ATTACHMENT D

EPA Region 8 Underground Injection Control (UIC) Program
Response to Public Comments

Class II Commercial Permit No. ND22349-11250
Red Murphy SWD # 1
Salt Water Disposal Well

Issued to:

Goodnight Midstream Bakken, LLC
5910 N. Central Expressway, Suite 630
Dallas, Texas 75206

Final Permit issuance: February 15, 2019

Background:

The Red Murphy SWD #1 Permit (Permit) is a Class II UIC commercial salt water disposal Permit for a new injection well on the Fort Berthold Indian Reservation (FBIR). The draft permit for this well was issued on June 1, 2018 with a 30-day public comment period. A public notice of the comment period was published in the New Town News and the Dunn County Herald. It was also posted on EPA Region 8's website. A two-week extension for public comments was granted to provide the Mandan, Hidatsa and Arikara Nation (MHA Nation or Tribe) additional time to comment on this draft permit. The Final Permit authorizes commercial disposal of oil-produced fluids through injection.

The EPA only received one set of written comments on the draft permit during the comment period, from the MHA Nation. However, the EPA also received verbal comments from the MHA Nation throughout the tribal consultation process. Finally, the EPA received a written comment outside of the comment period from the MHA Nation Energy Department staff. While EPA does not generally accept public comments outside of the comment period, it decided to do so in this case to ensure that the EPA could understand and give full consideration to the Tribe's interests. All comments are included in the administrative record for EPA's Final Permit decision.

Changes to the Final Permit:

Pursuant to the UIC permitting regulations at 40 CFR § 124.17, the Response to Comment must specify which provisions of the draft permit have been changed in the final permit decision and provide a reason for the change. The following changes have been made to the Final Permit:

1. **Appendix C. Operating Requirements**

Draft Permit Language: "There is no limitation on the fluid volume permitted to be injected into this well.... If an aquifer exemption is required and approved for this Permit, then a volume limit will be set based on the conditions of the aquifer exemption, through the modification process."

Final Permit Language: The permittee, upon being granted authorization to inject, may dispose of up to 5,200,000 barrels of produced fluids as described in the Permit.

Reason for change: The Final Permit includes a volume limitation based on modeling results and analysis and limiting injection fluid movement to a 736-foot radius around the well bore. This volume limitation is designed to prevent injection fluid from migrating beneath tribal land, which lies 736 feet away from the well bore. The EPA's preliminary assessment is that the portion of the Inyan Kara aquifer proposed to receive injected fluids is an underground source of drinking water (USDW), including the area of the aquifer underneath tribal land 736 feet from the well bore. This is based on EPA's general knowledge of the aquifer's water quality in this area of the Fort Berthold Indian Reservation (FBIR) and the lack of available site-specific data indicating that it is not a USDW. However, if the required water samples indicate that the aquifer is not a USDW at the well bore, this volume limitation is imposed as an additional protective measure to prevent injection fluid from migrating to potential USDWs under Tribal lands. The permittee is required in Appendix B to sample the aquifer prior to being authorized to inject. The EPA will use these sampling results to definitively determine whether this portion of the aquifer is a USDW, in which case the permittee may request, and EPA must review and approve, an aquifer exemption before injection can commence.

Response to Comments

In accordance with 40 CFR § 124.17, this section briefly describes and responds to all significant comments on the draft permit. The EPA Region 8 only received comments from two commenters, the MHA Nation Tribal Government and MHA Nation Energy Department staff. The MHA Nation provided comments in both written and verbal form.

1. **Comment 1:**

The EPA should withhold or deny the Class II Underground Injection Control ("UIC") Permit No. ND22349-11250 for Red Murphy SWD No. 1 to be operated by Goodnight Midstream Bakken, LLC ("Goodnight") until the company complies with MHA Nation law, which requires MHA Nation approval prior to issuance of the Permit. Oil and gas development presents opportunities for economic growth, but it also presents hazards to the health and safety of the members of the MHA Nation if not properly regulated. To protect Tribal members and Reservation residents from the harmful effects of oil and gas development, the MHA Nation enacted Resolution No. 11-75-VJB governing the disposal of waste associated with

the exploration and development of oil and gas on the Reservation. The Resolution requires that the MHA Nation's Tribal Council approve any waste disposal facility. Goodnight has not contacted the MHA Nation to obtain approval for waste disposal within the Reservation.

MHA Nation authority over waste disposal wells stems from its Constitution, approved under the Indian Reorganization Act of 1934, 25 U.S.C. §§ 461 *et seq.* (IRA). The MHA Nation regulation of waste disposal wells pursuant to its authority under its Congressionally authorized and federally approved Constitution is similar to tribal authority exercised under the Clean Water Act. For example, in *Montana v. EPA*, 137 F.3d 1135, 1141 (9th Cir. 1998), the Court upheld the EPA's approval of tribal regulation of reservation water resources pursuant to the Clean Water Act even when that regulation affects non-Indians—such as Goodnight in this case. The MHA Nation has inherent authority over non-Indian activities on fee lands within the Reservation. This authority provides for the regulation of all waste disposal facilities within the Reservation including facilities operated by non-Indians on fee lands.

The EPA should find that the following legal authorities and principles provide authority to condition or deny UIC permits based on the tribal resolution: the IRA, the federal trust responsibility to federally recognized Indian tribes, the "mild and equitable regulation" language under the 1825 Trade and Intercourse Treaties, the 1851 Fort Laramie Treaty, and principles of cooperative federalism.

Other federal agencies defer to tribal law, including the Department of Energy (DOE) and the Bureau of Land Management (BLM). At an Indian Country Energy and Infrastructure Working Group meeting, DOE Deputy Secretary of Energy Dan Brouillette gave a speech in which he said: "And let me be clear: it is not Administration Policy to dictate terms to tribes, but to consult, respecting tribal sovereignty by affording all tribes the opportunity to decide whether and how energy is developed on their lands, and to negotiate the benefits they reap from development....Moreover, the Administration is committed to the principle of Indian Energy Sovereignty...the concept that tribal governments, not feds, should decide which regulatory, tax, environmental, historic preservation, and sacred sites laws apply on Indian lands and govern Indian energy development." A recent BLM final rule defers to tribal law by including a regulation that allows oil and gas operators to vent or flare oil-well gas royalty free when the venting or flaring is done in compliance with applicable rules, regulations, or orders of the State regulatory agency (for Federal gas) or tribe (for Indian gas). 83 FR 49184 (Sept. 28, 2018).

EPA Response 1:

The EPA cannot condition or deny permit applications based on the Tribe's laws. The Safe Drinking Water Act (SDWA) and its implementing regulations establish the only criteria under which the EPA may condition, approve, or deny permit applications for underground injection,

and the regulations generally are limited to the protection of USDWs. These regulations do not provide authority to make permitting decisions based on another entity's laws; those laws are outside the scope of the UIC program. However, issuance of a UIC permit by the EPA does not shield a permittee from compliance with other applicable laws. Consistent with 40 CFR § 144.35(b) and (c), the Permit specifies that "[i]ssuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of any other federal, state or local law or regulations." Therefore, it is the Permittee's responsibility to comply with any other applicable laws which are outside the scope of the EPA's program.

The EPA respectfully acknowledges the MHA Nation's arguments regarding its authority to regulate oil and gas operations on the Fort Berthold Indian Reservation. However, the issue of Tribal authority is not before the EPA and is outside the scope of this permitting action. The EPA directly implements the UIC program throughout Indian country in North Dakota under authority from the SDWA. See 40 CFR § 147.1752. Accordingly, this Permit is being issued under the EPA's authority.

The EPA reviewed the legal authorities and principles cited by the MHA Nation, including the IRA, the federal trust responsibility to federally recognized Indian tribes, the "mild and equitable regulation" language under the 1825 Trade and Intercourse Treaties, the 1851 Fort Laramie Treaty, and principles of cooperative federalism. None of these legal authorities or principles alter the EPA's authority under the SDWA or provide the EPA authority to deny or condition UIC permits based on the MHA Nation's tribal resolution. The EPA provided a letter to the MHA Nation on December 28, 2017, summarizing its analysis on each of these authorities and principles. We are attaching a copy of the letter to this Response to Comments. (Attachment 1).

Finally, the DOE's and the BLM's purported ability to defer to tribal law does not affect the EPA's legal authority in this EPA UIC permitting action. The EPA reviewed the speech that the MHA Nation cited, given by DOE Deputy Secretary of Energy Dan Brouillette at an Indian Country Energy and Infrastructure Working Group meeting. The speech referenced DOE policies and principles of deferring to tribal law. However, the MHA Nation does not reference any legal authority that would require or allow the EPA to implement these policies and principles consistent with the SDWA. The DOE policies and principles of deferring to tribal law do not authorize the EPA to deny or condition UIC permit applications based on Resolution No. 11-75-VJB. Similarly, the BLM final rule regarding venting and flaring of oil and gas operations does not affect EPA's legal authority in this EPA UIC permitting action. According to the BLM, its legal authority for the rule is based on the Mineral Leasing Act and related statutes. 83 Fed. Reg. 49184, 49188 (September 28, 2018). The BLM's legal authorities do not apply to the EPA, do not provide the EPA any additional legal authority, and are outside the scope of the EPA UIC program.

2. **Comment 2:**

   EPA regulations implementing the SDWA recognize tribal authority over waste disposal wells. SDWA regulations, consistent with EPA's treaty and trust

responsibility and Tribal Policy, affirm that EPA should consider tribal authorities and interests in overseeing and permitting Class II wells in Indian country. EPA regulations allow the Administrator to promulgate an alternate UIC program for Class II wells in Indian country. 40 CFR § 144.2. In its oversight and permitting, EPA is further directed to consider "[t]he interest and preferences of the tribal government having responsibility for the given reservation or Indian lands." 40 CFR § 144.2(a). In this case, EPA should promulgate an alternative UIC Program to manage the large number of disposal wells proposed for the Reservation and prevent impacts to tribal trust lands and waters, including the well relating to the draft permit. This alternative UIC program should be developed in consultation to include the "interest and preferences" of the MHA Nation. As set out in Resolution No. 11-75-VJB, EPA's alternative UIC program for the Reservation should include coordination with and the approval of the MHA Nation. The MHA Nation expressed its interests and preferences in Resolution No. 11-75-VJB, and EPA should abide by this clear expression of the MHA Nation's interests and preferences.

EPA Response 2:

The UIC regulations do acknowledge two roles for tribes under the UIC program; these roles are detailed at 40 CFR § 144.2 and 40 CFR § 145.52. However, neither of these regulations apply in this permitting action.

The MHA Nation specifically commented that 40 CFR § 144.2 allows the EPA Administrator to promulgate an alternate UIC Program for Class II wells on any Indian reservation or Indian lands. It urged the EPA to promulgate such an alternative program and consider the interests and preferences of the Tribal government, as directed by the regulation. While it is possible to promulgate an alternate Class II UIC program to the one outlined in the federal regulations, such a promulgation must be done through notice and comment rulemaking, not through a specific permitting action. Therefore, this is outside the scope of this UIC permitting action. The current applicable program on the Fort Berthold Indian Reservation is codified at 40 CFR § 147.1752, is EPA-administered, and includes the requirements of 40 CFR parts 124, 144, 146, and 148.

The MHA Nation also cited to 40 CFR § 144.2 to support an argument that EPA is directed to consider the Tribal Government's interest and preference in oversight and permitting. As explained above, 40 CFR § 144.2 allows the EPA to promulgate an alternate UIC Class II program for an Indian reservation; it does not contain any requirements with regard to specific permitting actions. Therefore, this provision does not provide authority for the EPA to condition or deny a permit based on the Tribe's resolution.

The second role for tribes described in the UIC regulations can be found at 40 CFR § 145.52-.58. Under these regulations, a tribe can apply for primary enforcement responsibility to administer the UIC program. These regulations detail a process to transfer administration of the UIC program from the EPA to an Indian tribe. This process is also outside the scope of this permitting

action. The EPA is currently responsible for implementing the UIC program on the Fort Berthold Indian Reservation, as the MHA Nation has not applied for and been approved to do so. The EPA must implement the program in accordance with the applicable program as set out in 40 CFR § 147.1752.

3. **TECHNICAL CONCERNS**

a. **Lateral Migration of Fluid - EPA must assess impacts to trust waters from waste disposal wells. Oil and gas activities on any of the lands on the Reservation will have an impact on neighboring lands. The Draft Permit proposes drilling Red Murphy SWD No. 1 in one of the poorest sandstone intervals on the Reservation. Injection into this Inyan Kara sandstone interval will result in disposed waste migrating far from the injection site and contaminate MHA Nation trust lands only about 700 feet away. Any such infiltration of contaminated fluids would constitute a trespass on the part of the well operator and a breach of trust on the part of the EPA. For example, assuming an injection rate of 15,000 barrels per day, the waste disposed in Red Murphy SWD No. 1 will infiltrate trust lands in 3 years. The Draft Permit does not contain measures to prevent this harmful phenomenon from occurring. Review of the Draft Permit reflects that the injection zone underlies the MHA Nation's trust lands.**

The Draft Permit identifies an Area of Review ("AOR"), consisting of lands within a fixed three-quarter mile radius of the proposed Red Murphy SWD No. 1. Lands comprising this AOR include MHA Nation trust lands. Pursuant to federal regulations, the purpose of the AOR is to establish an estimated perimeter within which injected fluids could potentially migrate into drinking water sources. See 40 C.F.R. § 146.6. Thus, the Draft Permit acknowledges the potential for injected fluids to infiltrate portions of the injection zone underlying MHA Nation trust lands, yet fails altogether to establish any mechanism to prevent this infiltration. In fact, the Draft Permit provides for an unlimited volume of fluid to be injected into the Red Murphy SWD No. 1, meaning that an unlimited quantity of contaminated water is likely to permeate MHA Nation trust lands. We need to know how far out the produced water goes once it goes into the formation.

The rock characteristics of the Inyan Kara (Dakota) Formation is more complex than a blind perforation program with fluid flow diagrams showing multiple configurations depending on the clean sandstone interval variations. EPA should obtain and include in its assessment, an August 15, 2017 analysis by BLM, which shows that a number of disposal wells on the Reservation, whether on fee or allottee lands are already impacting neighboring tribal

trust lands. Even using BLM's overly conservative assumptions regarding substrate pore space and despite BLM's lack of site specific geological analysis, BLM's results show that many disposal wells on the Reservation are being injected w/ waste at a rate and volume that resulting in migration of waste on to trust lands.

EPA Response 3a:

The MHA Nation's comments on the lateral migration of fluid concerns two different issues. The first issue is that fluids could migrate laterally within the injection zone and affect pore space underlying tribal trust lands. The Tribe also refers to this as "trespass" or "subsurface trespass." The second issue is that fluids could migrate laterally within the injection zone and affect water underlying trust lands. We discuss each issue separately.

Pore Space – The issue of subsurface trespass into pore space underlying an owner's land is a property rights issue that is expressly outside the scope of the UIC program. Consistent with 40 CFR § 144.35(b) and (c), the Permit specifies that "[i]ssuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of any other federal, state or local law or regulations." Therefore, the EPA has no authority to consider this issue in this UIC permitting decision.

Migration of fluid into waters underlying tribal trust lands – The Tribe raises a couple of issues regarding the potential for the injectate to migrate into waters under trust lands. The Tribe appears to call into question the EPA's analysis about fluid movement in the Inyan Kara Formation. It provides an alternate calculation and asserts that the injectate will cross into groundwater underneath tribal trust land in 3 years. The Tribe raises concerns that the EPA did not adequately assess the impact of underground injection on groundwater underlying tribal trust land. It also asserts that EPA must prevent fluids from crossing into groundwater under tribal trust land.

Modeling of fluid movement – The Tribe cites the BLM's August 2017 analysis to support its concern that fluid movement has already impacted tribal trust land on other parts of the Reservation. The EPA obtained a copy of the BLM report and reviewed it. In addition to this review, the EPA did some further modeling and analysis of fluid movement in this area. The EPA conducted an analysis based on a set of models previously developed and presented by the Department of Energy's Pacific Northwest National Laboratory (PNNL). In developing the model, a rigorous approach was taken to more accurately reflect the fluid movement in the Inyan Kara sandstone injection zone, by assuming fluid flow only into the proposed well's discrete perforations each separated by less permeable layers. The results of the models show that injecting at a rate of 14,000 barrels per day would result in the injectate entering waters underlying tribal trust land in approximately one year. The volumetric model that EPA used is generally similar to the BLM model. However, BLM uses the entire interval from the top of the uppermost perforation to the bottom of the lowermost perforation interval. The EPA took a more

conservative approach and assumed flow to only occur within the portion of the injection zone that were perforated. Furthermore, the porosity values were based on values from each discrete interval and not a gross value.

Migration of injectate into waters underlying tribal trust lands – The EPA's authority to protect groundwater from underground injection derives from the SDWA and its UIC regulations. The UIC program as set out in the regulations does not authorize the EPA to protect all groundwater but rather aquifers defined as "underground sources of drinking water" or "USDWs." 40 CFR § 144.3.

The UIC regulations at 40 CFR § 144.12, and the Permit in Part I, prohibit injection into a Class II well if it causes movement of a contaminant into a USDW. Therefore, following construction of the well, the Permittee is required to submit the results of its water quality sampling, which will provide data indicating whether the aquifer is a USDW at this site. If the aquifer is a USDW at this location, the EPA would not issue an authorization to inject, and the Permittee could not use the well to inject without first securing an aquifer exemption to exempt a specified area from protection as a USDW.

In addition to the prohibition on injecting into a USDW, the permit has been changed to include an injection volume limitation. As discussed in Response 3c below, the Final Permit includes an injection volume limitation based on an updated modeling analysis to limit injection fluid movement to a 736-foot radius around the well bore. This volume limitation is designed to prevent injection fluid from migrating beneath tribal land, which lies 736 feet away from the well bore. This change to the permit is based on the premise that the water in the aquifer underneath the neighboring tribal trust land meets the definition of a USDW, based on EPA's general knowledge of the aquifer's water quality in this area of the FBIR and the lack of site-specific data available indicating that it is not a USDW. In response to the Tribe's ground water quality concerns, the EPA is exercising its discretion in incorporating this volume limit into the permit to protect this potential USDW.

b. **Monitoring - The Permit must contain adequate mechanisms to monitor the volume of contaminated fluid flowing into portions of the injection zone underlying MHA Nation's trust lands. The lack of monitoring is a glaring omission.**

Response 3b:

The EPA requires monitoring of injection volumes, both monthly and cumulatively. In Part II(A)(3)(d) *Sampling and Monitoring Devices*, the Permit requires the installation of a non-resettable flow meter that records the cumulative volumes on the injection line. Part II(D)(2)(b) *Monitoring Methods* requires injected volumes, cumulative injective volumes, and injection rates be recorded. Appendix D - *Monitoring and Reporting Parameters* requires weekly and annual reports on injection rates and volumes. The EPA has incorporated monitoring requirements

throughout the Permit. This monitoring includes both injection rates and volumes. Compliance with the injection volume limit will be verifiable with the monitoring requirements in place. These requirements will ensure that the fluids injected will stay within the limits/distances set in the permit.

c. **<u>Maximum injection volume and rate</u> - The Permit must establish a maximum injection volume, as is necessary to prevent infiltration. Consistent with its trust responsibility, EPA must, in consultation with the MHA Nation, study the geological characteristics of waste disposal sites and determine an acceptable injection rate prior to issuing waste disposal permits. These additional terms must be developed with reliance on empirical studies performed in consultation with the MHA Nation.**

Response 3c:

After consideration of the MHA Nation's concerns about potential impacts to its waters due to the proximity of these waters to the proposed well, the Final Permit establishes an injection volume limitation to prevent endangerment to USDWs in the injection zone underneath tribal lands that are located 736 feet from the well bore. The injection volume limitation is based on the additional modeling discussed in Response 3a above, limiting the fluid migration to 736 feet from the well. The EPA is incorporating this volume limit into the Permit to protect this potential USDW. Once the well is drilled and the water quality of the aquifer is definitively determined, EPA will take whatever further action(s) may be needed prior to authorizing injection to ensure protection of USDWs.

The Permit also includes other measures to protect USDWs. First, the Permit prohibits any injection activity that allows movement of fluid containing any contaminant into USDWs, except as authorized by 40 CFR part 146. Coupled with this prohibition, the Permit contains a two-step process as briefly noted above. Specifically, the initial issuance of the Permit only allows the Permittee to construct the well, and during and after construction, the Permittee is required to collect data and perform testing. The Permittee must submit the data and testing results for EPA review. Only following EPA review and approval will EPA issue an Authorization to Inject, which would authorize injection by the Permittee. If submission of the data indicates that proposed injection zone is a USDW, the Permittee will not be authorized to inject; they will need to submit a proposal to the EPA for an aquifer exemption. Aquifer exemption requests typically specify the areal extent of the aquifer to be exempted and must demonstrate that injected fluids will remain within the exempted portion of the aquifer. The areal extent is generally consistent with the Permittee's total disposal needs. In this case, because there is an injection volume limitation in the Permit, the Permittee may also need to request an increase in the volume limit through a modification to the permit. The aquifer exemption process can be found at 40 CFR § 144.7 and 146.4; it is a process to exempt USDWs from protection under the SDWA because it

does not currently and will not in the future be used as a source of drinking water. The process provides an opportunity for public notice and comment.

The Permit does not include a specific rate limitation, but it does include a maximum allowable injection pressure (MAIP), which necessarily limits the injection rate and thereby prevents movement of fluid out of the authorized injection zone to ensure USDWs are protected. More specifically, increasing the injection rate will increase the injection pressure within the injection zone due to the increase in back pressure caused by resistance within the receiving formation. This resistance is determined by many hydrogeologic variables including porosity, permeability, and transmissivity. The Permit also requires that injection pressures and rates be monitored and reported.

The modeling results discussed above in Response 3a provides EPA the necessary level of certainty to determine how far fluids would travel from the injection well based on volume and rates of injection. More specifically, the model calculated travel distances over time based on injection rates proposed by the operator. The model assumed injection only into the proposed perforations (as provided in the Permit application), which correspond to clean sands that would readily accept injected fluids rather than the entire aquifer thickness. Consequently, this modeling more accurately reflects natural subsurface conditions. Using data from nearby wells and these specific injection intervals provided a more realistic assessment of fluid migration over time.

The EPA has consulted several times with the MHA Nation regarding UIC permits, and the Red Murphy permit specifically, on the FBIR and provided opportunities for the Tribe to give input on the Red Murphy application and draft permit, including the geologic information available at this time. However, the EPA does not have a legal obligation to perform any studies or modeling in conjunction with the Tribe.

d. **<u>Confinement</u> - The EPA must consider the potential for waste, injected at high volumes and pressures to fracture or breakthrough the well and impact the MHA Nation's groundwater and drinking water sources.**

Response 3d:

The EPA did evaluate potential pathways for injected fluids to migrate outside of the authorized injection zone to ensure that no USDWs are endangered by the permitted activity. As required by the regulations, this analysis included consideration of the potential for injection to fracture the confining zone. The Permit contains conditions related to this concern, as discussed below. In addition, the Permit includes requirements for the Permittee to maintain mechanical integrity so that the well itself is not a conduit for fluid migration outside of the authorized injection zone.

There are two permit conditions that specifically address the Tribe's concerns about fracturing of the confining zone and the potential for waste to impact the Tribe's drinking water sources. First, the Permit prohibits injection activity that allows movement of a contaminant into USDWs. See Final Permit, Part I. Second, the Permit includes a provision prohibiting injection at a pressure

that would propagate existing or initiate new fractures in the confining zone. See Final Permit, Part II, Section B.4. (a). This permit condition limits injection pressure to ensure such fracturing does not occur, thereby preventing migration of fluids out of the authorized injection zone and into USDWs. Additionally, more than 3,000 feet of impermeable rock layers within the Dakota Group and the Pierre Shale provide adequate confinement between the proposed injection zone and overlying USDWs including the Fox Hills aquifer.

In response to the Tribe's concerns regarding "breakthrough" of the well, there are permit conditions that ensure well integrity so that the well itself does not serve as a conduit for injected waste to migrate to out of the injection zone and into USDWs. First, the Permit includes well construction requirements designed to protect USDWs adjacent to the well. For example, Part II. Section A.1 of the Permit requires that the well "shall be cased and cemented to prevent the movement of fluids into or between USDWs, and shall be in accordance with 40 CFR § 146.22." Well construction requirements are also described in Appendix A in the Permit. Second, during operation, the Permit prohibits injection between the outermost casing and the well bore. See Part II, Section B.1. In addition to the specific well construction and operating requirements, the Permit requires both initial testing and periodic testing to ensure that the well has mechanical integrity and is operating as designed. There are two types of mechanical integrity tests. Part I evaluates the potential for leaks from inside the well. This includes the injection tubing, packer and well casing. This test is performed by pressurizing the tubing-casing annulus of the well and observing the pressure over a specified period for leaks. Part II evaluates the external construction of the well, to ensure the cement between the well casing and the formation is protective of USDWs. This is done by running a cement bond log (CBL) which measures the quality and seal of cement between the casing and the formation (borehole). Depending on the CBL's results, additional Part II test methods may be required including radioactive tracer surveys, temperature logs, and oxygen activation logs to ensure there is no upward migration of fluids outside of the well casing and into USDWs.

e. <u>Penalties</u> - The Draft Permit should also establish penalties for the injection of fluids in excess of the maximum volume, including, without limitation, forced shutdown of the injection well and the payment of fines for any violation to provide for any needed remediation.

Response 3e:

The purpose of a UIC permit is to regulate underground injection through appropriate construction, operating and maintenance, recording and monitoring, and plugging and closure requirements. These regulations can be found at 40 CFR §§ 144.51 and 144.52, and specific Class II requirements can be found at 40 CFR part 146 subpart C. The SDWA and its implementing regulations do not specify a process to establish penalties in a permit. Any enforcement of a permit violation must go through the enforcement process and is governed by the SDWA at 42 USC section 300h-2.

Exceeding the volume limitation would be considered a violation of the permit and would be addressed using EPA's enforcement authority to determine any appropriate penalties or remedies. The potential for an exceedance would be identified based on the EPA's review of the Permittee's ongoing monitoring and reporting of injection rates and cumulative volumes required in the Permit. Therefore, both the Permittee and the EPA will know well in advance whether injection volumes are nearing the limit thereby enabling EPA to take timely and appropriate action to prevent or address exceedance of this limit.

In addition, the Permit requires that the Permittee shut-in the well if there is a loss of mechanical integrity. See Part II. Section C.5. This is to prevent endangerment to nearby USDWs due to the potential for injected fluids to migrate from inside the well or along the outside of the well's casing.

4. **Comment 4:**

   The draft permit violates EPA's trust responsibility to the MHA Nation. In administering the UIC program under the Safe Drinking Water Act, EPA retains its fiduciary obligation to "safeguard Indian interests in land." *HRI Inc. v. Environmental Protection Agency*, 198 F.3d 1224, 1245 (10th Cir. 2000) (citing *Drummond v. United States,* 324 U.S. 316, 318 (1945)). Therefore, when overseeing and permitting underground injection wells located in Indian country, or otherwise having a potential impact on Indian lands, EPA's duties extend beyond ensuring that drinking water sources remain untainted. EPA, as trustee for the MHA Nation and its members, must also protect against other adverse impacts on Indian lands. The Draft Permit, as currently written, does not adequately monitor and protect against potential harms to MHA Nation lands, including the infiltration of contaminated waters into tribally owned pore space.

Response 4:

The Tribe asserts that the federal trust responsibility for federally recognized Indian tribes in this instance extends beyond the protection of drinking water sources and requires the EPA to protect Indian lands. The federal general trust responsibility does not create an independent, enforceable mandate or specific trust requirement beyond the EPA's obligation to comply with the legal requirements generally applicable to this situation under federal law – in this case the SDWA. While the EPA does not have authority under the SDWA to consider impacts to surface or subsurface property interests, the Final Permit complies with the SDWA by including adequate permit conditions to protect USDWs under tribal lands. As explained in Response 1, the UIC program is limited in scope, and the UIC regulations establish the only criteria under which the EPA can approve, deny, or condition permits. There are no UIC regulations authorizing the EPA to consider property interests or well siting, unless the siting concerns are related to geologic suitability relative to endangerment of USDWs. Issues regarding property interests (either surface or subsurface) are outside the scope of the UIC program, and the EPA has no authority or discretion to condition or deny permits based on these considerations. Further, as noted in

Attachment 1, the EPA has not identified any statute that would impose on the EPA a specific trust responsibility in this matter.

EPA is committed to maintaining its long-standing work with federally recognized Indian tribes on a government-to-government basis. Indeed, one of the key principles of the EPA Policy for the Administration of Environmental Programs on Indian Reservations (1984) is that the Agency, in keeping with the federal trust responsibility, will assure that tribal concerns and interests are considered whenever EPA's actions and/or decisions may affect reservation environments. Consistent with the federal trust responsibility, EPA has consulted and coordinated with the MHA Nation for over a year on UIC permitting issues on the Fort Berthold Indian Reservation. As we expressed in the EPA's December 28, 2017 letter to John Fredericks, the Tribe's attorney, EPA considers tribal interests in decision-making where we have discretion or authority to do so, consistent with the federal general trust responsibility. However, that trust responsibility does not grant the Agency additional authorities beyond those granted to us by Congress under the SDWA. Therefore, where we do not have authority or discretion to pursue a course of action, the general trust responsibility does not provide us any additional authority to do so.

The HRI, Inc. v. EPA case, cited by the Tribe, is consistent with the scope of the federal general trust responsibility described above. As referenced by the court, the federal general trust responsibility includes an obligation to protect tribal jurisdiction and tribal sovereignty over its lands, HRI, Inc. v. EPA, 198 F.3d 1224, 1245 (10th Cir. 2000), but does not create an independent, enforceable mandate or specific trust requirement beyond the EPA's obligation to comply with the legal requirements generally applicable under federal law. See, e.g., Morongo Band of Mission Indians v. FAA, 161 F.3d 569, 574 (9th Cir. 1998); Gros Ventre Tribe v. United States, 469 F.3d 801, 809-814 (9th Cir. 2006).

5. **Comment 5:**
   The MHA Nation referred to EPA's Policy on Consultation and Coordination with Indian Tribes (Policy) several times in its comments. The Tribe stated that the Policy requires that EPA work directly with the MHA Nation in the issuance of any permit as the sovereign entity with the primary authority over the Reservation. It quoted the Policy, stating that the "EPA recognizes and works directly with federally recognized tribes as sovereign entities with primary authority and responsibility for each tribe's land and membership...." and expressed that "[t]his Guiding Principle implements and is required by EPA's treaty and trust responsibility to the MHA Nation." The Tribe's comments suggested that the Policy provides the EPA with the authority to deny the UIC permit application for Red Murphy SWD No. 1 on the basis of the Tribe's resolution.

EPA Response 5:

The EPA acted consistently with the Policy throughout the permitting process. As stated in the Policy, "EPA's policy is to consult on a government-to-government basis with federally

recognized tribal governments when EPA actions and decisions may affect tribal interests." The EPA has engaged in government-to-government consultation with the MHA Nation for over a year on UIC permitting issues and sought its input regarding tribal concerns about UIC well permit applications within the Fort Berthold Indian Reservation, including the application for Red Murphy SWD No. 1. Specifically, the EPA held tribal consultations with the Tribe on September 1, 2017, December 20, 2017, and September 11, 2018 concerning the application for Red Murphy SWD No. 1.

The Tribe cites one of the guiding principles of the Policy in support of its position that the EPA should deny the UIC permit application for Red Murphy SWD No. 1 on the basis of the Tribe's resolution – "EPA recognizes and works directly with federally recognized tribes as sovereign entities with primary authority and responsibility for each tribe's land and membership...." Where we have discretion to do so, the EPA has considered the Tribe's input and sought to address its concerns. See Responses 3 and 4 above. The Tribe further states that "[t]his Guiding Principle implements and is required by EPA's treaty and trust responsibility to the MHA Nation," and suggests that the Policy provides the EPA with the authority to deny the UIC permit application. However, the Policy does not create independent legal authorities separate from the SDWA, and as explained above in Response 1, the MHA Nation's treaties and the federal trust responsibility do not provide the EPA with the authority to deny UIC permit applications on the basis of the Tribe's resolution, and neither does the Policy.

6. **Comment 6:**
   EPA Environmental Appeals Board (EAB) decisions do not limit tribal authority and EPA's trust responsibility in issuing UIC permits. The MHA Nation is not aware of any EAB decision that would limit EPA's ability to consider and abide by MHA Nation resolution. None of the cited decisions considered the sovereign authorities of Indian tribes, EPA's govt-to-govt relationship with Indian tribes, EPA's ability to implement alternate UIC programs on tribal lands, and EPA's Policy on Consultation and Coordination with Indian Tribes. The SDWA and its regulations do not circumscribe this trust responsibility in any way. To the contrary, by incorporating tribe-specific provision authorizing EPA to promulgate an alternate UIC Program for Class II wells, applicable regulations acknowledge the unique trust relationship between federal agencies and Indian Tribes. Based on this review, there does not appear to be an EAB decision that would limit EPA' existing regulations, policy and responsibilities to defer to and coordinate with the MHA Nation.

EPA Response 6:

During the tribal consultation process for UIC permits, including for Red Murphy SWD No. 1, the EPA discussed the limitations on our authority with the MHA Nation, explaining that the SDWA does not authorize the EPA to implement the Tribe's laws in UIC permit decisions by the Agency. As the Tribe notes in its comments, the EPA provided a list of relevant EPA

Environmental Appeals Board (EAB) decisions that discuss limitations on the scope of the EPA's UIC permitting authority. These cases speak to the limited scope of the EPA's authority in issuing UIC permits and hold that matters of state or local law and property rights, which include pore space ownership, are outside the scope of the EPA's permitting authority.

The Tribe disputes the effect of these cases in this permitting decision and asserts that the application of the federal trust responsibility to federally recognized Indian tribes would allow the EPA to consider and abide by, and effectively implement, the MHA Nation Resolution No. 11-75-VJB. The Tribe asserts that the EAB has never before considered the following factors in these previous decisions: the sovereign authorities of Indian tribes, EPA's government-to-government relationship with Indian tribes, EPA's ability to implement alternate UIC programs on tribal lands, and EPA's Policy on Consultation and Coordination with Indian Tribes. Even if the EAB has not had the opportunity to consider these factors in prior decisions, the EPA Region 8 did consider these factors in the context of this permitting decision. Our analysis of our authorities under the SDWA is informed by EAB decisions. We address the scope of the EPA's SDWA legal authority, including the EPA's lack of authority under the SDWA and its regulations to condition or deny UIC permit applications based upon MHA Nation Resolution No. 11-75-VJB, in Responses 1 and 4. We address tribal sovereign authority in Response 1. We address the federal trust responsibility (i.e. – the government-to-government relationship) in Responses 1 and 4. We address alternate UIC programs in Response 2. We address EPA's Policy on Consultation and Coordination with Indian Tribes in Response 5.