

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Phillips 66 Pipelines
Proposed Implementation Date:	Summer 2020
Proponent:	Phillips 66 Carrier, LLC
Location:	Township 21 North, Range 5 East, Sec. 11 (Missouri River Bed– Public Land Trust)
County:	Cascade County

I. TYPE AND PURPOSE OF ACTION

Phillips 66 Carrier, LLC has applied to DNRC for Right of Way Easements for two pipelines (one 8" and one 12" parallel to each other) under the Missouri River. Both pipelines were installed in the 1960's, and the 12" pipeline needs to be replaced to maintain integrity of the line. These pipelines are part of infrastructure which delivers crude oil from Canada to refineries in Billings. In discussions with DNRC, the proponent discovered neither pipeline has a current easement. Both river-crossing sites are located in T21N-R5E-Section 11 in Cascade County. The State of Montana owns the riverbed of navigable waterways, low watermark to low watermark. Phillips 66 Carrier, LLC has applied to Department of Natural Resources and Conservation (DNRC) for a Right of Way Easement for both pipelines.

The 8" pipeline is 639.25' from low watermark to low watermark, under the Missouri River. The existing 12" pipeline would be removed and replaced approximately 50' upstream. The proposed new 12" pipeline would be 652.8' in length from low watermark to low watermark, under the Missouri River. This site is located approximately 11.5 miles northeast of Great Falls, MT and approximately 1 mile downstream from Morony Dam. Please see the attached maps, exhibits and photographs.

The new 12" pipeline would be installed using horizontal directional drilling methods at approximately 60 feet below the riverbed. The pipeline would be installed and connected to existing pipelines on both sides of the Missouri River. The Montana Department of Fish, Wildlife and Parks and a private landowner own the land adjacent to pipeline crossing of the Missouri River.

The proponent has applied for the appropriate permits required in the Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Water Bodies. Phillips 66 would install the new 12" pipeline after obtaining the necessary permits. The proponent wishes to begin construction in June with project completion by August 2020.

Please see attached photos and construction drawings prepared for the Phillips 66 Carrier, LLC by Terracon Consulting Engineers & Scientists for locations and details of the project.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

The DNRC did not perform any formal, public scoping for this project. Regulatory agencies, landowners, lessees were informed of the project via the Joint Application for Work in Montana's Streams, Wetlands, Floodplains, and Other Water Bodies and/or the DNRC Right of Way Easement process. All required permits from the Joint Application would be sent to DNRC upon approval.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

The following permits are required under the Joint Application for Proposed Work in Montana's Streams, Wetlands, Floodplains, and Other Water Bodies.

- Cascade Conservation District: 310 Permit – application in progress
- Floodplain Permit – application in progress

- US Army Corps of Engineers: Section 404 Permit – application in progress
- Montana Department of Environmental Quality: 318 Permit and 401 Certification – application in progress
- Montana Fish Wildlife & Parks: SPA 124 Permit – Only applies to State Governmental Agencies, not applicable for Phillips 66.

3. ALTERNATIVES CONSIDERED:

Alternative A (No Action): Deny the request to issue an easement to permit the installation of one new and one existing oil pipeline under the Missouri River bed. This alternative would require Phillips 66 Carrier, LLC to find an alternative delivery method of crude oil to refineries in Billings.

Alternative B (Proposed Action): Approval of the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River, installation depths would be 60 feet below the riverbed.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The area of the proposed project is rural, approximately 11.5 miles northwest of Great Falls, MT. This section of the Missouri River is classified as navigable.

Removal of the existing 12" pipeline would require the proponent to excavate streambed material. Upon removal, the streambed material would be replaced. The locations for drilling and connecting the new 12" pipeline to existing lines would be approximately 730 feet from the southeast side and 550 feet from the west side banks of the Missouri River. Pipelines would be installed using horizontal directional drilling, burying the pipe 60 feet below the riverbeds. The horizontal directional drilling equipment would be used on FWP and privately-owned surface. The entry and exit work areas would be 200'x200' with excavated work areas of approximately 10'x15'x5' deep to contain drilling mud. When installation is complete, these work areas would be backfilled and fully reclaimed.

No State of Montana Trust Land surface would be impacted. This drilling method would not impact geology or soils of the Missouri River beds.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues will continue. No direct impacts to geology and soils would occur.

Alternative B (Proposed Action): Approval of the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River, installation depths would be 60 feet below the riverbed, would result in minimal impacts to geology and soil quality, stability and moisture.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The proposed project would occur under the Missouri River bed. As noted in Item 4 *Geology and Soil Quality, Stability and Moisture*, the use of excavated areas in entry and exit locations during construction would reduce soil erosion into the waterways. The distance of the excavation sites and staging areas are far enough away from the banks to minimize any water quality impacts. The pipelines would be transporting crude oil from

Canada to the refineries in Billings, MT. The pipelines would be installed at 60 feet below the river beds, impacts to water quality, quantity and distribution of the Missouri River would be minimal.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to water quality, quantity or distribution.

Alternative B (Proposed Action): Installation depths would be 60 feet below the riverbed, minimal impacts to water quality, quantity or distribution would result

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Installation of the pipelines would occur between 6/1/20 and 8/15/20. The proponent plans to use watering of dry soil at the excavation and staging areas to decrease wind erosion and reduce risk of negatively impacting air quality. The short construction time would have minimal cumulative effects to air quality in the immediate vicinity of the project.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to air quality.

Alternative B (Proposed Action): Due to the temporary duration – significant, long-term, adverse impacts to air quality are not anticipated. Dust mitigation may be required.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The State of Montana claims ownership of navigable waterways, low watermark to low watermark, including those of the Missouri River. Vegetation of these areas is limited to aquatic species. The pipelines would be installed 60 feet below the river bed. Aquatic vegetation cover, quantity and quality would not be impacted.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to vegetation cover, quantity and quality.

Alternative B (Proposed Action) Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. No impact would occur to vegetation on state owned riverbeds.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

State owned riverbeds are not habitat to terrestrial or avian wildlife; therefore, this document only addresses aquatic species and habitat.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to terrestrial, avian and aquatic life and habitats.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. This project should have no impacts aquatic life and habitats of state-owned riverbeds.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

A search of the Montana Natural Heritage Program database indicated that there were two species of concern with point observations in Township 21 North, Range 5 East Section 11: American White Pelican and Franklin's Gull. There are reptiles, fish and vascular plants which are species of concern to have known occurrences in Section 11. The occurrence polygons are determined by items including point observations, confirmed breeding areas, waterways where the species has been confirmed, with a buffer area determined to include travel ranges of the species. The species with occurrence polygons in Section 11 are: Great Short-horned Lizard, Spiny Softshell, Blue Sucker, Sauger, and Silver Bladderpod.

Cumulative effects to these species is anticipated to be one-time, short duration during the construction phase of this proposal.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to unique, endangered, fragile or limited environmental resources.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. The depth of the pipelines from the state-owned riverbeds would have minimal impacts to unique, endangered, fragile or limited environmental resources.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

A Class I (literature review) level review was conducted by the DNRC staff archaeologist for the area of potential effect (APE). This entailed inspection of project maps, DNRC's sites/site leads database, land use records, General Land Office Survey Plats, and control cards. The Class I search revealed that no cultural or paleontological resources have been identified in the APE. Because the APE on state land is the active riverbed, no additional archaeological investigative work will be conducted in response to this proposed development. However, if previously unknown cultural or paleontological materials are identified during project related activities, all work will cease until a professional assessment of such resources can be made.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The existing 8" pipeline and the new 12" pipeline are in a rural part of Cascade County, approximately 11.5 miles northeast of Great Falls, MT. There is a public walking trail on the northwest side of the Missouri River which originates from Morony Dam. Part of a loop of the trail may be closed for public safety due to the close proximity of the work area.

The existing pipeline and the new pipelines are to be below the bed of the Missouri River, so it will not be visible, except for any above ground warning/safety markers on FWP and private land surfaces. Short term construction time would have one-time, minimal impacts to aesthetics of the area.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to aesthetics.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. Short term impacts to aesthetics of the area.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

The area does not contain limited resources. Nearby activities consist mostly of agricultural and recreational activities.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to demands on environmental resources of land, water, air or energy. Phillips 66 Carrier, LLC would have difficulty with limited options for operation and maintenance of pipelines, supply pressure and quantity may be limited.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

Other permits that are required by other local, state or federal agencies or departments for the proposed project are listed above in Section 2 of this document.

There are no other definite known future government actions planned for this Public Land Trust property. However, there is a potential future action of removing portions of these pipelines due to system failure from beneath the navigable riverbed of the Missouri River. If this action is pursued, it would likely go through the Joint Application process and each agency would then issue the appropriate permits.

IV. IMPACTS ON THE HUMAN POPULATION
<ul style="list-style-type: none">• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i>• <i>Enter "NONE" if no impacts are identified or the resource is not present.</i>

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

The proposed project could create human health and/or safety risks associated with the horizontal directional drilling process of installing these pipelines. However, excavation and staging sites are not located on State of Montana Trust Lands.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to human health and safety.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to industrial, commercial and agriculture activities and production.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. No impacts to agriculture activities and production.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to quantity and distribution of employment.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. No lasting impacts to quantity and distribution of employment.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No direct impacts to local and state tax base and revenues.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. No lasting impacts to local and state tax base and revenues.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. Demand from residents for safe, quality water with pressure would increase to the City of Great Falls.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. No anticipated change to traffic patterns.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

Implementation of the No Action Alternative or either Action Alternatives is not expected to conflict with any locally adopted plans.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Alternative A (No Action): No work would occur. Existing conditions would persist, and on-going maintenance and delivery issues would continue. No impact to access to and quality of recreational and wilderness activities.

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. No impact to access to and quality of recreational and wilderness activities over state owned riverbeds.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

Implementation of the No Action Alternative or either Action Alternative is not expected to have significant adverse impacts to density and distribution of population and housing.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

There are no native, unique or traditional lifestyles or communities in the vicinity that would be impacted by implementation of the No Action Alternative or either Action Alternative.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

Implementation of the No Action Alternative or either Action Alternative is not expected to have a significant adverse impact on cultural uniqueness or diversity.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The State of Montana would receive a one-time fee for each easement. The fee for the easement is based on a per rod basis and was determined by the Real Estate Management Bureau. The cost of the Right of Way Easements to Phillips 66 Carrier would be \$659 for the 8" pipeline and \$712 for the 12" pipeline. The Public Lands Trust is the beneficiary of this payment since it involves a navigable river.

EA Checklist Prepared By:	Name: Heidi Crum	Date: 4/15/20
	Title: Helena Unit Manager	

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B (Proposed Action): Approve the request to issue an easement for an existing 8" pipeline and a new 12" pipeline installed using horizontal directional drilling under the Missouri River. Installation depths would be 60 feet below the riverbed. The pipelines will be installed 60 feet below the riverbed using horizontal directional drilling. This Alternative also allows for the pipeline to be installed in a manner that does not cause any disturbance to the riverbed surface.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

This project would update existing infrastructure to improve efficiency and safety while assuring appropriate compensation to the trust beneficiary. The potential for significant adverse impacts to Public Trust Lands (the navigable riverbed) are reduced by the nature of the Horizontal Directional Drilling technique. No impacts resulting from this project are regarded as severe, enduring, geographically widespread, or frequent. Further, the quantity and quality of various resources, including any that may be considered unique or fragile, will not be adversely affected to a significant degree. There is no precedent for future actions that would cause significant impacts, and there is no conflict with local, State, or Federal laws, requirements, or formal plans. In summary, I find the identified, adverse impacts will be avoided, controlled, or mitigated by the design of the project to the extent the impacts are not significant.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

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EIS

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More Detailed EA

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No Further Analysis


EA Checklist Approved By:	Name: Andy Burgoyne Title: Trust Lands Program Manager
Signature: 	Date: April 16, 2020

Photo location points.



From Photo Point 1, the view is looking northwest. Existing pipeline locations are indicated by yellow flagging, and a faint pipeline scar can be seen going up the hill.



From Photo Point 1, the view is looking southeast towards the Missouri River. The two existing pipeline locations are indicated by yellow flagging. The flagging on the left in this photo is the 12" line to be removed and will be replaced parallel to the 8" line on the right side of this photo.



From Photo Point 2; the view is looking southeast over the Missouri River. Yellow flagging indicates the location of the existing 8" line which will remain in place.



From Photo Point 2; the view is looking northwest with yellow flagging indicating the location of the 8" pipeline.



From Photo Point 2 (approximately 50 feet downstream from the 8" pipeline); the view is looking southeast over the Missouri River of the location of the 12" pipeline which will be removed.



From Photo Point 2; the view is looking northwest with yellow flagging indicating the location of the 12" line which will be removed.



