

STATEMENT OF BASIS

**KINDER MORGAN CO₂ COMPANY
DWD-1
DOLORES COUNTY, CO**

EPA PERMIT NO. CO12182-08833

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This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

EPA UIC permits regulate the injection of fluids into underground injection wells so that the injection does not endanger underground sources of drinking water. EPA UIC permit conditions are based upon the authorities set forth in regulatory provisions at 40 CFR Parts 144 and 146, and address potential impacts to underground sources of drinking water. Under 40 CFR 144.35 Issuance of this permit does not convey any property rights of any sort or any exclusive privilege, nor authorize injury to persons or property of invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which the content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

Upon the Effective Date when issued, the Permit authorizes the construction and operation of injection wells so that the injection does not endanger underground sources of drinking water, governed by the conditions specified in the Permit. The Permit is issued for ten (10) years or unless terminated for reasonable cause under 40 CFR 144.39, 144.40 and 144.41.

PART I. General Information and Description of Facility

Kinder Morgan CO₂ Company
17801 Hwy 491
Cortez, CO 81321

on

June 21, 2010

submitted an application for an Underground Injection Control (UIC) Program Permit or Permit Modification for the following injection well or wells:

DWD-1
240' FNL & 240' FEL, NE/4, S19, T40N, R17W
Dolores County, CO

The application, including the required information and data necessary to issue or modify a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed and determined by EPA to be administratively complete.

Kinder Morgan CO₂ Company LP proposes converting the DWD-1 well from a former Leadville production well, to a Leadville-Ouray, Undifferentiated Devonian (Elbert), and Cambrian Formation injection well.

Kinder Morgan CO₂ Company LP (Kinder Morgan) is involved in the extraction of oil and gas from subsurface reservoirs. Kinder Morgan has determined that the naturally occurring carbon dioxide (CO₂) can be produced and economically used as an enhanced oil recovery agent.

The CO₂ field is leased under provisions of standard oil and gas leases from the Bureau of Land Management (BLM) and private parties. Existing and proposed production operations (from approximately 14 wells in the Leadville and Ouray Formations) are expected to result in the recovery of naturally-occurring gases consisting of 98.37% carbon dioxide (CO₂), 1.38% nitrogen (NO₂) and 0.25% methane (CH₄). These produced gases shall be piped to a cluster facility where free water is separated out using gravity separation. The liquid and vapor CO₂ shall be treated with Diethylene Glycol (DEG) and transported to a central facility where the CO₂ is vaporized and the liquid water and DEG are separated. .

This permit allows the non-commercial injection of the process-produced, nonhazardous McElmo Dome and Doe Canyon Field's Leadville and Ouray Formations waste water into the Leadville-Ouray, Devonian (Elbert), and Cambrian Formations via the subject disposal injection well.

This permit is issued for **ten (10) years**, unless terminated. The permit will be reviewed at least every five years to determine whether action under 40 CFR Section 144.36(a) is warranted. It is the Permittee's responsibility to read and understand all provisions of this permit. The permit will **expire at midnight ten (10) years after the effective date of this permit**, or upon delegation of primary

enforcement responsibility for the UIC 1422 Program to the State of Colorado, unless that State has adequate authority and chooses to adopt and enforce this permit as a State permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

TABLE 1.1
WELL STATUS / DATE OF OPERATION
CONVERSION WELLS

Well Name	Well Status	Date of
DWD-1	New	5/16/1984

PART II. Permit Considerations (40 CFR 146.24)

Geologic Setting (TABLE 2.1)

TABLE 2.1
GEOLOGIC SETTING
DWD-1

FORMATION NAME	GEOLOGICAL DESCRIPTION	TOP DEPTH, ft	BOTTOM DEPTH, ft	TDS mg/l	ZONE TYPE
Quaternary	Alluvial sands and gravels, loess, colluvium windblown sands	0	995	< 10,000	USDW
Carmel	Siltstone, shale, limestone	995	1050	< 10,000	Confinement
Navajo	Sandstone	1050	1437	< 10,000	USDW
Wingate	Sandstone	1437	1532	< 10,000	USDW
Chinle	Siltstone, sandstone, shale, and limestone	1532	2323	< 10,000	USDW
Chinarump		2323	2426	< 10,000	USDW
Cutler	Sandstones and conglomerates	2426	4311	6,420	USDW & Confinement
U Hermosa	Carbonate rocks with minor fine-grained elastics	4311	6027	6,730 mg/l – 381,436 mg/l	Confinement
Desert Creek	Carbonate rocks	6027	6076	>10,000	Confinement
Top Salt	Impermeable salt	6076	7996	>10,000	Confinement
Base Salt	Impermeable salt	7996	8090	>10,000	Confinement
Leadville	Limestones	8090	8322	20,000 mg/l – 200,000 mg/l	Injection zone
Ouray	Limestone and dolomite	8322	8371	> 10,000 mg/l	Injection zone
Devonian (Elbert)	Shale, limestone, sandstone, and siltstone	8371	8681	> 10,000 mg/l	Injection zone
Cambrian	Siltstone, dolomite, and shale	8681	9180	182,246 mg/l	Injection zone
Precambrian	Crystalline	9180	Basement	>10,000	Confinement

The Well Completion reports which contain the formations' names and depths of formations starting from the surface to the Devonian (Elbert) were obtained from the Well Completion and Recompletion Report dated October 30, 1984. The data for the base of the Ouray and depths of the Devonian (Elbert) and Cambrian formations were obtained from additional information submitted by the applicant. EPA acknowledges that the depths listed in the Well Completion and Recompletion Report differ from those provided in comments submitted by the applicant due to variations in geological interpretations. It has been our policy to first consider values submitted in Well Completion or Recompletion Reports and Logs which are obtained from the State of Colorado's database first and then to consider additional data certified by a Professional Geologist. The total dissolved solids values and zone types have been obtained from the permit application, additional data submitted by the permitted, and the reference document Ground Water Atlas of the United States, Segment 2. The applicant will be required to collect and report water quality data collected from the proposed injection zones. Water quality data will be collected to confirm the total dissolved solids content in the Undifferentiated Devonian and Cambrian Formations. A Fracture Finder Log will be run prior to receiving an authorization to inject to identify potential pathways and to comply with the regulatory requirement under 40 CFR 146.12(d)2.

Proposed Injection Zone(s) (TABLE 2.2)

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by a confining zone which is free of known open faults or fractures within the Area of Review.

**TABLE 2.2
INJECTION ZONES
DWD-1**

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Leadville - Ouray	8,090	8,371	20,000-200,000	0.54		
Devonian (Elbert)	8,371	8,681	>10,000			
Cambrian	8,681	9,180	182,246			

- * **C - Currently Exempted**
- E - Previously Exempted**
- P - Proposed**

The applicant is requested to obtain and provide additional data. Pore pressure or Reservoir pressure data should be submitted prior to the receipt of an authorization to begin injection (see 40 CFR 146.12(b)(2)). A pressure Fall Off Test shall be performed one (1) year after the receipt of a final authorization to begin injection and annual thereafter, in accordance with 40 CFR 146.13(d)(1). Water quality analysis for the proposed formations shall be collected in accordance with 40 CFR

146.12 and 40 CFR 146.14.a.8 of the chemical, physical, and radiological characteristics. Compatibility testing of the injectate and the formation minerals shall be performed in accordance with 40 CFR 146.14(b)(6) prior to receiving authorization to begin injection.

Confining Zone(s) (TABLE 2.3)

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3

**TABLE 2.3
CONFINING ZONES**

FORMATION NAME	GEOLOGICAL DESCRIPTION	TOP DEPTH, ft	BOTTOM DEPTH, ft	TDS mg/l	ZONE TYPE
Carmel	Siltstone, shale, limestone	995	1050	< 10,000	Confinement
Cutler	Sandstones and conglomerates	2426	4311	6,420	Confinement
Desert Creek	Carbonate rocks	6027	6076	> 10,000	Confinement
Top Salt	Impermeable salt	6076	7996	> 10,000	Confinement
Base Salt	Impermeable salt	7996	8090	> 10,000	Confinement
Precambrian	Crystalline	9180	Basement	> 10,000	Confinement

Based upon information submitted by the applicant, a portion of the Cutler Formation serves as confinement and the remaining portion serves as a USDW. *The bolded zones are the upper (Paradox Salts) and lower (Precambrian) confining zones for the proposed injection interval.*

Underground Sources of Drinking Water (USDWs) (TABLE 2.4)

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

**TABLE 2.4
UNDERGROUND SOURCES OF DRINKING WATER (USDW)**

FORMATION NAME	GEOLOGICAL DESCRIPTION	TOP DEPTH, ft	BOTTOM DEPTH, ft	TDS mg/l	ZONE TYPE
Quaternary	Alluvial sands and gravels, loess, colluvium windblown sands	0	995	< 10,000 mg/l	USDW
Navajo	Sandstone	1050	1437	< 10,000 mg/l	USDW
Wingate	Sandstone	1437	1537	< 10,000 mg/l	USDW
Chinle	Siltstone, sandstone,	1537	2323	< 10,000	USDW

	shale, and limestone			mg/l	
Chinarump		2323	2426	< 10,000 mg/l	USDW
Cutler	Sandstones and conglomerates	2426	4311	6,420 mg/l	USDW

PART III. Well Construction (40 CFR 146.22)

**TABLE 3.1
WELL CONSTRUCTION REQUIREMENTS
DWD-1**

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Conductor	36	30	0 - 59	0 - 59
Surface	14 $\frac{3}{4}$	10 $\frac{3}{4}$	0 - 3,807	0 - 3,807
Longstring	9 $\frac{7}{8}$	7 $\frac{5}{8}$	0 - 8,479	550 - 8,479

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

The well construction information presented above has been obtained from October 30, 1984 Well Completion or Recompletion Report and Log which has been obtained from the Colorado Oil and Gas Commissions database. The information presented above and incorporated into Appendix A of the application has been obtained from both the October 30, 1984 Well Completion or Recompletion Report and supplemental data submitted by the applicant. The applicant shall submit a revised Well Completion or Recompletion Report and Diagram to EPA prior to receiving authorization to begin injection into the DWD-1 well. A Completion/Recompletion Report has been used to determine the top of cement in the 7 $\frac{5}{8}$ casing at 550 ft based upon information submitted by the applicant.

Casing and Cementing (TABLE 3.1)

The well construction plan was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction details for this "new" injection well is shown in TABLE 3.1.

Remedial cementing may be required if the casing cement is shown to be inadequate by cement bond log or demonstration of Part II (External) mechanical integrity.

Once the well has been constructed, the applicant shall run a cement bond log on the DWD-1 well to demonstrate the presence of adequate cement behind pipe A CBL will be used to determine the quality of cement behind pipe.

Tubing and Packer

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

The placement depth of both the Tubing and Packer have been identified in Appendix A of the application. The applicant shall update this information in the submittal of a revised Well Recompletion Report and diagram.

Tubing-Casing Annulus (TCA)

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

Kinder Morgan is required to maintain the annulus pressure between 0 psi and 25 psi or use the procedures in Guidance No. 35 to address exceedances. The annulus between the tubing and the casing shall be filled with water treated with corrosion inhibitors and oxygen scavengers.

Monitoring Devices

The permittee will be required to install and maintain wellhead equipment that allows for monitoring pressures and providing access for sampling the injected fluid. Required equipment may include but is not limited to: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) fittings or pressure gauges attached to the injection tubing and the TCA for monitoring the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

The applicant shall be required to monitor the maximum injection pressure and record results in accordance with the conditions of the permit's appendix D. An inspector will perform visual inspections of the well, pressure levels, ground surface, and well head.

The permittee shall use the specific criteria in Part II Section E.1 to define significant change in the parameters: pH, Total Dissolved Solids, and specific gravity. A comprehensive water analysis shall be obtained for the injection fluid whenever a significant change in the identified parameters is observed.

PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

According to the information provided, there are no wells within the 1/4 mile area of review.

**TABLE 4.1
AOR AND CORRECTIVE ACTION**

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
<i>none</i>					

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

No wells were identified in the Area of Review. No corrective action is required in the proposed location.

Area of Review

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence.

The 1/4 mile radius used for the area of review is considered to be adequate. There are no non-freshwater or freshwater artificial penetrations identified within a 1/4 mile radius of the proposed injection well. No additional facilities including surface water bodies, springs, mines (surface and subsurface), quarries, and other pertinent surface features, including residences and roads, and faults were identified by Kinder Morgan in the DWD-1 well application, within a 1/4 mile radius. No other wells were identified within a 1/4 mile radius of the DWD-1 well.

"Faulting is indicated at the level of the Leadville Limestone extending off to the southeast from the northeast arm of this structure, but there is no faulting indicated in the area of the DWD-1 study area. Based on commercial structure map data for the Leadville Limestone, the distinct closure of this structure is confirmed, and again, no significant faulting is indicated (Geomap, 2010)," based upon information submitted by the applicant in Attachment F, page F-7, Section F.3, paragraph 3 of the application. Also, no surface faulting was identified in the local geological assessment, and therefore, no subsurface or surface fault traces were indicated on the basemap.

Corrective Action Plan

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are

necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

No Corrective Action is required.

PART V. Well Operation Requirements (40 CFR 146.23)

**TABLE 5.1
INJECTION ZONE PRESSURES**

Formation Name	Depth Used to Calculate	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Leadville	8,090 feet	0.56	1000
Ouray	8,090 feet	0.56	1000
Devonian (Elbert)	8,090 feet	0.56	1000
Cambrian	8,090 feet	0.56	1000

The applicant is granted a temporary MAIP of 1,000 psi in order to perform a Step Rate Test to verify the appropriate final MAIP. This is the maximum pressure previously allowed at the operating three Kinder Morgan injection wells in Montezuma County, Wyoming. The applicant has requested and is permitted to perform a Step Rate Test with a minimum of 6 rate steps and a maximum allowed injection pressure of 1,000 psi. A final Fracture Gradient and Maximum Allowed Injection Pressure shall be established once the applicant completes the Step Rate Test.

Approved Injection Fluid

The approved injection fluid is limited to

- a) spent sulfamic acid (2-8%) neutralized to a pH of 5 to 9 with soda ash or baking soda. This solution will also include a surfactant, a corrosion inhibitor and ammonium bifluoride;
- b) acetic acid;
- c) diethanolamine (DEA);
- d) coolant drain-off (50% water, 50% diethylene glycol);
- e) associated treatment chemicals, (e.g., antifreeze, corrosion inhibitor, and bacteria inhibitor);
- f) potassium permanganate in potable water;

- g) diethylene glycol;
- h) produced/processed fluids; and
- i) any non-hazardous fluids associated with field and plant development, operation and maintenance

Compatibility analysis shall be performed prior to receiving authorization to commence injection. Compatibility analysis shall be performed to evaluate any impacts caused by injection into the proposed injection zones. Appendix G is a list of analysis to be performed on the formation fluids. It is based upon previous analysis performed on nearby wells and regulatory requirements. The annulus fluid will consist of a solution of water treated with corrosion inhibitor and oxygen scavenger.

Injection Pressure Limitation

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit.

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

- FP = formation fracture pressure (measured at surface)
- fg = fracture gradient (from submitted data or tests)
- sg = specific gravity (of injected fluid)
- d = depth to top of injection zone (or top perforation)

- *fg = 0.56 (this fracture gradient was obtained from Woods No. 3, MWD-1 Step Rate Test)*
- *sg = specific gravity = 1.010 g/cc for the injectate*
- *d = 8,090 ft = depth at which the Leadville Formation is encountered*

A Step Rate Test shall be performed between ninety (90) and one hundred eighty (180) days following the receipt of a limited authorization to begin injection. This permit condition complies with 40 CFR 146.12 – Construction requirements. Paragraph (e) suggests that the fracture pressure be determined or calculated during the construction phase of the well.

The Step Rate Test shall be performed at or below the maximum pressure of 1,000 psi with a minimum of six (6) rate steps. A maximum pressure of 1,000 psi has been estimated based on calculations for

previous Kinder Morgan CO₂ Company wells in Montezuma County, Colorado not to initiate fractures. A fracture finder log shall be provided for EPA's review prior to receiving authorization to start injection. Both surface and downhole (using a downhole pressure bomb or similar type tool) pressure will be measured during the test duration.

Stimulation Program – Kinder Morgan CO₂ Company shall submit a detailed stimulation procedure if stimulation is determined to be needed. Kinder Morgan anticipates that if stimulation is required the procedure will involve a conventional acid soak with HCL and/or a clean out using coiled tubing or a conventional work string.

Injection Volume Limitation

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

No volume limits are placed in the permitting conditions because the injection zones are not expected to be USDWs. The applicant shall obtain water quality samples from the injection zones which contain total dissolved solids values to ensure that the formation(s) are not USDWs.

Mechanical Integrity (40 CFR 146.8)

An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packer (Part I); and
2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependent upon well-specific conditions as explained below.

The applicant is required to perform a Part I and Part II MIT as follows:

- *Part I, Shall be performed prior to receiving authorization to inject (or a limited authorization to inject) and **at least every five (5) years** after the last successful demonstration of Mechanical Integrity.*
- *Part II, Shall be performed within one (1) year following the receipt of a final authorization to inject and **at least every five (5) years** after the last successful demonstration of Mechanical Integrity. Federal regulation 40 CFR 146.8(c)1 requires the absence of significant fluid be determined with either a temperature or noise log. Therefore, a temperature log with a supplemental radioactive tracer survey may be used to perform Part II (External) Mechanical Integrity Testing.*

Because this well generally operates on a vacuum, the applicant shall perform tests as follows:

- *Temperature Logs shall be performed by injecting on a vacuum*
- *Radioactive Tracer Surveys shall be performed by conducting the slug test portion on a*

vacuum but the time drive portion of the test must be performed by injecting at the maximum allowable injection pressure.

The MAIP for the well may be adjusted following the review of conditions (i.e. pressure) used to run the test and a review of the results of the test.

- *Pressure Fall Off Tests shall be performed within a 180 day limited authorization period and annually thereafter. Both surface and downhole (with a downhole pressure bomb or similar type tool) pressure will be measured during the test duration.*

The applicant may request to perform an Interference Test after two years of operation and the completion of two Pressure Fall Off Tests or at an alternate timeframe approved by the Director. The EPA Director shall consider and make a determination regarding the future use of an alternate annual Pressure Fall Off Test procedure after reviewing available data..

PART VI. Monitoring, Recordkeeping and Reporting Requirements

Injection Well Monitoring Program

At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, injection flow rate and cumulative fluid volume, and the maximum and average value for each must be determined for each month. This information is required to be reported annually as part of the Annual Report to the Director.

PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)

Plugging and Abandonment Plan

Prior to abandonment, the well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs, and in accordance with any applicable Federal, State or local law or regulation. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520 13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. The plugging and abandonment plan is described in Appendix C of the Permit.

The injection well plugging and abandonment plan described in Appendix C is considered to be adequate for protecting overlying USDWs. A revised Plugging and Abandonment plan, corrected for

depths, may be submitted for EPA's review once the well has completed construction. The permittee also is required to comply with other applicable federal state and local plugging regulations.

PART VIII. Financial Responsibility (40 CFR 144.52)

Demonstration of Financial Responsibility

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

A demonstration of Financial Responsibility in the amount of \$104,000 has been provided.

The Director may revise the amount required, and may require the permittee to obtain and provide updated estimates of costs for plugging the well according to the approved Plugging and Abandonment Plan.

Evidence of continuing financial responsibility is required to be submitted to the Director annually.

PART IX. Considerations Under Federal Law (40 CFR § 144.4)

EPA has determined that issuance of Permit Number CO12182-08833 for the DWD-1 injection well is in compliance with the laws, regulations, and orders described at 40 C.F.R. § 144.4, including the National Historic Preservation Act (NHPA) and the Endangered Species Act (ESA).

NHPA Review

The Colorado State Historic Preservation Officer submitted a letter dated February 14, 2012, "Proposed Kinder Morgan Injection Wells HWD-2, MWD-1, and DWD-1, Montezuma and Dolores Counties, Colorado (CHS #61375)." The Colorado SHPO believes that a finding of no historic properties affected (rather than no adverse effect) is appropriate for the proposed project.

Other organizations such as local government, the Bureau of Land Management (BLM), and several tribes identified on a list suggested by the Colorado State Historic Preservation Office have been contacted. We are currently responding to all comments received. Nevertheless, we have not received any complaints regarding the project. Only inquiries for more information about the process that is used to issue permits and acknowledgement of the receipt of the requests submitted to all potential stakeholders.

ESA Review

The Fish and Wildlife Service has reviewed data submitted by EPA regarding Kinder Morgan's anticipated no adverse impacts expected to Threatened and Endangered Species and Habitat in the proposed area. They did not object to the project. But they have addressed a concern that the pipeline for the well DWD-1 will be installed near a road that serves as a winter concentration area

for the Elk. They have advised that construction activities be avoided between December 1 – April 15 in order to not impact Elk in the area.

Other organizations such as local government, the Bureau of Land Management (BLM), and several tribes identified on a list suggested by the Colorado State Historic Preservation Office have been contacted. We are currently responding to all comments received. Nevertheless, we have not received any complaints regarding the project. Only inquiries for more information about the process that is used to issue permits and acknowledgement of the receipt of the requests submitted to all potential stakeholders.