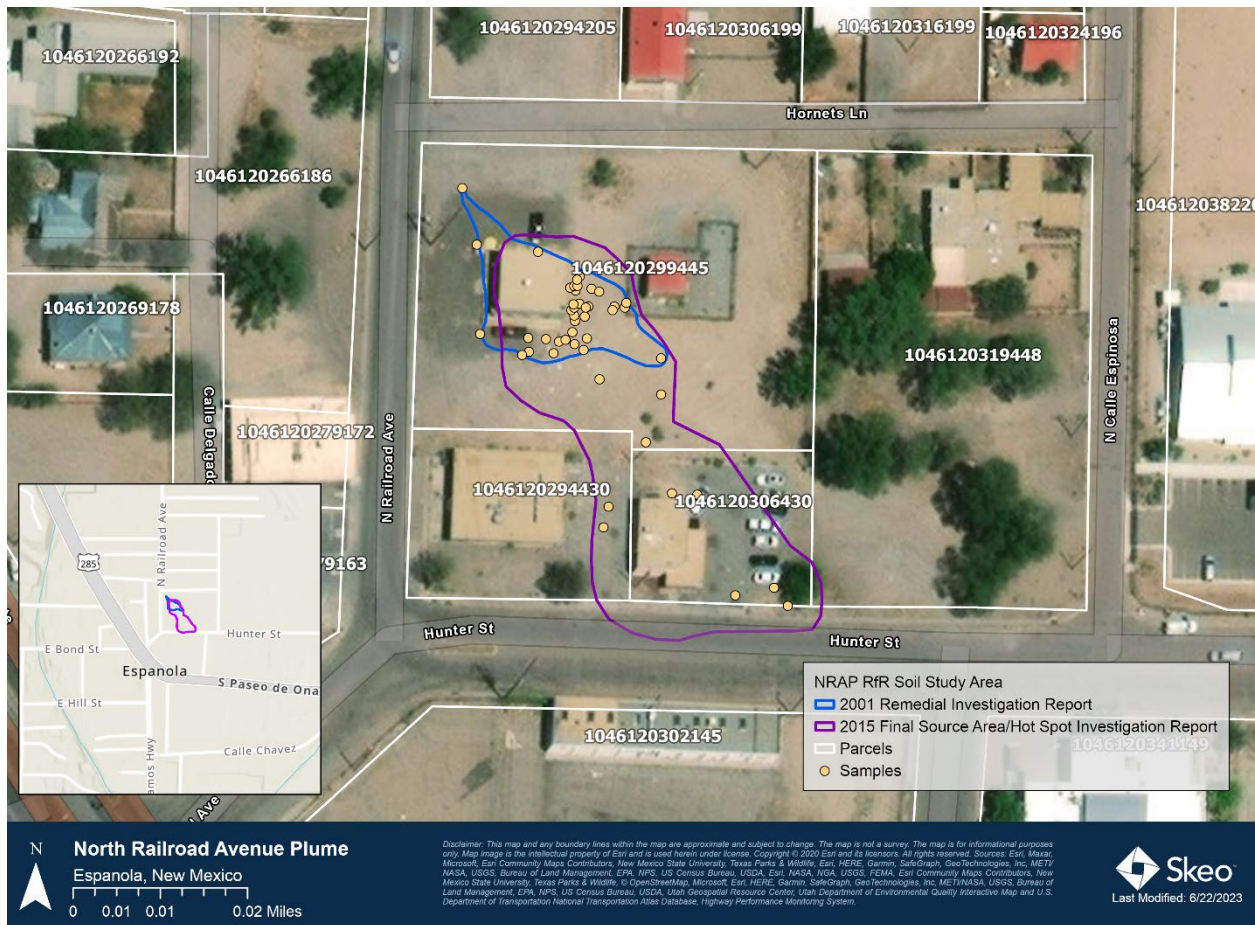
EPA provided soil sample locations in the Site's 2001 Remedial Investigation Report. NMED provided soil sample locations in the Site's 2015 Final Source Area/Hot Spot Investigation Report.

**Figure 1: Site Location Map**



*Disclaimer:* This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only.

**Figure 2: Site Parcel Map**



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only.

### III. Site Summary

#### *Site and Contaminant History*

Groundwater contamination was first discovered in 1989. Tetrachloroethene (also known as perchloroethene or PCE) and one of its degradation byproducts, trichloroethene (TCE), were detected in two municipal drinking water supply wells for the city of Española. The wells were taken offline and have been removed from the drinking water supply system since the discovery. The New Mexico Environmental Improvement Division (NMEID), predecessor to NMED, and NMED’s Ground Water Quality Bureau (GWQB) led several investigations from 1990 to 1998 to determine the source and extent of the contamination.

The source of the contamination was determined to originate from the Norge Town facility, which operated from about 1970 until its closure in August 2007. The suspected release point of the dry-cleaner solvent PCE was a lint trap located against the eastern edge of the former dry-cleaning building. Most of the contaminant mass occurred as residual-phase DNAPL trapped between soil particles in the Shallow Aquifer (between approximately 6 feet and 25 feet bgs) immediately adjacent to the eastern edge of the Norge Town facility. EPA estimated the volume of DNAPL to be approximately 27 gallons (365 pounds) in the Source Area, based on the high soil concentrations and high dissolved-phase PCE concentrations in groundwater. However, EPA did not observe free-phase DNAPL during remedial action construction work, which included the drilling of 11 boreholes within an approximate 2,000-square-foot area east of the Norge Town facility, or in the groundwater extracted from wells installed in four of these 11 borings.

### *Description of Risks*

Contamination from the NRAP Source Area affected the public water supply for the city of Española and Santa Clara Pueblo, which needed protection from further contamination. Two city of Española public water supply wells impacted by Site contamination were taken offline in the late 1980s. There are no active public water supply wells located within the plume. Current public supply wells are located upgradient of the contamination and monitored for potential impacts.

Site contaminants of concern (COCs) are PCE and TCE in groundwater. Potential PCE cancer risks exceed the EPA benchmark of concern if groundwater from the shallow and deep aquifers is used for residential purposes. This exposure risk applies to children and adults related to domestic uses, including ingestion, inhalation, bathing, irrigation, and ingestion of home-grown produce. Excessive non-cancer hazards from PCE and TCE exposure could result from domestic use of the groundwater in the shallow aquifer. Non-cancer exposure hazards apply to both children and adults for similar routes.

There are no risks associated with a wide range of commercial and recreational land uses within the NRAP RfR Soil Study Area, the subject of this RfR Determination. According to the Site's 2001 Remedial Investigation Report and 2001 ROD, concentrations in sampled surface and sub-surface soils were below Region 6 screening values for direct contact and were not found to pose a health risk. During the Site's 2008 ESD, EPA found significantly less soil contamination than expected. EPA re-sampled the soil and again confirmed it to be within acceptable soil screening levels. NMED's 2015 Final Source Area/Hot Spot Investigation Report provides soil data confirming that any remaining contamination in soils is well-below RSLs for commercial exposure, meaning the land identified in the NRAP Soil Study Area can safely support a wide range of commercial and recreational uses.

### *Summary of Cleanup Activities*

Table 1 summarizes relevant events and important dates in the Site's history. NMED implemented the remedy through a State Cooperative Agreement with EPA.



**Table 1: Chronology of Site Events**

<b>Event</b>	<b>Date</b>
Norge Town Facility began dry-cleaning operations	1970
Initial discovery of contamination – chlorinated solvent contamination was discovered in groundwater samples collected from two city of Española municipal supply wells	1989
Preliminary assessment performed by the New Mexico Environmental Improvement Division (predecessor to NMED)	July 1990
NMED submitted Screening Site Inspection Report to EPA	March 1992
NMED submitted Listing Site Inspection Report to EPA	April 1993
NMED performed state-lead removal actions	June 1997
EPA finalized Site’s listing on the NPL	January 1999
Site’s remedial investigation was completed	January 2001
Site’s feasibility study was completed	June 2001
EPA issued the Site’s ROD	September 2001
The Site’s remedial design was completed	December 2003
On-site remedial action construction started	July 2005
EPA issued the Site’s ESD	March 2008
Initial substrate injections to all four treatment systems took place	April 2008
Site achieved EPA’s construction completion milestone	June 2008
EPA determined the Site’s remedy to be “operational and functional”	June 2009
Site’s first Five-Year Review Report completed by EPA	June 2010
Substrate injections completed in various parts of the aquifer	April 2008 – April 2013
Site’s second Five-Year Review Report completed by EPA	July 2015
NMED completed Final Source Area and Hot Spot Investigation Report for soil and water sampling	October 2015
Carbon substrate injections at the Source Area and Hot Spot completed	April 2017 and September 2017
Additional investigation of the deep-zone aquifer completed	August 2019
Evaluation of carbon substrate injections at the Source Area/Hot Spot completed	September 2019
Deep Zone Monitored Natural Attenuation Study completed	October 2019
Enhanced treatment strategy implemented by NMED	March 2020
Decommissioning and demolition of Source Area and Hot Spot infrastructure	March 2020
Site’s third Five-Year Review Report completed by EPA	August 2020
EPA Region 6 EPA supported reuse investigations for the city of Española to document future use goals and potential barriers to redevelopment	February 2022

### Removal Actions

There have been no CERCLA removal actions at the Site. In 1997, NMED performed a state-lead removal action to remove the water and sludge from the dry-cleaner lint trap and then temporarily abandoned the lint trap in place by filling it with sand.<sup>1</sup> The lint trap was subsequently excavated and removed during remedial action construction.

### Remedial Actions

EPA proposed listing the Site on the NPL on July 30, 1998. EPA finalized the Site’s listing on the NPL on January 19, 1999. EPA completed the Site’s remedial investigation (RI) in January

<sup>1</sup> A lint trap is a specialized holding tank set below grade (ground surface) to remove excessive amounts of lint and silt that could interfere with proper drainage of wastewater. It is used in commercial establishments such as laundromats, dry cleaners and apartment complexes.

2001 and the Site's feasibility study (FS) in June 2001. EPA signed the Site's ROD in September 2001. It identified the selected remedy for the Site. The ROD defined the Site as one operable unit to address the following areas: Source Area soil and groundwater, the Hot Spot downgradient of the Source Area in the shallow aquifer, and the downgradient dissolved-phase shallow plume and four deep-zone groundwater plumes. EPA identified the residual PCE, or DNAPL, in the Source Area and the downgradient dissolved-phase groundwater plumes as the principal threat wastes at the Site. The NRAP RfR Soil Study Area, which is the focus of this RfR Determination, covers approximately 0.56 acres on or near the Source Area.

The final remedy for the Site, which addresses contaminated groundwater, consists of enhanced in-situ bioremediation across the entire Site. This modified the initial remedy identified for the Source Area in the Site's 2001 ROD because in-situ bioremediation was determined to be sufficient for all areas of the Site based on data collected during installation of the remedial systems. The areas targeted for cleanup are the Source Area and Hot Spot soils and groundwater contaminated with DNAPL chemicals, a dissolved-phase plume in the shallow aquifer, and dissolved-phase plumes in several water-bearing zones in the deep-zone aquifer.

While soils do not pose a concern to commercial and recreational users of the NRAP Soil Study Area, groundwater cleanup is ongoing. Based on results from the Site's 2020 Five-Year Review and 2020 Operation and Maintenance Report, EPA and NMED expect more remediation will be needed to address residual groundwater contamination in and near the Source Area and deep aquifer.

#### *Redevelopment/Reuse History*

The city of Española is located along a major thoroughfare between Taos and Albuquerque in an agricultural valley. The city has a vision to transform its downtown area into a thriving commercial and cultural hub that leverages regional tourism to boost the local economy and increase quality of life. The revitalization of the downtown plaza is a key focus for the city. However, the presence of a Superfund site has raised concerns, making it difficult to promote development of the area and attract potential developers and investors. Owners of properties within the Site have experienced challenges selling and leasing their properties.

EPA and NMED support the reuse of the Site. To support the city's vision, EPA's Superfund Redevelopment Program facilitated a reuse planning process that brought together local, regional, state and federal partners to share potential resources and strategies to support the city's revitalization initiatives. The Action Plan documents the city's revitalization goals related to tourism, downtown revitalization and housing, and summarizes needs, opportunities, next steps and resources. The Action Plan serves as a roadmap for public and private investment.

The city is well-positioned to leverage existing planning efforts to pursue grants and attract investment and development. The city is pursuing technical assistance from the New Mexico Mainstreet Program to develop an investment plan that will include a refined plaza plan with community involvement and that focuses on the history of the tri-cultures of the Española valley (Pueblo, Spanish and Anglo). An anticipated city zoning update may include overlay zones to

support revitalization goals. The Department of Transportation (DOT) intersection improvements planned for 2023 will include pedestrian safety improvements, and the city has existing concept plans to stimulate public and private investment. EPA and NMED are supportive of all of these reuse goals.

#### **IV. EPA's Basis for the RfR Determination**

This RfR Determination is based on information established in EPA reports, specifically the Site's September 2001 ROD, September 2008 ESD and 2020 Five-Year Review Report, as well as NMED's 2015 Final Source Area/Hot Spot Investigation Report. According to the 2001 ROD, concentrations in surface soils at the NRAP Source Area were below Region 6 screening values for direct contact and therefore were not found to pose a health risk. During the 2008 ESD, EPA found significantly less soil contamination than expected. EPA re-sampled the soil and again confirmed it to be within acceptable soil screening levels. NMED's 2015 Final Source Area/Hot Spot Investigation Report provides soil data that confirm that any remaining contamination in soils is well below RSLs for commercial exposure, meaning the land identified in the Soil Study Area can safely support a wide range of commercial and recreational uses.

As part of annual operation and maintenance (O&M) requirements, NMED collected eight-hour indoor air samples at two buildings around the Source Area in January 2020. All indoor air samples taken from commercial buildings as part of this effort indicate that the buildings are safe for commercial use and for uses identified in this RfR Determination.

Based on information available to EPA and NMED, the NRAP Soil Study Area is ready for a wide range of commercial and recreational uses.

#### **V. Ongoing Limitations and Responsibilities Previously Established by EPA**

##### *Institutional and Engineering Controls*

The July 2001 New Mexico Office of State Engineer Order restricts the appropriation and transfer of water rights for permitting new groundwater wells and groundwater use across the entire Site, including the NRAP RfR Soil Study Area.

##### *O&M Requirements*

Current O&M requirements include the operational aspects of the enhanced reductive dechlorination (ERD) treatment and groundwater sampling activities for the entire Site, which includes areas covered by this RfR Determination. NMED also collects indoor air samples as needed to ensure the safety of current users.

EPA transferred O&M responsibilities to NMED in 2019. NMED oversees O&M activities for four remedial action systems:

- The Source Area treatment system addresses adsorbed DNAPL and dissolved-phase groundwater contamination near the dry-cleaner release area. This system currently consists of several injection wells. Additional injection wells may need to be installed in the future to address residual Source Area contamination.
- The Hot Spot treatment system was an ERD recirculation system designed to address the dissolved-phase plume between the Source Area and Hunter Street. It encompassed an area of approximately 56,000 square feet. NMED completed decommissioning and demolition of all Hot Spot injection wells, extraction wells and associated remediation infrastructure from November 2019 to November 2020.
- The biocurtain treatment system was an ERD recirculation system designed to address the dissolved-phase shallow aquifer plume approximately 1,500 feet southeast of the Source Area and Hot Spot systems. NMED completed decommissioning and demolition of all biocurtain injection wells, extraction wells and associated remediation infrastructure from November 2019 to November 2020. A limited number of biocurtain monitoring wells remain on site.
- The deep-zone ERD injection wells are individual wells intended to address the contamination in the deeper aquifer zones. The wells are situated across the deep zone plumes at locations including (but not limited to) the Plaza de Española, the former Hunter Ford property, and the intersection of Railroad Avenue and Calle Chavez. Additional injection wells may need to be installed for future deep zone remedial injections.

In March 2020, NMED completed injections as a pilot test of an enhanced treatment strategy (ETS) to address the deep zone and residual contamination in the Source Area. NMED continues to assess strategies for addressing remaining contamination and will maintain the current annual groundwater sampling schedule and monitoring well network.

## **VI. Provisos**

This RfR Determination is a technical document and does not have any legally binding effect. Further, it does not expressly or implicitly change, create, expand or limit any legal rights, obligations, responsibilities, expectations or benefits of any party. EPA assumes no responsibility for reuse activities and/or for any potential harm that might result from reuse activities. EPA retains any and all rights and authorities it has, including, but not limited to, legal, equitable or administrative rights. EPA specifically retains any and all rights and authorities it has to conduct, direct, oversee and/or require environmental response actions in connection with the Site, including the Soil Study Area.

The types of uses identified as protective in this RfR Determination remain subject to: (i) applicable federal, state and local regulations; and to (ii) title documents, including, but not limited to, easements, restrictions and institutional controls.

This RfR Determination is based on all information currently available to EPA. Should conditions change or new information become available that indicates re-evaluation is necessary, this RfR Determination will no longer be valid.

## APPENDIX A

### ACRONYMS AND ABBREVIATIONS

bgs	Below Ground Surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Contaminant of Concern
DCE	Dichloroethylene
DNAPL	Dense Non-Aqueous Phase Liquid
DOT	Department of Transportation
EPA	United States Environmental Protection Agency
ERD	Enhanced Reductive Dechlorination
ESD	Explanation of Significant Differences
ETS	Enhanced Treatment Strategy
EVO	Emulsified Vegetable Oil
FS	Feasibility Study
GWQB	New Mexico Environment Department Ground Water Quality Bureau
NMED	New Mexico Environment Department
NMEID	New Mexico Environmental Improvement Division
NPL	National Priorities List
NRAP	North Railroad Avenue Plume
O&M	Operation and Maintenance
PCE	Tetrachloroethylene
PRP	Potentially Responsible Party
RfR	Ready for Reuse
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	Regional Screening Level
TCE	Trichloroethylene
VOC	Volatile Organic Compound

## **APPENDIX B**

### Institutional Control Moratorium

STATE OF NEW MEXICO  
OFFICE OF THE  
STATE ENGINEER

IN THE MATTER OF NEW GROUND WATER )  
APPROPRIATIONS AND APPLICATIONS TO )  
TRANSFER WATER RIGHTS TO EXISTING )  
GROUND WATER WELLS IN CERTAIN )  
AREAS OF ESPANOLA, NEW MEXICO )  
NORTHERN RIO GRANDE BASIN )

STATE ENGINEER ORDER

WHEREAS, on the 29th day of June, 2001, the State of New Mexico Environment Department did request that the State Engineer restrict permitting of new wells within certain boundaries in Espanola, New Mexico identified as the North Railroad Avenue Plume (NRAP) Superfund Site within which the groundwater is contaminated with tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (c-1,2-DCE) and trans-1,2-dichloroethene (t-1,2-DCE). Both PCE and TCE levels are above drinking water standards; and

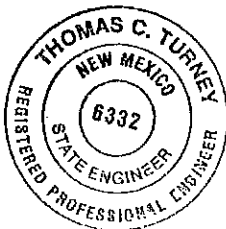
WHEREAS, the State Engineer determined that, within these certain boundaries, restricting new wells, including Section 72-12-1 (NMSA) wells, and restricting transfers which increase the entitlement from existing wells are in the interest of safety and the protection of life and property within the state of New Mexico; and

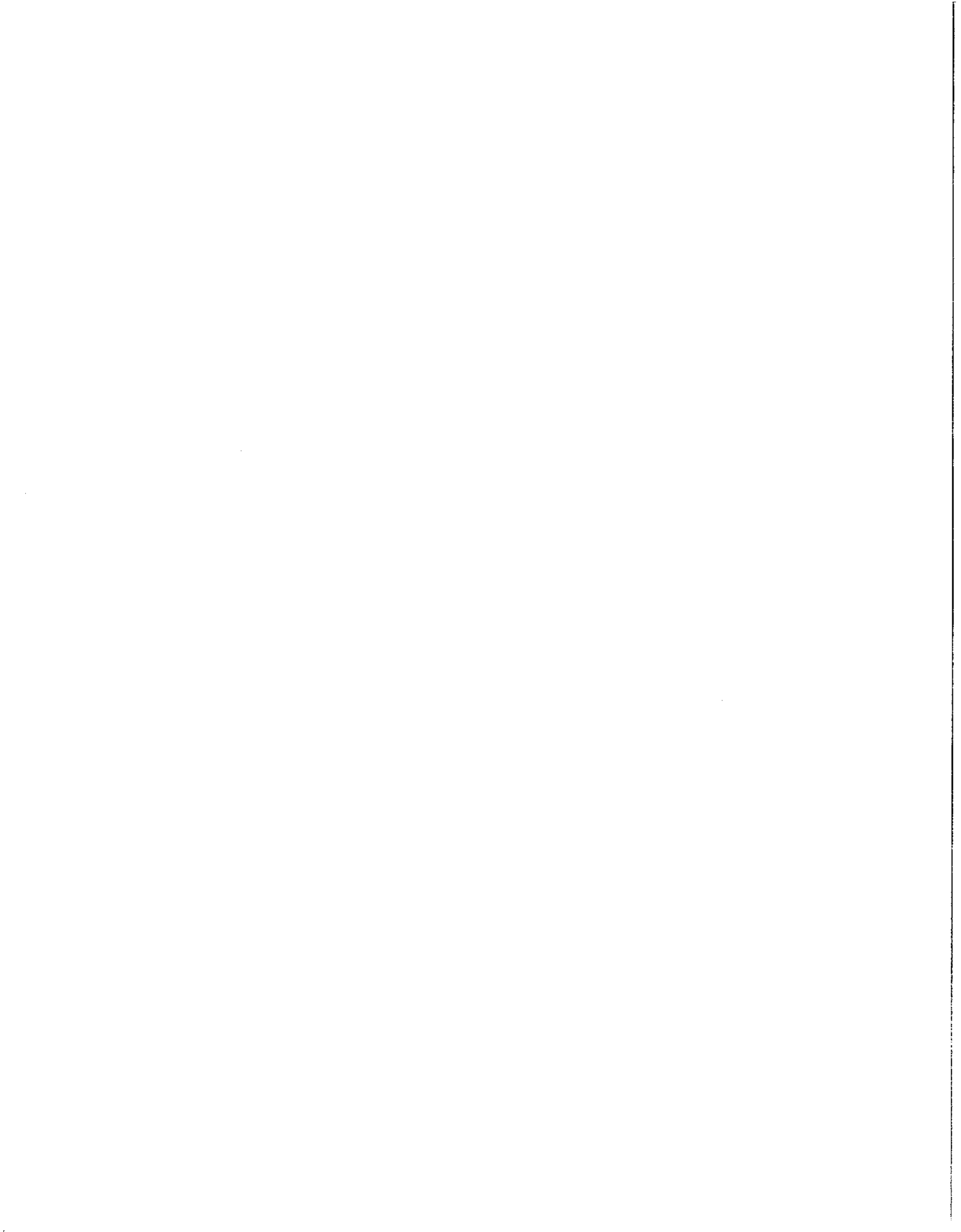
NOW THEREFORE, IN THE INTEREST OF SAFETY AND PROTECTION OF LIFE AND PROPERTY, IT IS HEREBY ORDERED that no new appropriations of ground water, including new Section 72-12-1 (NMSA) wells, and no transfers of either surface water or ground water to existing wells will be allowed within the area described as follows:

The SW¼ of NW¼ of SE¼, Section 3, Township 20 North, Range 8 East;  
the SE¼ of NW¼ of SE¼, Section 3, Township 20 North, Range 8 East;  
the SE¼ of SW¼ of Section 3, Township 20 North, Range 8 East;  
the SW¼ of SE¼ of Section 3, Township 20 North, Range 8 East;  
the NW¼ of NE¼ of Section 10, Township 20 North, Range 8 East;  
and the SW¼ of NE¼ of Section 10, Township 20 North, Range 8 East.

WITNESS my hand and official seal this 12TH day of July, 2001.

*Thomas C. Turney*  
THOMAS C. TURNEY, P.E.  
NEW MEXICO STATE ENGINEER









GARY E. JOHNSON  
GOVERNOR

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**

*Ground Water Quality Bureau*  
*Harold Runnels Building*  
*1190 St. Francis Drive, P.O. Box 26110*  
*Santa Fe, New Mexico 87502-6110*  
--- *Telephone (505) 827-2918*  
*Fax (505) 827-2965*



PETER MAGGIORE  
SECRETARY

PAUL R. RITZMA  
DEPUTY SECRETARY

June 29, 2001

Paul Saavedra  
Water Resource Manager, Water Rights Division  
Office of the State Engineer  
Bataan Memorial Building, Rm. 101  
Santa Fe, New Mexico 87504

**RE: Implementation of Institutional Controls at the North Railroad Avenue Plume Superfund Site in Espanola, New Mexico.**

Dear Mr. Saavedra

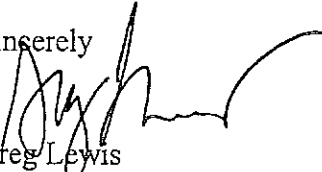
The New Mexico Environment Department (NMED) in cooperation with the United States Environmental Protection Agency (EPA) and the Santa Clara Pueblo is working towards remediation at the North Railroad Avenue Plume (NRAP) Superfund Site in Espanola, New Mexico. Groundwater at the site is contaminated with tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (c-1,2-DCE), and trans-1,2-dichloroethene (t-1,2-DCE). Both PCE and TCE are above drinking water standards. NMED has prepared this letter to request that the New Mexico Office of the State Engineer implement certain institutional controls at the site. NMED requests that the Office of the State Engineer issue an order to restrict permitting of new wells within the boundaries of the contaminated groundwater plume at the NRAP site in order to protect human health. We request that this order to restrict permitting of wells continue until the site has met remediation goals and ground water contaminant concentrations are below maximum contaminant levels (MCLs). This may take more than 30 years.

Attached with this letter is a figure that displays the boundary of the contaminated ground water plume at the NRAP site, and the plume's location with regard to the Township Range Section grid. The entire plume is located within Sections 3 and 10 of Township 20 north, Range 8 east. The quarter sections within Sections 3 and 10 that more accurately define the plume area include:

SW1/4, NW1/4, SE1/4 of Section 3  
SE1/4, NW1/4, SE1/4 of Section 3  
SE1/4, SW1/4 of Section 3  
SW1/4, SE1/4 of Section 3  
NW1/4, NE1/4 of Section 10  
SW1/4, NE1/4 of Section 10

If possible, please respond to this letter by July 13, 2001. If you have any questions or need more information about the site, please call me at (505) 827-1758 or Chris Meehan of my staff at (505) 476-3777.

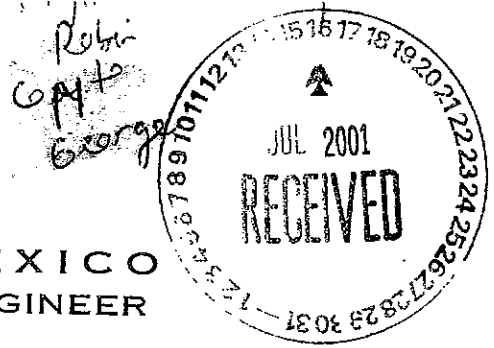
Sincerely



Greg Lewis

Director, Water and Waste Management Division

Cc. Robin Brown, NMED  
Petra Sanchez, EPA  
Joseph Chavarria, Santa Clara Pueblo



STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER  
SANTA FE

THOMAS C. TURNEY  
State Engineer

July 13, 2001

BATAAN MEMORIAL BUILDING, ROOM 101  
POST OFFICE BOX 25102  
SANTA FE, NEW MEXICO 87504-5102  
(505) 827-6175  
FAX: (505) 827-6188

Greg Lewis  
Director, Water and Waste Management Division  
Environment Department  
P.O. Box 26110  
Santa Fe, NM 87502-6110

Re: North Railroad Avenue Plume Superfund Site in Espanola, New Mexico


Dear Mr. Lewis:

Your June 29, 2001 letter requests the Office of the State Engineer restrict permitting of new wells within the boundaries of the contaminated ground water plume at the North Railroad Avenue Plume (NRAP) Superfund Site in Espanola, New Mexico. The restriction would be imposed to protect human health.

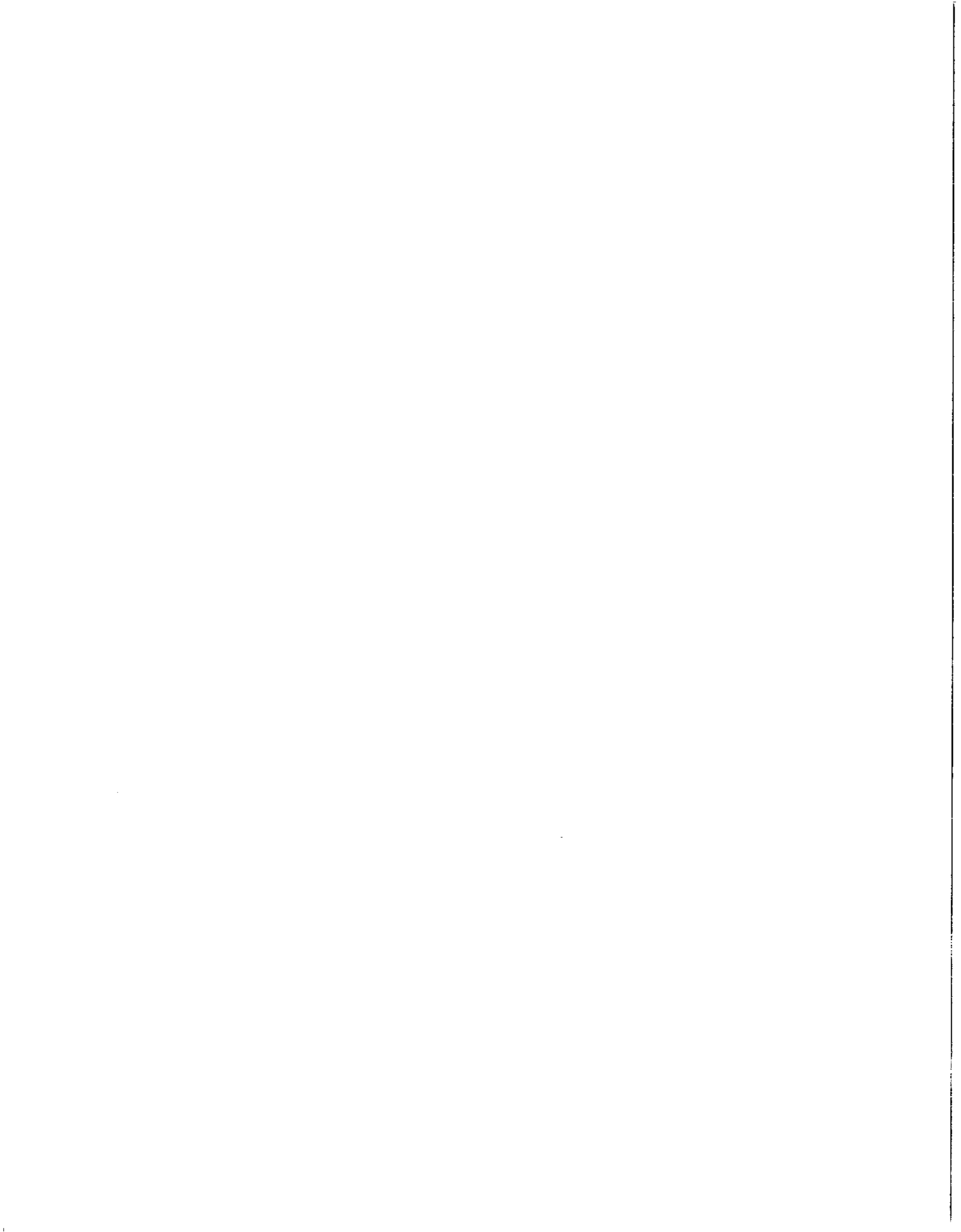
Attached for your information is an Order signed this date which restricts the drilling of wells for new appropriations, including Section 72-12-1 NMSA wells and also restricts the transfer of water to existing wells within the boundaries of the NRAP.

This Order will be distributed to the Office of the State Engineer staff and District Offices who administer this area. A copy will also be sent to the City of Espanola.

Please let me know if further discussion would be helpful.

Sincerely,  
  
Paul Saavedra  
Chief, Water Rights Division

Cc: John R. D'Antonio Jr., OSE  
Mary Young, OSE



## **APPENDIX C**

### **References**

Remedial Investigation Report. North Railroad Avenue Plume. Española, New Mexico. Prepared by Duke Engineering and Services. January 2001.

Record of Decision. North Railroad Avenue Plume. Española, New Mexico. September 2001.

Explanation of Significant Differences (ESD). North Railroad Avenue Plume. Española, New Mexico. March 2008.

Final Source Area/Hot Spot Investigation Report. North Railroad Avenue Plume. New Mexico. Prepared by CDM Smith. October 2015.

Focused Remedial Investigation Report. North Railroad Avenue Plume. Española, Rio Arriba County, New Mexico. Prepared by EA Engineering, Science, and Technology, Inc. September 2020.

Third Five-Year Review Report. North Railroad Avenue Plume. Española, Rio Arriba County, New Mexico. Prepared by U.S. Environmental Protection Agency. June 2020.

2020 Operation and Maintenance Report. North Railroad Avenue Plume. Española, New Mexico. December 2020. Prepared by New Mexico Environment Department Ground Water Quality Bureau.