NOTICE OF PROPOSED ACTION

QUESTAR MAIN LINE 3 WEBER CANYON REPLACEMENT PROJECT

March 2013

INTRODUCTION

The Salt Lake Ranger District, Uinta-Wasatch-Cache National Forest (UWCNF), has received a proposal from Questar Pipeline (Questar) to replace 3.26 miles of existing 16-inch natural gas pipeline, known as the Questar Main Line 3 Weber Canyon Replacement Project (project). The project is located on lands owned by the Weber Basin Water Conservancy District, Morgan County, Utah (Township 5 North, Range 1 East, Section 27), on National Forest System (NFS) lands in Davis County, Utah (Township 5 North, Range 1 East, sections 28 and 30), and on Davis County property (Township 5 North, Range 1 East, Section 29). The pipeline segment proposed for replacement occurs within a utility corridor along the foothills above the south side of U.S. Interstate-84 (I-84). The segment begins at the Questar Ogden Valley Block Valve (OVBV) located approximately 4.5 miles up Weber Canyon and extends to the west ending near the Weber Basin Canyon Road approximately 0.5 mile from the mouth of Weber Canyon. Questar proposes to start construction in 2014.

In compliance with the National Environmental Policy Act of 1969 (NEPA), the Forest Service will prepare an Environmental Assessment (EA) in order to determine if the project would result in significant impacts to the environment. The analysis will lead to a decision on whether and under what conditions to allow the pipeline replacement activities on NFS lands. The project would be approved by the Forest Service with conclusion of a Finding of No Significant Impact (FONSI). Based on preliminary internal and interdisciplinary review, it is anticipated that implementation of this proposal is not likely to result in significant environmental impacts, indicating that an EA is the appropriate level of analysis. If through scoping or our subsequent analysis it is determined that significant impacts could occur an Environmental Impact Statement may be prepared.

The purpose of the EA is to analyze and disclose the direct, indirect and cumulative effects of the alternatives for replacing the 3.26 mile segment of Main Line 3 pipeline that crosses land managed by the Forest Service. The Main Line 3 pipeline extends approximately 37.6 miles across private, county, state, and federal land from Questar’s Coalville Station to Questar’s Sunset Gate Station. It supplies natural gas to the Wasatch Front of northern Utah.

PURPOSE AND NEED FOR ACTION

The purpose and need of the action is to allow for Questar to continue providing a safe supply of natural gas to customers along the Wasatch Front. As part of Questar’s ongoing integrity management program, segments of the Main Line 3 pipeline, which was installed in the mid 1960’s, were identified as needing replacement. Replacement of these segments of line is necessary to improve operational reliability and guarantee the safe transport of natural gas. The replacement activities will not result in a reduction or abandonment of service, and will have a substantially equivalent designed delivery capacity. Natural gas delivery to the Wasatch Front would continue during construction via temporarily re-routing supply using existing lines.
Questar was granted a Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act by the Federal Energy Regulatory Commission (FERC) in the early 1960s to construct, operate, and maintain the Main Line 3 pipeline. The Main Line 3 pipeline exists within a right-of-way (ROW) administered by the Forest Service and authorized under Forest Service authorization SLC401210.

The FERC allows for replacement activities under Subpart F of 18 Code of Federal Regulations (CFR) Part 157.208, or pursuant to the authority of 18 CFR §284.3(c), under authority of a blanket certificate holder. Replacement activities are subject to certain cost and environmental requirements. If project costs and environmental requirements are met, the FERC allows a pipeline company to proceed automatically. If costs for the replacement activities exceed the automatic project cost limits, then a prior-notice filing is required to be submitted to the FERC. Based on Main Line 3 project cost estimates, Questar will need to file a prior notice application. In addition, Questar must obtain the requisite environmental clearances. Should the Forest Service reach a FONSI for the project, the prior notice (description of the planned project) would be filed with the FERC 60 days before the commencement of construction. The prior notice application would reflect the FONSI determination. However, if the Forest Service cannot conclude with a FONSI, then Questar must receive § 7(c) certificate authority from the FERC prior to commencement of construction. Notice of the planned project would be issued by the FERC and published in the Federal Register.

The EA will evaluate the Proposed Action and alternatives relative to the development and land use policies contained within the 2003 Revised Forest Plan Wasatch-Cache National Forest (Forest Plan). The EA will analyze and disclose the effects of the Proposed Action and alternatives for replacing the segment of Main Line 3 pipeline that crosses land managed by the Forest Service.

**DECISION FRAMEWORK**

In consideration of the stated purpose and need and the analysis of environmental effects, the UWCNF Forest Supervisor as the Responsible Official, will review the alternatives in order to make the following decisions:

- Whether to authorize the Proposed Action or an alternative to it;
- What mitigation measures and design features to require for the actions authorized; and
- What evaluation methods and documentation to require for monitoring project implementation and mitigation effectiveness.

**SCOPING AND ISSUE IDENTIFICATION**

The main purpose of public scoping is to get public input on the “scope” of the EA, the issues and concerns it addresses and the means it identifies to avoid or minimize adverse impacts (i.e., alternatives and mitigation measures). This Notice of Proposed Action summarizes the Proposed Action and invites comments regarding the scope of this EA. The Proposed Action and scoping results will be reviewed in order to determine the environmental issues and alternatives to the Proposed Action (40 CFR §1508.25). Issue statements will be formulated, organized by resource discipline, and reviewed and approved by the Responsible Official. They will include the issues to be analyzed in depth and those dropped from in depth analysis for various reasons (e.g., because they were beyond the scope of this environmental analysis, expressed opinions rather than raising issues, involved matters covered by other laws or
regulations, or were too speculative to effectively analyze). The issues to be analyzed in depth may be used to formulate alternatives.

**Preliminary Issues to be Analyzed in Depth**

A Forest Service interdisciplinary team met on January 14, 2013 to identify preliminary issues to be evaluated in the analysis and to discuss whether any potential issues could be dismissed from further analysis in the EA. Issues identified at the meeting included effects on air quality, vegetation, geology, soils, water resources, fish and wildlife, cultural and historical resources, scenic resources, land use and access/recreation, public health and safety, and socio-economics. The final set of issues to be analyzed in depth or to be dismissed from further analysis will be based on results of the 30-day public scoping period and the initial analysis of environmental effects. A discussion of the preliminarily identified issues to be analyzed in the EA is below.

**Air Quality**

- How would fugitive dust associated with construction affect air quality?

The acreage of disturbance under the Proposed Action would be minor, and best management practices (BMPs) defined in Questar’s Fugitive Dust Control Plan (Plan) and required by the Forest Service have proven adequate in controlling construction fugitive dust. Questar operates under an existing Plan that provides blanket coverage for projects disturbing more than 0.25 acres along the Wasatch Front and is in accordance with the requirements of the Utah Administrative Code R307-309. The Plan contains regulations that must be followed to manage fugitive dust.

- How would mobile source emissions associated with construction activities affect air quality in Weber Canyon?

Elements of the Proposed Action could increase emissions from mobile sources such as trucks and construction equipment and from the release of natural gas in the short-term.

Pollutants considered harmful to public health and the environment are monitored by the Environmental Protection Agency (EPA) under the National Ambient Air Quality Standards (NAAQS). Of the six NAAQS, particulate matter is the only emission likely to be carried forward into analysis. The release of other harmful pollutants is not expected to reach levels warranting analysis. Mobile sources of air pollutants during construction would be short-term and consistent with levels typical of a construction operation.

**Vegetation (including special status species (i.e., threatened, endangered, candidate, proposed, and sensitive species) and weeds)**

- How would the Proposed Action affect vegetation?

Clearing of vegetation would occur with the Proposed Action, affecting individuals or populations of existing vegetation. The ROW has been previously disturbed and does not support 100 percent cover by native vegetation communities. Required reclamation would involve the re-establishment of vegetation communities using approved seed mixes, possibly improving vegetation conditions in the ROW.
• How would the proposed project affect the spread of invasive and noxious weeds?

Noxious weeds currently exist within the project ROW. Construction activities associated with the project could further spread and/or increase invasive and noxious weed populations in the ROW and surrounding area. Questar has developed a Weed Management Plan that would be implemented prior to, during, and after construction to control the spread of weeds and/or eliminate them as part of reclamation activities. Activities include pre- and post-construction inventories and targeted treatments. Vegetation composition is likely to improve following reclamation activities that target removal of invasive species. The Weed Management Plan will be included in the EA as an appendix.

• How would the Proposed Action affect special status plant species?

No federally protected plant species or species listed as sensitive on the Forest Service Intermountain Region list or otherwise identified as species of concern are known to occur in the project area.

Geology and Soils

• How would construction activities affect the stability of slopes in Weber Canyon?

Construction activities associated with the Proposed Action may exacerbate existing slope failures or create new failures in Weber Canyon. A geotechnical report was completed for the project area and used in construction design. Temporary stabilization walls have been designed to withstand site-specific conditions and keep construction debris within the ROW. Potential hazards, such as boulders upslope of the ROW, would be identified and stabilized prior to construction. Geotechnical monitoring and stabilization practices would be implemented prior to, during, and after construction to minimize the potential for slope failures and prevent unforeseen failures and subsequent safety issues or impacts to other resources such as water and soils. Geotechnical inspectors would be on-site during construction.

Soils – Compaction and Erosion

• How would the Proposed Action affect soils?

The Proposed Action may negatively affect soil conditions due to compaction and erosion, resulting in decreased soil productivity and soil loss. Construction activities may result in soil loss via downslope transport of disturbed surfaces, and further affect water quality. Proper implementation of construction BMPs would be required to effectively mitigate potential short-term and long-term soil compaction and erosion.

Water Resources (including water quality, water rights, public water supplies, riparian areas, Waters of the U.S., and floodplains)

• How would the Proposed Action affect water quality in the Weber River?

The project area is located along the foothills to the south of the Weber River. The Proposed Action includes construction BMPs to control sediment transport. Hydrostatic testing will operate under a Utah Pollutant Discharge Elimination System (UPDES) permit, which regulates and authorizes storm water discharges to waters of the State of Utah resulting from construction activities, including construction
support activities. The UPDES permit contains stipulations requiring compliance with discharge limits that Questar would follow.

- How would the Proposed Action affect wetlands, riparian areas, and floodplains?

The ROW and access roads cross three ephemeral drainages. The drainages would be temporarily disturbed by construction activities. The U.S. Army Corps of Engineers (USACE) regulates these temporary impacts under the Nationwide Permit program. A preliminary jurisdictional determination (PJD) and Nationwide Permit 12 application documenting project disturbance will be submitted to the USACE in the spring of 2013. Upon concurrence with the PJD, the USACE will proceed with permitting and impose stipulations on construction activities to minimize disturbance and regulate that all impacts are temporary. The USACE stipulations will be included in the EA.

_Fish and Wildlife (including migratory birds, raptors, big game, and special status species (i.e., threatened, endangered, candidate, proposed, sensitive, and management indicator species))_  

- How would the proposed project affect fish and wildlife habitat and special status fish and wildlife species?

The area surrounding the ROW supports a variety of fish and wildlife species. While no federally protected species are known to occur in or near the ROW, several species included on the Forest Service Intermountain Region sensitive species list or other species of concern lists may occur. The proposed construction activities would temporarily alter habitat, but would occur within a previously disturbed ROW. Habitat improvements are also possible through reclamation activities such as the eradication of weeds. Increased human activity during construction could directly affect wildlife behavior and distribution in the short-term. In the absence of BMPs and other preventative measures, the Proposed Action could contribute suspended solid concentrations (e.g. sediment) from disturbed soil surfaces into the Weber River, which could directly affect fish species. Effects to water resources caused by soil erosion are also addressed under those respective sections.

_Cultural and Historical Resources_  

- How would the Proposed Action affect cultural and historical resources?

A cultural resources file search and Class III cultural resources inventory was conducted of the Main Line 3 pipeline segment ROW and construction staging areas. The Proposed Action would occur within a previously disturbed ROW. The Proposed Action is not likely to impact cultural and historical resources.

_Scenic Resources_  

- How would the Proposed Action affect the scenic integrity of the project area?

Construction activities and vegetation alteration could affect the views experienced by Weber Canyon visitors, through-travelers on I-84, and others that spend time in and around Weber Canyon. The current viewshed through this section of Weber Canyon includes evidence of the previous activities in the ROW. The change in appearance would be most evident during construction. The Proposed Action includes reclamation activities aimed to return the viewshed to its current condition.
Land Use and Access/Recreation

- How would the proposed project affect land use and access in the area, including recreation opportunities?
- How would the proposed project affect recreationists that use the area for hiking, fishing, and hunting?

The Proposed Action is expected to occur over a five to six month period. It is not expected to alter current levels of land use and access to the area in the long-term. The ROW is not readily accessible and does not experience much use by the public; it does not provide access to recreation destinations. Other operators in the ROW would be alerted of the construction project prior to the commencement of activities.

Public Health and Safety (including Transportation (i.e. Traffic Controls), and Hazardous and Solid Waste)

- How would the proposed project affect public health and safety?

Construction activities associated with the Proposed Action could result in traffic delays. Due to the location of the ROW above I-84, the potential for construction debris to reach I-84 was identified. A proposed Utah Department of Transportation (UDOT) approved closure of approximately 0.5 mile of one I-84 eastbound lane would be coordinated to allow for safe on/off access to the ROW and to protect through-traffic from construction debris. This proposed closure would be short-term.

- What types of waste would be produced associated with construction activities?

Decommissioning of the existing pipe has the potential to produce construction waste and release harmful materials associated with the existing pipe into the environment. Questar BMPs include the proper handling and disposal of waste, including any hazardous materials. The BMPs for handling and disposal of wastes will be documented in the EA.

Socio-economics

- How would the Proposed Action affect local communities?

Construction activities would allow for a short-term increase in employment opportunities. The Proposed Action has the potential to result in beneficial effects to socio-economics of surrounding communities through the short-term creation of jobs and the long-term improvement in natural gas delivery.

Preliminary Issues Considered But Not Analyzed in Depth

Energy Production

- How would the proposed project affect the supply of natural gas?

Main Line 3 supplies the Wasatch Front of northern Utah with natural gas, and is especially important in seasons of higher gas demand. The temporary loss of this segment of Main Line 3 during construction would be offset with re-routing activities and conducting construction during low-demand season. The
segment is necessary to supply the levels of gas relied upon in the cooler months of fall and spring and throughout the winter season.

**Environmental Justice**

- How would the proposed project affect minorities, low-income individuals, Native Americans, women, or any civil liberties?

The decision made related to this proposal is not anticipated to have any disparate impacts to individual groups of people or communities. It would not adversely affect minorities, low-income individuals, Native Americans, women, or any civil liberties.

**Fuels and Fire Management**

- How would the proposed project affect fuels and fire management?

There is an increased risk of fires during construction of the Proposed Action. BMPs and a project-specific Fire Management Plan would be implemented during construction to minimize or eliminate the potential for accidental fires. The Fire Management Plan will be included in the EA as an appendix.

**Greenhouse Gas Emissions**

- How would the proposed project affect greenhouse gas emissions?

The Council on Environmental Quality (CEQ) indicated in a February 18, 2010 memo to all federal agencies that analysis of the impacts of greenhouse gas emissions below 25,000 metric tons may not be meaningful and are not warranted. The estimated quantities of CO₂ equivalents during construction would be below this threshold for analysis.

In addition, an evaluation of greenhouse gas emissions is not warranted because:

- No standards have been set by regulatory agencies.
- There is no method to measure their direct and indirect impacts.
- Assessment of greenhouse gas emissions and climate change is still being defined.
- Global scientific models are inconsistent and regional or local scientific models are lacking so it is not technically feasible to determine net impacts.

**Native American Religious Concerns**

- How would the proposed project affect Native American religious concerns?

Based on the cultural resources file search and Class III cultural resources inventory for the area to date, no Native American religious concerns are associated with the project area.

**Paleontology**

- How would the proposed project affect paleontological resources?
No known paleontology resources are known to occur within the project area. If paleontological resources are discovered, construction would cease, pending a determination of significance.

**ALTERNATIVE FORMULATION**

At this time only two alternatives have been formulated. The EA will analyze the direct, indirect, and cumulative effects of the Proposed Action - Alternative 1 and No Action – Alternative 2. The Proposed Action and the No Action alternatives are described in detail below.

Alternatives suggested through comment on this Proposed Action or identified through the initial analysis of environmental effects will also be considered. Such alternatives may be analyzed in detail, or they may be considered but not carried into detailed analysis if the Responsible Official believes it is appropriate to eliminate them. Scoping may also result in additions to the list of issues to be analyzed in depth, which follows the presentation of alternatives below.

**ALTERNATIVE 1 - PROPOSED ACTION**

The Proposed Action consists of construction activities associated with the replacement of 3.26 miles of existing 16-inch natural gas pipeline within an existing utility ROW. The ROW Grant was approved by the BLM at the time of original construction. Construction activities would occur in 2014. Land ownership across the 3-mile segment includes NFS land, Davis County, and Weber Basin Water Conservancy District. The project area extends along the south side of I-84 westward from the Questar OVBV to the Weber Basin Canal Road near the mouth of Weber Canyon (Station 339+59) (Figure 1 – Project Overview). The existing piping would be deactivated and removed; new pipe would be installed, tested, and placed in service. The proposed activities are discussed in three phases: Phase 1 - Preliminary Construction Work, Phase 2 - Standard Pipeline Construction, and Phase 3 - Clean-up, Restoration, and Reclamation.

Initial design investigations that have been completed include:

- Project Design -geotechnical studies, identification of the pipeline centerline, work areas, project staging areas, access points and roads, and temporary retaining structures.
- Baseline Field Surveys of the Project Area –
  - Jurisdictional Waters of the U.S.,
  - Archaeological, historical, and cultural resources, and
  - Wildlife and vegetation - threatened, endangered, candidate, and proposed species and Forest Service species of interest, raptor nests, and weeds.

Coordination with state and federal resource management agencies will continue, and any agency recommended or required follow-up or pre-construction surveys would be conducted.

**Phase 1 - Preliminary Construction Work**

Establishment of construction access would be necessary to safely access the project ROW. Preliminary construction work would include a proposed UDOT-approved closure of approximately 0.5 mile of one I-84 eastbound lane to allow for on/off access to the project and to protect through-traffic from construction...
debris. The proposed closure would likely last the duration of project construction, from May to September 2014. Final closure procedures and schedule will be planned with and stipulated by UDOT.

General grading work would be performed on all access roads listed on Figure 1 – Project Overview as required to accommodate construction traffic. It is anticipated that minor grading work would be required to maintain the roads during construction activities. Following construction, the access roads would be reshaped and restored to pre-construction condition. They would not be maintained for continued use. The roads would be assessed if active construction was required at a later date. One access road would be used on Forest Service land (access road #6 in Section 28).

Prior to construction, the section of the Main Line 3 pipeline that is proposed to be replaced would be isolated from the Ouestar OVBV to the east and the Sunset Gate Station to the west. The natural gas trapped in this section would be vented to the atmosphere through the vent stacks at the Questar OVBV. This release of natural gas is regulated by the State of Utah under a blanket air permit, which Questar currently possesses. A second release event would occur following construction and prior to placing the segment back in operation. Local emergency response agencies and adjacent landowners would be contacted prior to this activity.

To re-establish the ROW to meet construction standards, vegetation would be cleared and the ROW graded to a maximum width of 75 feet. In areas of steep terrain, it would be necessary to reduce the ROW construction width and construct retaining walls. Locations of retaining walls are shown on Figure 1 – Project Overview. The ROW crews would follow the retaining wall building crews to complete final clearing and grading of the ROW.

**Phase 2 - Standard Pipeline Construction**

Standard pipeline construction consists of the following tasks:

- Removal of the existing pipeline
- Trench excavation
- Pipe stringing (lay pipeline out along the ROW)
- Use of hydraulic bending machine to bend pipe to conform with the bottom of the trench and weld joints together
- Place backfill over new pipe in the trench

**Stove Pipe Pipeline Construction**

Stove Pipe Pipeline construction is a process that requires construction practices of Standard Pipeline Construction to be performed in one location on one joint of pipe at a time. For the given section, the original pipe is excavated and removed. The final ditch is then excavated for the new pipe joint. The pipe joint is pre-bent if required and then carried to the location. The joint is then welded in the trench to the previously installed section.

**Cleaning, Testing, Drying and Tie-In of the Pipeline**

Once the entire section of pipeline has been replaced, the pipeline would be cleaned by using compressed air to push foam cleaning tools called “pigs” through the pipeline.
Hydrostatic testing would be conducted to verify that the pipeline maintains test pressure per UDOT 49 CFR Part 192. Questar would conduct hydrostatic testing under an Authorization to Discharge under the UPDES General Permit for Construction and Dewatering and Hydrostatic Testing. Hydrostatic testing would consist of pumping water into the pipeline from the Weber Basin Canal. Once the pipeline maintains the required test pressure it would be qualified for service. The test water would then be pumped to either the west or east of the pipeline and discharged into a diversion structure. Samples and testing would be conducted as specified in the permit and submitted to the State of Utah. All water withdrawal and discharge activities would be permitted through the Weber Basin Water Conservancy who manages these waters.

A caliper tool would be used to test for any anomalies and then the pipeline would be dried and given a final cleaning and air purge before it is tied into the existing natural gas pipeline system.

**Phase 3 - Clean-up, Restoration, and Reclamation**

The ROW fill material would be replaced as near as practicable to pre-construction conditions. Retaining fences would then be deconstructed and associated material would be removed from the ROW. Any top soil that was salvaged would be replaced.

Permanent waterbars would be constructed in any areas where they previously existed. Any erosion control measures that must be left in place until the area is re-vegetated, would be left in good condition and monitored in accordance with FERC requirements. The ROW would be reseeded with a Forest Service-approved seed mix. Reclamation monitoring, including weed inventories, would be conducted for a minimum of three years. Follow-up weed control and reclamation practices approved by the Forest Service would be implemented as needed. Monitoring results and follow-up treatments would be reported to the Forest Service annually.

**Construction and Post-construction Erosion Control Best Management Practices**

The following erosion control methods and stabilization and structural practices would be used during and/or after construction:

**Erosion Control Methods**

Temporary erosion control measures would be installed concurrently with construction earthwork and would be maintained throughout the course of construction in order to effectively reduce erosion and sedimentation to sensitive resources. Sediment barriers and water bars would be the primary measures for temporary erosion control used on the project. When necessary, these measures may be left in place along with permanent measures during the post-construction period until effective revegetation has been reestablished.

Permanent erosion control measures would be used when necessary to minimize erosion and sedimentation after construction until revegetation efforts have effectively stabilized the construction area. Installation of permanent erosion control measures would be performed within 14 days following backfilling of the trench except in areas where the construction ROW has been restricted, requiring temporary use of the zone over the backfilled trench for spoil storage as construction continues along the ROW. Contractors would install permanent erosion control measures within 10 days, if possible,
following "temporary" use of these areas for spoil storage. Temporary erosion control measures would be removed after permanent erosion control measures have been installed.

Details regarding the materials, installation requirements, and performance criteria for temporary, interim, and permanent erosion and sediment control measures will be included in the EA.

**Stabilization Practices**

Mulching is the application of noxious weed-free straw or wood fiber to disturbed soils to minimize the effects of wind or rain on exposed soils. During rainy conditions, mulch reduces the impact of rainfall and slows the flow of water down the slope. Mulch, rather than erosion control mats, would typically be used across large sections of the ROW to reduce wind erosion and raindrop impact, if needed. Application of mulch for temporary erosion control is based on slope surface type and condition (i.e., sand, clay, rock, etc.), slope steepness, and the amount of exposed surface area not covered by plant residue.

If mulching is necessary, it would be monitored for adequacy in area coverage and cover thickness during application. Application rates would be adjusted, as necessary, to provide adequate coverage. Mulch would be reapplied to areas where erosion repairs are necessary.

During construction, water or non-toxic, organic tackifier may be applied to topsoil storage mounds composed of soils with high wind erodibility at 120 pounds/acre. Tackifier would not be applied within 100 feet of a watercourse or wetlands.

If reclamation and seeding is deferred more than 10 days after final grade restoration near water bodies or wetlands, all disturbed slopes above the water body or wetland would be temporarily stabilized by applying 2000 pounds/acre of straw mulch for a minimum distance of 100 feet above the edge of the water body or wetlands. Similar temporary stabilization may be used on slopes steeper than 30 percent. Interim seeding may also be performed. Seed bed preparation, including thinning or removal of the mulch, would be repeated as necessary prior to application of the final seed mix.

If needed after final restoration and seeding, permanent mulch applications would be applied to slopes greater than 30 percent, slopes within 100 feet of water bodies and wetlands, and other sensitive sites (i.e., dry, sandy, steep slopes, etc.) to control erosion. Where appropriate, contractors would randomly distribute any windrowed shrubs or other remaining vegetation debris over the ROW.

After final grade restoration, erosion control matting may be installed, as necessary, to reduce rain impacts on soils, to control erosion and to stabilize steep slopes and water body banks. Erosion control matting would typically be used on stream banks and slopes steeper than 3:1.

Revegetation would follow, as soon as possible after final clean-up of the ROW, with the agreement of the landowner or land management agency. Seed mixes, rate of application, types and rates of application of fertilizer, and the revegetation schedule would be project specific and agreed upon with the Forest Service.

**Structural Practices**

Structural practices would be used to divert flows from exposed soils, store flows, or otherwise limit runoff and discharge of pollutants from exposed areas of the site.
Trench breakers would be installed in the trench to restrict or slow ground water flow along the trench line. Water bars are utilized in various forms (e.g., rolling dips on access roads, drivable berms across travel ways, water bars on slopes) during project construction and after final grade restoration. Water bars are intended to intercept water traveling down a disturbed slope and divert water off disturbed soil into stable, well-vegetated, or adjacent rocky areas.

If necessary, temporary water bars would be installed concurrently with initial grading operations and would be maintained throughout construction. Permanent water bars would be installed after the ROW grade is restored if needed. Although site and project-specific details may differ, the spacing for temporary and permanent water bars would be generally as follows:

<table>
<thead>
<tr>
<th>Slope (%)</th>
<th>Spacing (feet)</th>
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<tbody>
<tr>
<td>5 to 15</td>
<td>300</td>
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<tr>
<td>15 to 30</td>
<td>200</td>
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<tr>
<td>&gt; 30</td>
<td>100</td>
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Water bars would be constructed of existing suitable material (compacted soil), a series of tightly abutted straw bales, excelsior logs, or burlap bags filled with native soil. The installation angle would be approximately two to five percent down slope and would extend beyond the edge of the disturbed construction area. Where possible, water bars would discharge into stable, non-erosive (vegetated or rocky) receiving areas.

In isolated instances where water bars discharge into unstable or highly erosive areas without rock or vegetation flow, energy dissipaters or "J-hook" shaped sediment barriers would be positioned at the water bar outlet. However, decreasing spacing or adjusting the spacing to locate outlets onto a stable site is preferable to using outlet energy dissipaters. When allowed by existing topographic conditions the flow energy dissipaters would be offset (staggered) on slopes greater than 20 percent.

Contractors would regularly inspect and repair water bars during construction to maintain their effectiveness. Water bars worn down by heavy construction traffic or filled with sediments would be repaired as needed, and the sediments would be spread on the disturbed ROW uphill of the bar.

**ALTERNATIVE 2 – NO ACTION**

Analysis of the No Action alternative is necessary to provide an accurate contrast with the Proposed Action. Under the No Action alternative, the Main Line 3 pipeline would not be replaced and no ground disturbing activities would occur. Customers along the Wasatch Front rely on natural gas, primarily for heating homes in the winter. Main Line 3 is a primary supplier of natural gas for the Ogden region, but the pipeline is nearly 50 years old and is scheduled for replacement in accordance with standard system maintenance practices. If this pipeline was not replaced, this critical peak demand supply would be at continually increasing risk for safety and reliability concerns. Should this source be interrupted during the peak demand months, a significant loss of natural gas service would be experienced in this region.