

ATTACHMENT D
Oregon Wetland Memorandum

To:	Tara McLain	From:	Zach Baer, PWS
	BLM		Stantec
File:	2272020011	Date:	June 4, 2020

Reference: Zayo UTR Project - Wetlands and Waters Avoidance in BLM Lands - Prineville to Oregon Border

INTRODUCTION

Zayo Group, LLC. proposes to construct a buried fiber optic line between Prineville, OR and Reno, NV following developed roadways. They have committed to fully avoiding impacts to Waters of the US (WOUS), to include wetlands, streams, and waterbodies. This will be accomplished by moving the trench for the line away from WOUS and into the road shoulder, or where that is not feasible, using avoidance construction techniques including horizontal directional drilling (HDD) and bridge attachments. This memo describes the methods Stantec used to identify the locations of WOUS within BLM lands from Prineville, OR to the Oregon/California border, for purposes of full avoidance of wetlands and waters during construction.

METHODS

In 2019, Stantec biologists conducted wetland and stream delineations in the study area road corridor from north of Prineville to the Oregon border. Preliminary field targets were determined using USFWS National Wetland Inventory (NWI) mapping, USGS National Hydrography Dataset streams, and NRCS Soil Surveys. Additionally, potential targets were identified through a thorough review of aerial imagery along the route. While conducting field work, crews also surveyed additional suspect areas identified from the road. These delineations were regarded as preliminary and were used to inform avoidance of WOUS.

Following field delineations, Stantec Senior Wetland Scientists Steve Reidsma, PWS 1842 and Zach Baer, PWS 2423 traveled the route to demarcate avoidance areas for Zayo. This involved reviewing field data collection locations and other suspect areas based on topography and vegetation. Distance from the roadway's Edge of Pavement (EOP) to the WOUS was measured. EOP was chosen to demarcate avoidance as Zayo engineers plan placement of the line based on distance from EOP. The cable will be buried within the ROW and will not cross fence lines. When aquatic resources occurred outside of fencelines, avoidance distances were not recorded.

AVOIDANCE OF WOUS

Between Prineville, OR and the Oregon/California border, the proposed line runs through 53.7 miles of BLM land. The majority of this land is dry scrub, with several intermittent and ephemeral stream drainages mapped by NHD, some small wetlands mapped by NWI, and a playa west of Lake Abert.

Avoidance of WOUS can typically be accomplished by remaining within the gravel road shoulder when the roadway is abutting wetlands or streams. However, in some cases that is not practical due to small or low shoulders. In some cases when the road crosses streams with large culverts or bridges, avoidance will be accomplished by HDD or bridge attachment.

Avoidance: The majority of the NHD mapped streams that cross the study area in BLM land were found not to have any indications of bed or bank (Photos 1, 2). No avoidance was advised through these areas. However, evidence of bed and bank was found at some NHD mapped streams (Photo 3). If the stream was

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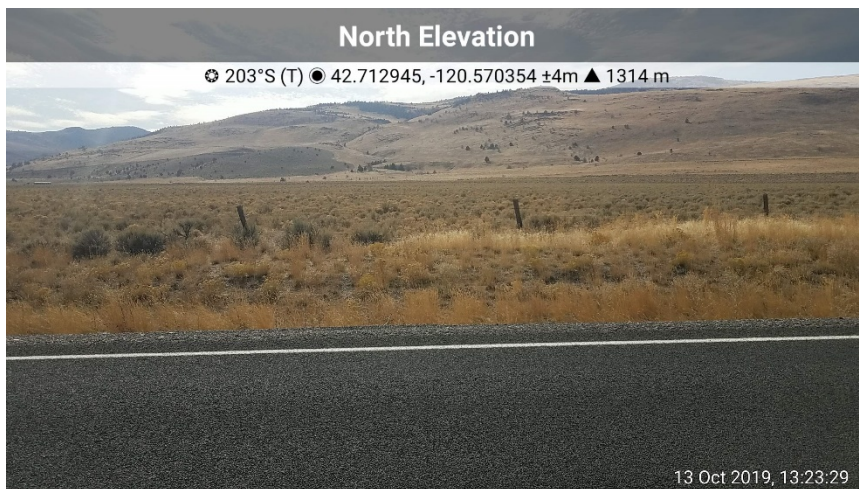
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crossed by a bridge, avoidance distance was advised as 0 feet, necessitating use of HDD or bridge attachment. If the stream was crossed by a culvert, distance from EOP to the culvert inlet and outlet was noted (see Figure 1 for example of avoidance demarcation along the stream seen in Photo 3). For some deeply embedded culverts, the line trench can be placed over the culvert within the road embankment, else the culvert will require HDD.

Photo 1: Example of no bed or bank on mapped NHD stream



Photo 2: Example of no bed or bank on mapped NHD stream



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Photo 3: Example of mapped NHD stream with bed and bank



Figure 1: Stream avoidance with avoidance distance from EOP in feet



Several wetlands were flagged for avoidance through BLM lands (Photo 4, see Figure 2 for avoidance). Zayo may utilize HDD or utilize equipment that will allow them to remain fully within the road shoulder to avoid wetlands. The largest aquatic resource feature the route runs through on BLM land is a playa west of Lake Abert (Photo 5). Not all portions of playas are defined as WOUS under USACE jurisdiction (see *Delineating Playas in the Arid Southwest* [Brostoff et al. 2001]). However, to avoid possibility of triggering USACE jurisdiction, all portions of the playa were advised for avoidance. In a number of locations on BLM land the

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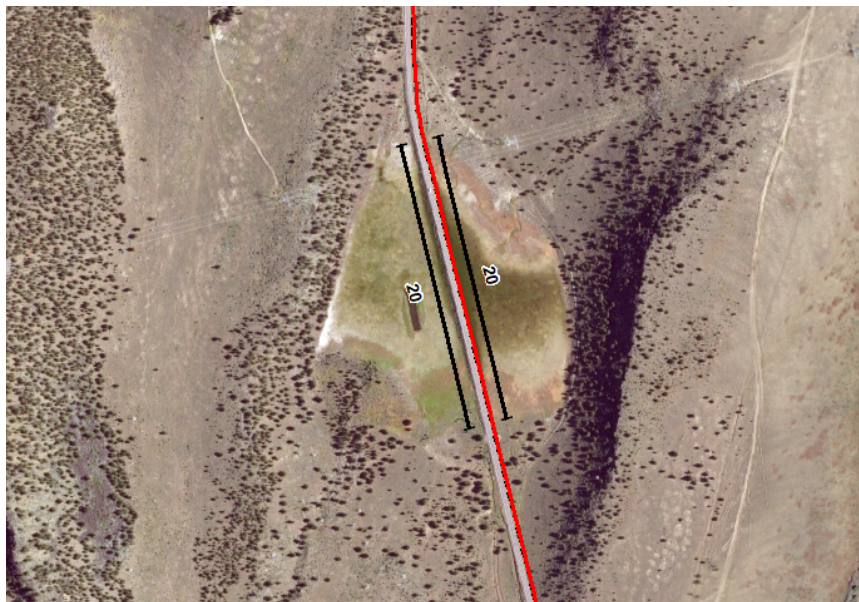
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edge of the playa is within 5 feet of EOP. Depending on available construction methods, Zayo may HDD some portions of the playa or remain within the road shoulder.

Photo 4: Example of wetland flagged for avoidance



Figure 2: Wetland avoidance with avoidance distance from EOP in feet



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Photo 5: Playa



CONCLUSION

From Prineville to the Oregon border, there are relatively few aquatic resources abutting the proposed Zayo fiber optic route on BLM land. Wetlands and waters are more prevalent along the route in Private lands, mostly utilized for agriculture. In constructing the line, Zayo will fully avoid impacts to wetlands and waters along the route by the use of HDD, bridge attachments, and work in the road shoulder.

REFERENCES

Brostoff, W., R. Lichvar, and S. Sprecher. 2001. Delineating Playas in the Arid Southwest: A Literature Review. U.S. Army Engineer Research and Development Center, Hanover, NH.

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