



CHAMBERLIN ROAD PLANNING AND ENVIRONMENTAL LINKAGE (PEL) STUDY

PROJECT ID: MPO 20-03

A STUDY FOR:

*THE CASPER AREA METROPOLITAN PLANNING ORGANIZATION
AND THE TOWN OF MILLS*



CASPER AREA
METROPOLITAN PLANNING ORGANIZATION
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1.0 INTRODUCTION

1.1 Background, Study Location and Description

This Planning and Environmental Linkage Study (PEL Study) has been prepared to address ongoing issues related to storm water, slope, and secondary access concerns in the vicinity of Chamberlin Road as shown on Figure 1. The study provides local governments and citizens with the opportunity to conduct and review important aspects related to specific transportation decision making, including environmental, economic, and community factors. The PEL helps assure that all relevant data and information is obtained early in the process to assist with the eventual environmental review process, including the National Environmental Policy Act, or NEPA.

The Chamberlin Road PEL Study addresses a portion of the Chamberlin Road corridor in the Town of Mills and in an unincorporated area of Natrona County, Wyoming. The Town of Mills lies northwest of the City of Casper, Wyoming. Directly south of the Town of Mills is an unincorporated area of land bounded by the North Platte River to the west, south and east. Within this unincorporated peninsula are two residential areas – the Dempsey Acres/River Meadows area (southern portion) and the former Dempsey Land (northern portion). For this study, these areas will be referred to as North Dempsey and South Dempsey or the Dempsey area as a whole.

Chamberlin Road is the only access for the Dempsey area, which contains approximately 200 residential lots, a 50-lot manufactured home park, and approximately 400 residents. The connecting portion of Chamberlin Road runs adjacent to the North Platte River, and concerns have periodically been raised regarding the stability of the road and danger of erosion. Figure 1 illustrates this PEL study area and the singular access at Chamberlin Road.



Photograph 1 – Viewing to South along Chamberlin Road (West ROW where surface storm water flows to wash out area)



For clarification, Chamberlin Road has been spelled two ways – “Chamberlin” and “Chamberlain”. Natrona County GIS data has consistently spelled it “Chamberlin” and most of the plats on either side of the road have spelled it “Chamberlin”. The street sign at the intersection with Pendell Boulevard has it spelled “Chamberlain” as well as Google Earth. A surveyor’s map of the original Dempsey Subdivision prepared by H.L. Worthington and E.C. Lenhart in 1952 shows the spelling as “Chamberlin”. Therefore, the spelling throughout this report will be “Chamberlin”.

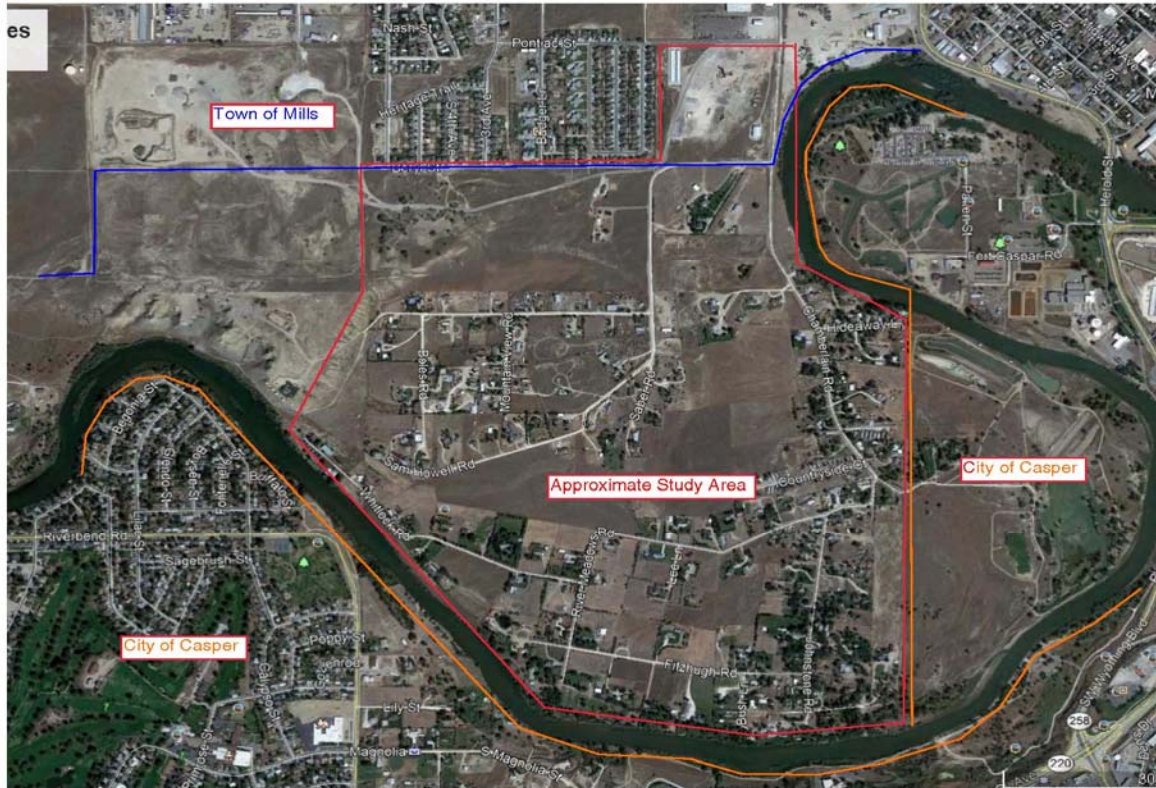


Figure 1 – Study Area

The Casper Area Metropolitan Planning Organization (MPO) and the Town of Mills intend to maintain Chamberlin Road as a viable corridor through Mills to the Dempsey area, as it is the only access for residents that live in the area. Therefore, the PEL study area for Chamberlin Road is from the intersection of Pontiac and Chamberlin Road to the boundary of the Town of Mills approximately 415 yards to the south. This study will also address options for secondary access points to the North and South Dempsey areas.

1.2 Previous Planning Studies

No previous PEL studies have been completed for this area. Previous planning studies include the following:

- Mills Main Street Corridor Study and Plan, ongoing 2020.



- Mills Comprehensive Plan, adopted 2017.
- River Front Property Programming and Feasibility Study, 2016.
- North Platte River Environmental Restoration Master Plan – Phase I, 2012.

1.3 Purpose

The purpose of this PEL study is to evaluate alternatives that will provide stability for the Chamberlin Road access to the Dempsey area south of the Town of Mills. Specifically, alternatives will address bank stabilization for the North Platte River, necessary drainage and erosion control measures, and potential traffic safety issues within the study area. In addition, the study will evaluate alternatives for secondary access to the Dempsey area that exist outside of the Chamberlin Road corridor.

Currently the only means of egress from South Dempsey is Chamberlin Road and the only mean of egress from North Dempsey is Boles Road, which exits onto Chamberlin Road at a point where the North Platte River flows closest to Chamberlin Road. The area where the river flows near Chamberlin Road has experienced previous wash-outs due to excessive storm water flows.

1.4 Need

Need 1: Protect and restore Chamberlin Road from the intersection of Pontiac and Chamberlin Road to the boundary of the Town of Mills (approximately 415 yards to the south), ensuring continued access in and out of the Dempsey area.

Need 2: Provide connectivity between the Dempsey area and the Town of Mills and/or the City of Casper to produce a roadway network that allows secondary access in the event of an emergency or situation in which Chamberlin Road becomes blocked or impassible. The potential washout of Chamberlin Road is only one type of emergency. Other types of emergencies that could hinder access and which should be considered by local government agencies and the area residents are fires, floods, and traffic accidents.

1.5 Goals

- Address traffic and access safety issues in the PEL study area.
- Provide a plan for drainage and erosion control protection, designed to meet transportation needs projected by the PEL study during a 25-year horizon.
- Evaluate environmental improvements needed on the west bank of the North Platte River.
- Identify potential environmental impacts of an asset protection project on historical sites, wetlands, endangered species, and wildlife habitats. Identify potential mitigation strategies for the same in preparation for a full NEPA report.
- Provide preliminary cost estimates associated with the plan for land surveying, design engineering, and construction engineering.



- Provide options for one or more secondary means of access to the Dempsey area to promote connectivity and produce emergency access if needed.
- Avoid and minimize utility and environmental impacts.
- Provide cost-effective alternatives for environmental and access remediation.
- Provide consideration of a “Do Nothing” option.

2.0 EXISTING CONDITIONS

2.1 Jurisdictional Boundaries

As previously noted, the Dempsey area is an unincorporated area of Natrona County. The Town of Mills is located to the north and the City of Casper is located to the south across the North Platte River and to the east where the Regional Water District water well field for municipal water development is located. In fact, the South Dempsey area is designated as a Safe Drinking Water Protection Area.

2.2 Traffic Volumes

Traffic is generally light within the Dempsey Acres area. Based on the relatively low population density, the type of land use being single-family residential, and many of the roads terminating with no other access, traffic on the roads within the development consists of mostly passenger vehicles, both automobile and pick-up trucks. The only other truck traffic is the occasional light delivery trucks and trash pick-up trucks. The Town of Mills plows snow to the end of Johnston Road. In addition, there is a school bus stop on River Meadows.

Traffic counts were collected on Chamberlin Road south of Pontiac Street by the MPO in 2019 and 2020. Chamberlin Road south of Pontiac Street had an Average Daily Traffic count of 1,394 in 2019 and 1,468 in 2020.



Photograph 2 – Viewing south along Chamberlin (Showing Mobile Concrete yards on both sides)

ECS Engineers further estimated traffic data within North Dempsey and South Dempsey using the 2020 MPO traffic counts. Data was extrapolated near intersections within the two areas by assuming a proportional relationship between the quantity of residences in each area to the traffic counts. In general, South Dempsey contains 75% of the residences and therefore, will account for 75% of the traffic. Current traffic estimates for specific locations, along with the secondary access options (in red), are presented on Figure 2 below. The secondary traffic alternatives are discussed in detail in Section 3.4.

Estimated Average Daily Traffic Counts

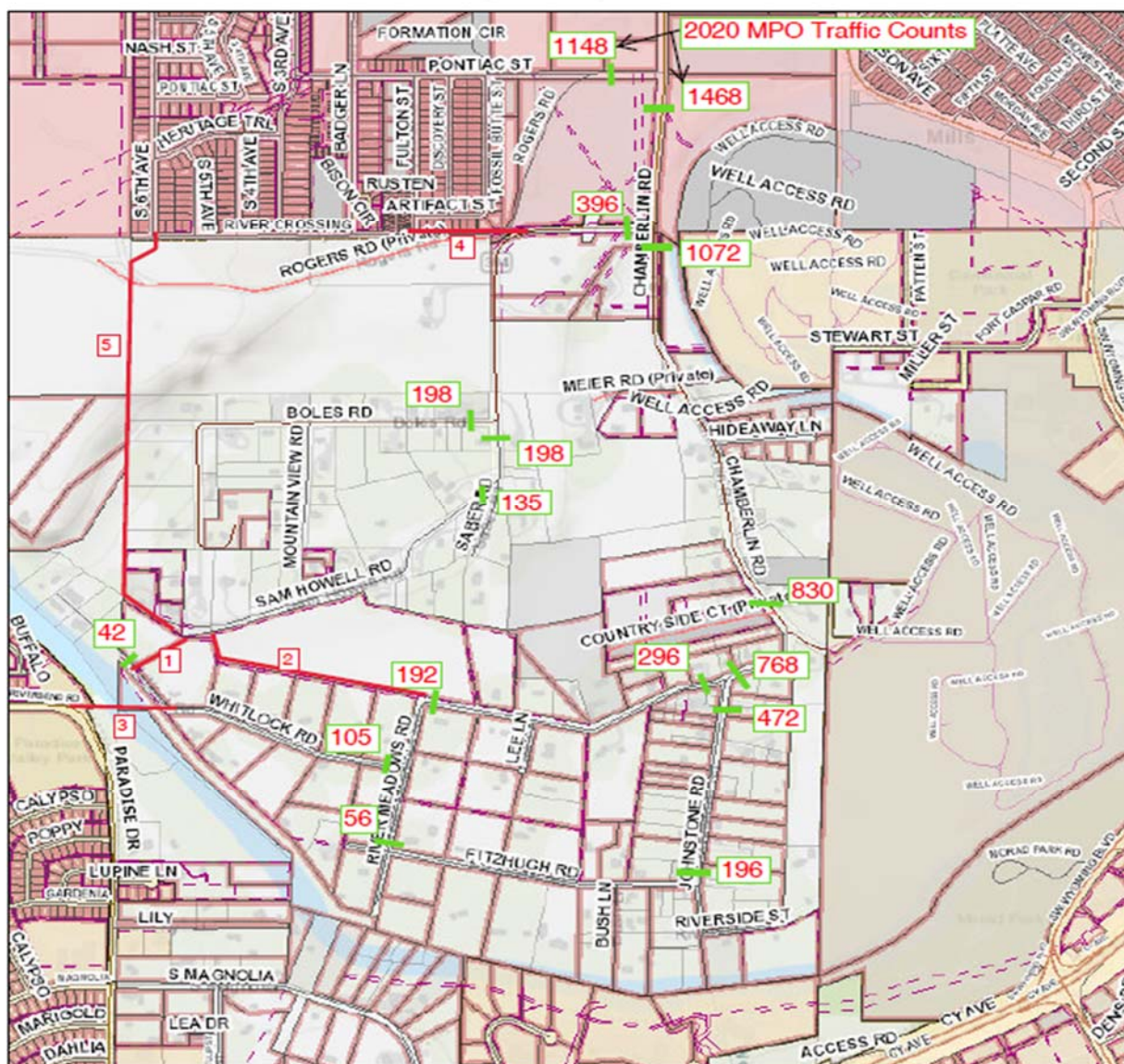


Figure 2 – Estimated Traffic



Upon assessing the traffic counts and reviewing the study area's primary land uses, the PEL study team has determined that the traffic volumes on roads within North Dempsey and South Dempsey will not significantly increase due to the construction of new access roads. The one exception to this conclusion is Option 3, which includes a new bridge that could generate an increase in traffic volumes. It is also estimated that a small percentage of residents within the Dempsey Acres area will utilize any new access road constructed. Options 1, 2, and 5 either begin or terminate near the ends of dead-end roads. Residents that live near where new roads are constructed may utilize them. However, most traffic studies indicate that drivers generally will take the quickest route. New access roads that take drivers into a residential neighborhood of Mills will, most likely, not quicken a route. Therefore, it can be assumed that most residents will continue to utilize the routes they have typically used.

In summary, traffic volumes are relatively low in all areas of Dempsey Acres. No significant land development is expected in the near or distant future. Assuming that the area's population growth will remain steady or low due to smaller household sizes, traffic volumes will correspondingly remain low.

2.3 Land Use

The Dempsey area is a rural residential area. Based on an estimated population of 400 and the total acreage of the PEL study area (approximately 350 acres), the population density is about 1.2 persons per acre. A few of the residents operate small businesses from their homes. Surrounding areas are developed with the City of Casper water well field to the east and a vacant field to the north. Across the river to the south is a single-family residential area. Mobile Concrete is the largest commercial operator in the vicinity with facilities on both sides of Chamberlin Road. Mobile Concrete also operates a pit approximately 1.5 miles west of Chamberlin Road. Aggregate is hauled from their pit located west of Chamberlin Road via a private haul road.

The South Dempsey area residences have septic systems for sanitary sewer disposal and use water wells for water supply. The North Dempsey area residences have septic systems for sanitary sewer disposal and have the option for either municipal water supplied through the Pleasant View Water District or water wells. The roads through Dempsey are gravel surfaced, and their maintenance is the responsibility of the landowners.

2.4 Historic and Archeological Resources

A potential archeological site is located along Boles Road on the north and south side of Boles Road. The polygon area is designated on Natrona County GIS maps and is approximately 0.7 acres in size. From the intersection of Chamberlin Road and Boles Road approximately 400 ft to the west is the designated Historical Landmark Commission area. Based on information obtained from Fort Caspar (which is located directly across the river), this Historical Landmark is a potential grave site. While within the PEL study area, this specific area will not be impacted by any of the alternatives.

Other than this Historical Landmark area, no known historic or archeological resources have been documented within the PEL study area. Correspondence received from the State of Wyoming Historic



Preservation Office dated January 27, 2021 stated that the Office had no objection to projects within the PEL study area provided that the Federal Highway Administration (FHWA) follows procedures outlined in Section 106 of the National Historic Preservation Act and Advisory Council regulations 36 CFR Part 800. These regulations pertain to the survey, evaluation, and protection of significant historic and archeological sites prior to any disturbances as a result of a FHWA-funded project.

2.5 Floodplains, Wetlands, and other Waters of the US within the Study Area

Portions of the Dempsey area are within the Federal Emergency Management Agency (FEMA) regulated 100-year floodplain. During the NEPA phase, coordination with appropriate agencies will be required to ensure that projects within the floodplain comply with all relevant regulations. Based on the nature of the scope of this study, it is not expected that the floodplain or wetlands will impact final design.

2.6 Protected Species

The U.S. Fish and Wildlife Service lists 6 threatened and endangered species and 24 migratory birds potentially existing in Natrona County, Wyoming. Habitat surveys will be required to determine potential impacts to these species. Surveys for nesting raptors may be required within 0.5 mile from any project area between February 1 and July 31, and surveys within 0.5 mile may be required for bald eagle roost sites between December 1 and March 1.

2.7 Hazardous Materials

No known hazardous material sites are located in the PEL study area or in the vicinity of Mills.

3.0 ALTERNATIVES DEVELOPMENT AND EVALUATION

3.1 Storm Water and Slope Remediation Alternatives

An area on the east side of Chamberlin Road has experienced three documented washouts, one in 1973, another in 2005, and one more in 2009. The cause appears to be from storm water surface flows from the north and east. Surface storm water flows to this low spot and flows over the crest of the slope causing erosion of the sandy soil which makes up the slope down to the river. The challenge in preventing washouts in the same vicinity is to intercept the surface water flows and direct them to safely discharge to the river in a controlled method. The existing storm pipe may not necessarily be undersized. However, there may not be enough inlets upgradient to allow water to enter the pipes. The nature of the open areas in this part of Mills makes it difficult to provide inlets in areas where they may be needed and makes sheet flows across open lots difficult to manage.

The area along Chamberlin Road has been temporarily repaired by placing concrete rubble within the area that has washed out three previous times, and in an effort to restore the general slope of the riverbank. The concrete rubble has effectively stabilized the slope over the past 10 to 11 years. However, the repair was intended as a temporary remediation and is unsightly.



Figure 3 below, shows the areas of the storm water and slope remediation alternatives along with the area that has previously washed out.



Figure 3 – Storm Water and Slope Remediation Areas

In May 2012, Stantec published a report titled “North Platte River Environmental Restoration Master Plan – Phase I” in which they studied several river reaches and made recommendation alternatives to restore the river channel and riverbank. Another Stantec study in 2017 included alternative options for restoration of the Izaak Walton river reach, which includes Chamberlin Road. Option 1 is called “Hollistic Natural Channel Design” and includes installing woody toes and bench cuts (an estimated cost of \$3,655,000). Option 2 is “Bank Treatment and Enhancement” and includes removing Russian Olive trees,



installing woody toes, and floodplain bench cuts (\$2,275,000). Option 3 is labeled “Retaining Wall with Bank Treatments” and includes construction of a retaining wall along 900 lineal feet of Mobile Concrete river front property, installing woody toes, and floodplain bench cuts (\$11,035,000). Option 4 is called “Chamberlin Road Relocation with Bank Treatments” and includes re-aligning Chamberlin Road to move it further to the west away from the river in order to create a buffer in case of a slope failure. The riverbank slope would be cut to a flatter (3H:1V) slope, woody toes would be installed, and floodplain bench cuts would be made (\$3,175,000 not including easement acquisition costs).

Any work, design and construction, proposed as a result of the Chamberlin Road PEL study should be coordinated with the North Platte River Restoration project officials to potentially combine work in this project area.

3.2 Storm Water Alternatives Considered

Based on research and discussions with the Town of Mills representatives, a comprehensive drainage study has not been performed for the portion of Mills that generally drains toward the river in the vicinity of Pendell Boulevard and Chamberlin Road. A storm sewer design performed in 1986 was constructed along Pendell to the Chamberlin Road and along Chamberlin Road to the river. However, the design did not include information concerning the drainage basin area. It appears that the design of the storm sewer included the piping accepting storm water from minor events (10 to 25 year storms) with the remainder being overland flow.

To arrive at a detailed, definitive remediation of the storm water system, a comprehensive drainage study should be considered as part of the design phase. The approximate drainage basin area is in excess of 200 acres for this portion of Mills and this information has been used in rough sizing for cost estimation purposes.

Detention Pond Alternative

A detention pond located in the southwest corner of Mobile Concrete’s east yard could be designed and constructed to intercept surface water and discharge it to the river in a slower, more controlled manner. A discharge pipe could be routed from the pond to the existing outfall approximately 300 ft south of the washout area. Routing water to an existing outfall not to exceed the permitted outfall rate would eliminate the requirement for a US Army Corp of Engineer’s permit and a FEMA permit. This option would also improve storm water quality by providing an area to drop sediment at the detention pond.

Cost

The cost to construct a detention pond alternative will be approximately \$110,000. The table below summarizes the cost estimates.



Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$7,700
Site Preparation	\$6.00/SY	1,585 SY	\$9,510
Earthwork	\$30.00/CY	1,250 CY	\$37,500
24" RCP Storm Pipe	\$100.00/LF	300 LF	\$30,000
Subtotal			\$84,710
Engineering Design	10%		\$8,470
Construction Management	10%		\$8,470
Construction Total			\$101,650
Easement Acquisition	\$25,000/Acre	0.33 Acres	\$8,250
Total			\$109,900

Additional Inlets on East Side of Chamberlin Road

There are four storm water inlets on the west side of Chamberlin Road and only two storm water inlets on the east side of Chamberlin Road. Additional inlets could be installed on the east side of the road and into the existing 60-inch Reinforced Concrete Pipe (RCP) that appears to have unused capacity. This would require excavation of trenches across Chamberlin Road and penetrating the RCP to accept the lateral pipes. This alternative would only be applicable if a future drainage study determined that the existing storm sewer piping has sufficient additional capacity during minor storm events.

Cost

The cost to install additional storm water inlets will be approximately \$53,000. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$4,000
Install Inlets	\$10,000/Inlet	4	\$40,000
Subtotal			\$44,000
Engineering Design	10%		\$4,400
Construction Management	10%		\$4,400
Construction Total			\$52,800

Perform Grading along East Side of Chamberlin Road

Flow from Mobile Concrete's yard on the east side of Chamberlin Road tends to flow along the berm at the crest of the slope down to the river. This flow then exits and flows down the riverbank slope in the direct vicinity of the washout. In addition, the existing ditch is not well defined. Grading could be performed to direct surface flows from Mobile Concrete's yard to the west towards the ditch and the ditch could be better defined to direct flows beyond the washout area further to the south toward the river where the elevation difference is much less than near the washout area. It would be recommended



to re-grade the ditch from the north limits of Mobile Concrete's yard to at least 200 ft south of the washout area, which is approximately 1,700 lineal feet.

Cost

The cost to perform grading along Chamberlin Road to establish a more defined drainage ditch will be approximately \$45,000. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$3,400
Earthwork	\$20.00/LF	1,700 LF	\$34,000
Subtotal			\$37,400
Engineering Design	10%		\$3,740
Construction Management	10%		\$3,740
Construction Total			\$44,880

Install Check Dams on East Side of Chamberlin Road

The soil in this part of Mills consists of silty sand and poorly graded sand with silt (alluvial deposits) which are both prone to erosion due to high velocity surface water flows. Permanent check dams constructed within the drainage ditch would slow the flow of water to help reduce the potential of erosion. Coarse, 3-inch to 5-inch sized rock could be placed across the ditch profile to serve as check dams upon completion of re-grading the drainage ditch. As an alternative, rock filled gabions could also be used as effective check dams.

Cost

The cost to construct five check dams will be approximately \$66,000. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$5,000
Check Dam Construction	\$10,000/Check Dam	5	\$50,000
Subtotal			\$55,000
Engineering Design	10%		\$5,500
Construction Management	10%		\$5,500
Construction Total			\$66,000

Combination of Alternatives

A combination of the four alternatives described above could be employed to improve the storm water system in this area. Based on the recent growth in the Town of Mills and its projected future growth, a redundancy of measures to protect Chamberlin Road should be considered. The table below summarizes cost associated with performing all of the alternatives discussed above.



Item	Total
Detention Pond	\$110,000
Additional Inlets	\$53,000
Re-Grade Ditch	\$45,000
Check Dams	\$66,000
Total	\$274,000

No Action Alternative

Although a “No Action Alternative” has been considered, this is not a realistic option with respect to addressing the storm water issues. If the storm water continues to flow and discharge to the river near the existing area that has experienced washouts, an area adjacent to the existing disturbed area will experience significant erosion and statistically another washout will occur that would adversely affect Chamberlin Road.

3.3 Slope Remediation Alternatives Considered

As discussed previously, the slope where the North Platte River flows closest to Chamberlin Road has washed out from overland surface water flows at least three times in the past (1973, 2005, and 2009). The slope down to the river is approximately 43 vertical ft and consists of sandy soil. A geotechnical boring was drilled by ECS Engineers and the subsurface profile consisted of medium dense, poorly graded sand to a depth of 30 ft.

The temporary repair using concrete rubble has effectively stabilized the slope in the immediate failure area. However, a minor amount of soil loss has occurred adjacent to the concrete rubble on both sides. Storm water that reaches this point has the potential to flow around the concrete rubble area and erode the soil on either side. A large storm event could cause another washout adjacent to the existing repaired area.

Addressing the storm water issues and designing a system to route water away from this localized point will aid significantly in stabilizing the washout area. Again, the repair performed after the 2009 storm event was intended to be temporary and not a permanent solution.

There are several methods that could be evaluated to remediate the failure area. The failure area could be rehabilitated by removing a portion of the concrete rubble, constructing a small berm at the toe of the slope with either soil or rock filled gabions, placing a layer of clean 1-inch free draining gravel to cover the remaining concrete rubble, and installing a permanent erosion control product. Geocell would be an example of one product that would provide long-term erosion protection. The cells could be filled with topsoil and re-seeded and re-vegetated. Once vegetated, the Geocell would not be visible. The repair area would be approximately 200 ft in width along the river and Chamberlin Road and approximately 120 ft in length down the slope perpendicular to the river.



Cost

The cost to construct a slope remediation alternative will be approximately \$347,000. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$26,290
Rubble and Topsoil Removal	\$10.00/SY	2,700 SY	\$27,000
Earthwork	\$30.00/CY	500 CY	\$15,000
Clean 1" Gravel	\$35.00/CY	5,000 CY	\$175,000
GeoCell	\$4.00/SY	2,700 SY	\$10,800
Import and Place Topsoil	\$12.00/SY	2,700 SY	\$32,400
Seeding	\$1.00/SY	2,700 SY	\$2,700
Subtotal			\$289,190
Engineering Design	10%		\$28,900
Construction Management	10%		\$28,900
Construction Total			\$346,990

No Action Alternative

If the storm water issues are remediated, a “do nothing” option for repair of the slope is a consideration. The concrete rubble placed after the last damaging storm event appears to have stabilized the slope. Some soil erosion has been observed on both ends of the repair area and in between some of the rubble pieces. However, if measures are taken to route storm water away from the area, the soil erosion should decrease. A long-term repair of this failure area will still be required at some point in time.



Photograph 3 – Viewing to north along west leg of Boles Road (shows the slope that Alternative 5 would traverse)



3.4 Secondary Traffic Access Alternatives Development

The alternatives were developed by a team consisting of the Casper Metropolitan Planning Organization (MPO), the City of Mills, and ECS Engineers.

3.5 Secondary Access Alternatives Considered

The PEL process has identified several alternatives. Alternative Nos. 1 and 2 include connection options between North Dempsey and South Dempsey. Alternative Nos. 3, 4, and 5 would involve connection options between the Dempsey area as a whole to either Casper or Mills. To achieve a goal of secondary connection for both portions of Dempsey, some combination of the alternatives will be required. Based on the expected low traffic volumes, we assume that new road alternatives would consist of gravel surfaced roads. Gravel surfaced roads can be treated with various methods, such as magnesium chloride or using a gravel road base with a low plasticity, to reduce the potential for dust generation and water erosion. Figure 4 presents the locations of each alternative.

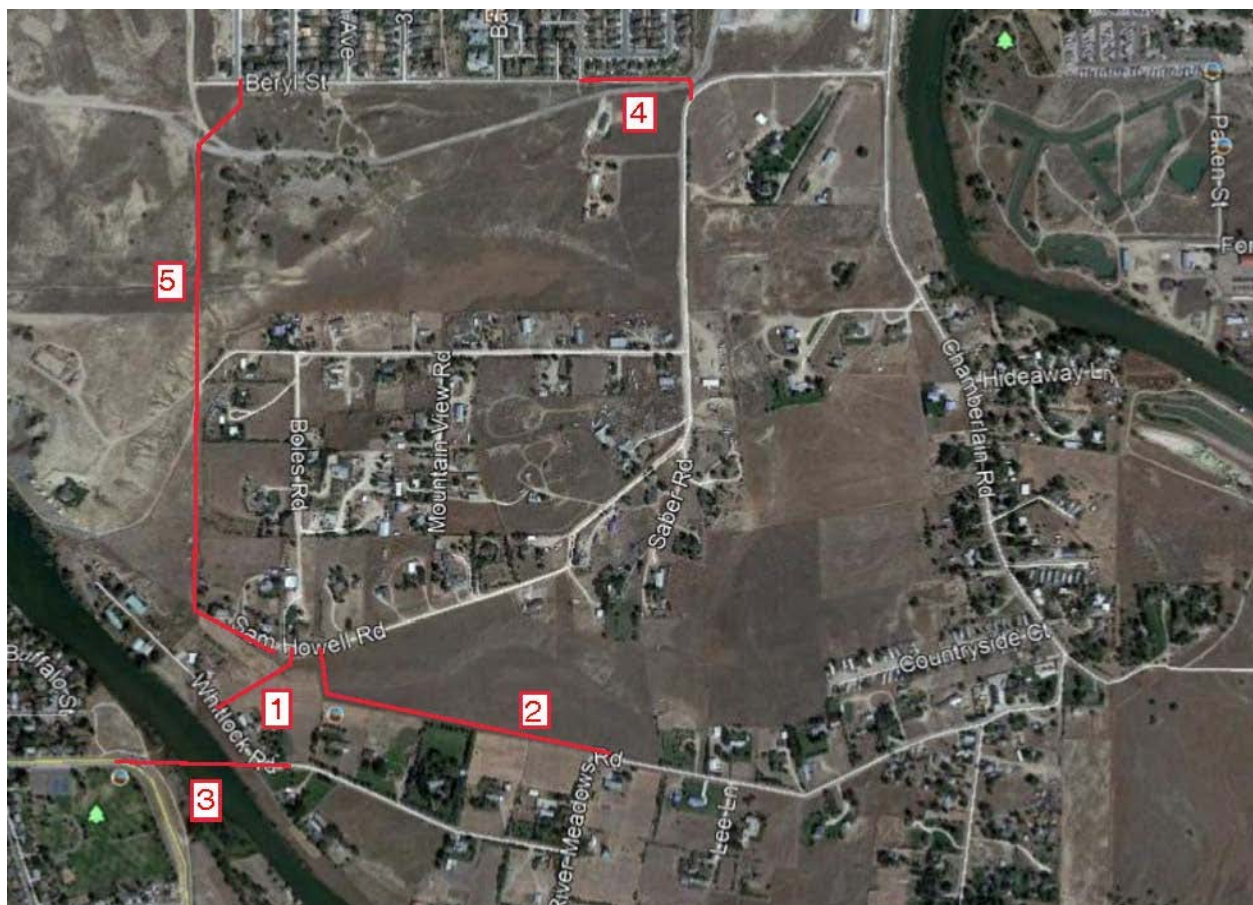


Figure 4 – Connection Alternatives



3.6 Evaluation Results

North Dempsey to South Dempsey Connection

Alternative 1 – Whitlock Road to Sam Howell Road

Alternative 1 is approximately 525 ft in length and would include following an existing water line easement. Within the last 10 years, a 16-inch water main was extended from Paradise Valley across the river and through property at 5192 Whitlock Road. The water line turns to the northwest near the Sam Howell Road right-of-way. This would provide a direct connection between Whitlock Road and Sam Howell Road. The water line easement is 8 to 15 ft in width. Additional easement acquisition would be required for a wider County road template.

Grade and Geometrics

The topography slopes slightly upward to the north toward Sam Howell Road. Site grading and earthwork for a 50 ft wide road template would be minimal.

Right-of-Way

Right-of-way easement acquisition would be required from two or three landowners. An easement width of 50 ft was assumed for the purposes of this report and the cost estimates.

Traffic

This alternative is located toward the end of Whitlock Road. Traffic volumes would likely consist of only local residents on an occasional basis.

Utilities

This alignment follows an existing water main easement. Based on the relatively flat topography, construction of a new road should not interfere with the existing water line cover depth.

Environmental

No significant or long lasting environmental concerns were identified.

Cost

The cost to construct a gravel surfaced 25 ft wide road within a 50 ft wide easement will be approximately \$125,000. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$8,250
Topsoil Removal	\$7.00/SY	3,000 SY	\$21,000
Earthwork/Grading/Ditches	\$30.00/CY	750 CY	\$22,500
Crushed Base	\$15.00/SY	1,500 SY	\$22,500
Dust Treatment	\$4.00/SY	1,500 SY	\$6,000



Replace Topsoil / Seeding	\$7.00/SY	1,500 SY	\$10,500
Subtotal			\$90,750
Engineering Design	10%		\$9,075
Construction Management	10%		\$9,075
Construction Total			\$108,900
Easement Acquisition	\$25,000/Acre	0.62 Acres	\$15,500
Total			\$124,400

Alternative 2 – River Meadows Road to Sam Howell Road

Alternative 2 is approximately 1,875 ft in length. From the intersection of River Meadows and Johnstone Road, the River Meadows Road alignment is generally to the west for approximately 0.4 mile and then turns south. At the point where River Meadows Road turns to the south, a new road would be extended to the west (behind residences on the north side of Whitlock Road) and then north to connect with Sam Howell Road. At the point where River Meadows Road turns to the south a new road would jog slightly to the north and follow property lines approximately 1,490 ft to the west and approximately 270 ft to the north. The alignment for this option could potentially be located on undeveloped land with one landowner.

Grade and Geometrics

The topography from River Meadows west for 1600 ft is relatively flat. The 275 ft long leg that extends to Sam Howell Road slopes upward to the north toward Sam Howell Road. Site grading and earthwork for a 50 ft wide road template would be minimal.

Right-of-Way

Right-of-way easement acquisition may be required from two landowners. An easement width of 50 ft was assumed for the purposes of this report and the cost estimates.

Traffic

This alternative starts at the end of the east to west leg of River Meadows Road which is located near the center portion of South Dempsey. The start of this alternative would be located in an area where more local residents could potentially use the new road. However, traffic volumes would likely consist of only local residents on an occasional basis.

Utilities

This alternative would have no buried utility conflicts. An overhead power line is located along the east to west property line.

Environmental

No significant or long lasting environmental concerns were identified.



Cost

The cost to construct a gravel surfaced 25 ft wide road within a 50 ft wide easement will be approximately \$392,000. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$25,500
Topsoil Removal	\$7.00/SY	10,500 SY	\$73,500
Earthwork/Grading/Ditches	\$30.00/CY	1,500 CY	\$45,000
Crushed Base	\$15.00/SY	5,250 SY	\$78,750
Dust Treatment	\$4.00/SY	5,250 SY	\$21,000
Replace Topsoil / Seeding	\$7.00/SY	5,250 SY	\$36,750
Subtotal			\$280,500
Engineering Design	10%		\$28,050
Construction Management	10%		\$28,050
Construction Total			\$336,600
Easement Acquisition	\$25,000/Acre	2.2 Acres	\$55,000
Total			\$391,600

Connection from Dempsey to Either Casper or Mills

Alternative 3 – Bridge across North Platte River

Alternative 3 consists of a bridge across the North Platte River connecting Whitlock Road to Riverbend Road in Paradise Valley. The length of this option is approximately 835 ft. Riverbend Road and Whitlock Road are nearly in direct alignment with one another. It appears existing public easements are located on both sides of the river at the site of the specific alignment. Disadvantages of this alternative include cost of a 350 ft long bridge and an increase in traffic through South Dempsey. The bridge and approach design would need to consider the pedestrian/bike path along Riverbend and Paradise Drive on the west side of the river.

Grade and Geometrics

The grade from Whitlock Road to Riverbend Road is relatively flat. Earthwork for the bridge approaches would be minimal.

Right-of-Way

This option could likely be constructed with no private landowner acquisition. The tie-in to Whitlock Road is a common area or an existing road right-of-way. The Riverbend Road tie-in would conflict with an existing pedestrian/ bike pathway. No private land is located between the riverbank and Riverbend Road.



Traffic

Constructing a bridge across the North Platte River and connecting Paradise Valley with Dempsey Acres would result in increased traffic on Whitlock Road. The volume increase is difficult to estimate. Residents that live in the Paradise Valley part of Casper who work in Mills, could potentially utilize this alternative route on a somewhat regular basis. Riverbend Road would also see an increase in traffic. However, Riverbend Road is a relatively busy collector street and is adequately designed for a slight increase in traffic.

Utilities

No buried utilities are located on the east side of the river. Water lines and a sanitary sewer line are located on the west side of the river and could pose conflicts with the bridge abutment and/or bridge approach.

Environmental

Environmental concerns would be typical for any bridge design and construction. A wetland study would be required, and portions of the alignment would likely traverse through the 100-year floodplain. In addition, aquatic and wildlife studies would be required. Temporary increases in dust and noise would also occur during construction.

Cost

The cost to construct a bridge alternative include a 360 ft span bridge and approaches on both sides. The approach on the west side to tie-in to Riverbend Road would need to be paved. Because it will connect to the Platte River Parkway Path System, the bridge design will likely need to include a pathway for bikes and pedestrians (estimated width of 36 ft). The estimated cost for the bridge is \$4 million and the estimated cost for the approaches is \$500,000 for a total estimate of \$4.5 million including engineering fees. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$337,300
Topsoil Removal	\$7.00/SY	2,030 SY	\$14,210
Earthwork/Grading/Ditches	\$30.00/CY	900 CY	\$27,000
Crushed Base	\$15.00/SY	1,020 SY	\$15,300
Plant Mix Pavement	\$24.00/SY	1,020 SY	\$24,480
Structure	\$250/SF	13,140 SF	\$3,285,000
Replace Topsoil / Seeding	\$7.00/SY	1,020 SY	\$7,140
Subtotal			\$3,710,430
Engineering Design	10%		\$371,100
Construction Management	10%		\$371,100
Construction Total			\$4,452,630



Alternative 4 – Boles Road to River Crossing

Alternative 4 is approximately 860 ft in length. River Crossing is only paved up to Fulton Street to the east. River Crossing could be extended to the east to connect with Boles Road. River Crossing and Boles Road, at this location, are both in the east to west alignment. Boles Road is about 15 ft further north than River Crossing. Mobile Concrete operates a sand and gravel pit west of 6th Avenue and south of Poison Spider Road approximately 1.5 miles west of Chamberlin Road. A Mobile Concrete haul road (Rogers Road, which is private) is located northwest of Boles Road where it turns to the south. Extending River Crossing through to Boles Road would create an intersection with this haul road. Traffic conflicts with passenger vehicles and large trucks and equipment would need to be addressed with this alternative.

Grade and Geometrics

The topography of the area surrounding Boles Road, Rogers Road, and River Crossing is relatively flat. Earthwork would be minimal. The east to west leg of Boles Road is almost in direct alignment with River Crossing in Mills.

Right-of-Way

River Crossing ends at Fulton Street on the east end. However, the Town of Mills owns the right-of-way a distance of approximately 540 ft to the east. A relatively short corridor between the end of the Town of Mills River Crossing right-of-way and Boles Road right-of way would need to be acquired from Mobile Concrete. This short segment is approximately 150 ft in length. An easement width of 50 ft was assumed for the purposes of this report and the cost estimates.

Traffic

This alternative would present some traffic conflicts. Mobile Concrete uses Rogers Road as a haul road between their pit area approximately 1.5 miles to the west and their yard areas on either side of Chamberlin Road. Traffic conflicts between passenger cars and heavy truck traffic will need to be evaluated with a safe solution. In addition, this alternative is located where Boles Road turns 90 degrees to the south. This 90 degree curve on Boles Road should remain as the main alignment, as the majority of traffic will continue to use Boles Road as it is currently. Traffic traveling north on Boles road that wishes to access River Crossing will need to yield to traffic traveling west and south on Boles Road, which could be difficult to design.

Utilities

The only buried utility along this alignment for this option is an 8 inch sanitary sewer line.

Environmental

No significant or long lasting environmental concerns were identified.

Cost

The cost to construct a gravel surfaced street extension would be approximately \$192,000. The table below summarizes the cost estimates.



Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$12,600
Topsoil Removal	\$7.00/SY	4,800 SY	\$33,600
Earthwork/Grading/Ditches	\$30.00/CY	1,000 CY	\$30,000
Crushed Base	\$15.00/SY	2,400 SY	\$36,000
Dust Treatment	\$4.00/SY	2,400 SY	\$9,600
Replace Topsoil / Seeding	\$7.00/SY	2,400 SY	\$16,800
Subtotal			\$138,600
Engineering Design	10%		\$13,860
Construction Management	10%		\$13,860
Construction Total			\$166,320
Easement Acquisition	\$25,000/Acre	1 Acres	\$25,000
Total			\$191,320

Alternative 5 – Sam Howell Road to River Crossing

Alternative 5 is approximately 3,700 ft in length and would consist of extending Sam Howell Road along the existing water line easement behind, or on the west side of, residences on Boles Road (4594, 4598, 4600, and 4700 Boles Road). At the northwest corner of the property at 4594 Boles Road, the water line easement turns to the west. The proposed access road would continue to the north across Rogers land and connect with the intersection of River Crossing and South 6th Avenue. This alternative would also intersect with the Mobile Concrete haul road (Rogers Road - private). Traffic conflicts with passenger vehicles and large trucks and equipment would need to be addressed with this alternative. This alternative may have an advantage of presenting future alternatives to connect the eastern portion of Mills to Robertson Road or Poison Spider Road.

Grade and Geometrics

The topography of this alignment slopes slightly to moderately upward to the north. There is an approximate elevation difference of 50 ft over a horizontal distance of 475 ft behind the properties of 4598 and 4594 Boles Road. This is a natural grade of approximately 10.5%. Earthwork will require cuts and fills to reduce the grade of a new road to between 5 and 7%.

Right-of-Way

Alternative 5 is the longest option and therefore, has the most landowners that would be involved in the access easement process. The alignment traverses through nine to ten various landowner properties. An easement width of 50 ft was assumed for the purposes of this report and the cost estimates.

Traffic

This alternative starts at the end of Sam Howell Road and follows an existing water line easement to a point near the northeast property corner of 4594 Boles Road and then continues across undeveloped land owned by the Rogers. This option crosses the Mobile Concrete haul road (Rogers Road - Private). Traffic volumes would likely consist of only local residents on an occasional basis.



Utilities

This alternative follows an existing water line easement for approximately 2,200 ft. Design and construction would need to ensure that earthwork cuts do not reduce the required cover depth for water lines.

Environmental

No significant or long lasting environmental concerns were identified.

Cost

The cost to construct a gravel surfaced road would be approximately \$790,000. The table below summarizes the cost estimates.

Item	Unit Cost	Estimated Quantity	Total
Mobilization	10%	1	\$51,700
Topsoil Removal	\$7.00/SY	20,600 SY	\$144,200
Earthwork/Grading/Ditches	\$30.00/CY	3,500 CY	\$105,000
Crushed Base	\$15.00/SY	10,300 SY	\$154,500
Dust Treatment	\$4.00/SY	10,300 SY	\$41,200
Replace Topsoil / Seeding	7.00/SY	10,300 SY	\$72,100
Subtotal			\$568,700
Engineering Design	10%		\$56,870
Construction Management	10%		\$56,870
Construction Total			\$682,440
Easement Acquisition	\$25,000/Acre	4.3 Acres	\$107,500
Total			\$789,940

Alternative 6 – No Action Alternative

Alternative 6 consists of not constructing any of the proposed secondary access roads. If the storm water issues are resolved along Chamberlin Road, the risks of another slope failure are reduced significantly.

4.0 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

4.1 Public Involvement

The Town of Mills, the MPO, and ECS Engineers held a public meeting on January 11, 2021 to inform and involve the residents of Dempsey and Mills of the PEL feasibility level study. Storm water runoff and slope stabilization issues were discussed along with the possibility of providing secondary connections between South Dempsey and North Dempsey and between Dempsey and either the Town of Mills or City of Casper. A flyer was prepared that outlined the meeting details and was sent out in the Mills water billing and mailed to each resident of Dempsey.



Residents had the opportunity to attend the meeting in person or via remote access. Residents were also encouraged to contact the MPO or ECS Engineers by phone or email to express their opinions and ideas apart from the public meeting. The open house public meeting format provided individuals with opportunities to express their concerns and have questions answered. Two sessions were held. One at 5:30 pm and a second at 6:30 pm. Fifty-two residents signed the Sign-Up Sheet, although a few attendees did not sign in. Therefore, it is estimated that 60 people attended the combined sessions, or approximately 30 at each meeting.

After initially voicing concerns about possibly being annexed to the Town of Mills and learning that was not part of the PEL scope, attendees then focused on the study and the issues pertaining to storm water, slope, and secondary access.

A summary of the comments and questions are as follows:

E-mail: I support whatever effort you want to do. A bridge to PV would be great, I could use it to ride my bike to the trail without having to cross Wy Blvd. And it takes a long time to get to PV from Dempsey, so I would love a bridge for that reason. One idea is that you could follow the water line easement, of which I have 800 feet, to connect Whitlock Rd to River Crossing. I am probably OK with that. You could connect Boles to Boatright access to Pontiac. I am OK with that. I am OK with either Mills or Casper annexing us. I am OK with someone paving Boles Rd. I will try to follow along to see what is new.

E-mail: I live at the end of Johnstone Rd down in Dempsey Acres. I got your flyer and have some hope that this may be a way to improve our neighborhood. We have lived down here for about 12 years and love the fact that at the end of our street it is quiet without a lot of traffic. Also love the fact that there isn't a whole bunch of street lights and such. Really feels like being out in the country without being out of town. That being said I would be lying if it said it wasn't a pain to always drive up to Pendell to get into Dempsey and then all the way down to the end of Johnstone, but the only way to make this better would be to make direct access to Yellowstone or to PV area and then the traffic would get worse down here. In the 12 years we have never been blocked in or out with the one access. The one thing that I am hopeful for is that we could talk about UTILITIES and ROAD MAINTENANCE! Sometimes we feel like the forgotten step kids in the city, while we enjoy the "County Status" we have streets that are in dis-repair and trying to get an entity to take responsibility and fix them can be like pulling teeth. Casper says it's Mills' problem, Mills says its County's problem. We do enjoy and thank Mills for plowing all the way to the end of Johnstone in the winter but if we could get the roads repaired and even replaced or installed that would be amazing. This brings me to UTILITIES. Now this seems to be a hot button topic down here. I know that utilities come with taxes and more bills but this whole area in the "bottom" of Dempsey is on wells and septic systems. Even the city water supply draws its water from down here. When repairing our septic system a few years ago we were told that there is limited areas for septic systems in the "Lower Dempsey Acres" area not to mention that water table is high and the city is drafting water from this area. We were told 12 years ago that there was a petition to get utilities down here but the residents were adamantly against it and it got shelved. I think the demographic has changed and many of us would at the minimum want sewer. We know that this would come with water as well which a lot of us would accept but



would opt to keep our wells. I talked to a county official that said that he had seen a study that said that all the septic systems are a hazard to the water treatment plant that is down here also so this would be mutually beneficial to the city as well.

Facebook: A secondary access in and out of this area would be our preference. I do not have a preference between those two options. We live at the corner of River Meadows and Johnstone Rd. This creates a lot of traffic past our house because it is the only access available. So it would be nice if everybody had 2 options in and out.

Facebook: I would be against a road crossing into PV. That would be too much traffic on our already narrow streets. The county doesn't plow well enough in the winter either, or maintain the roads at all....striping, pot hole fills...

Facebook: I don't like the idea of connecting to PV. That would increase traffic considerably. I like the idea of connecting into the River Crossing development. We seem to have a lot of traffic coming through the S curve and accelerating straight up and out Chamberlin at all hours.

Facebook: Adding another road would end up just creating more unnecessary and unwanted traffic, which will create far more issues than it would solve. My family has lived down there for over 30 years and the only issue with getting in and out is snow and waiting on plows. Focus on fixing chamberlain and leave access how it is. If you're going to do anything else, fix the dirt road on Fitzhugh that is a constant sink hole.

Phone Call: (paraphrasing) caller noted, there has been one instance when the road was impassable by drifting snow and residents were unable to travel in and out of area.

Phone Call: (paraphrasing) caller noted, they thought a route up to River Crossing would be best option.

Phone Call: (paraphrasing) caller stated that he and his elderly parents live in lower Dempsey and both are generally against providing secondary access to the area, especially a bridge.

Public Meeting: There were many questions and comments at the two sessions. The general consensus taken from the comments is that the attendees prefer fixing storm water issues and stabilizing Chamberlin Road to avoid building new roads. Many of the attendees are longtime residents and have experienced no issues with access.

For those interested residents that were unable to attend the public meeting, the Casper MPO posted information on their website for public comment. In addition, meeting documents were made available to residents from the Town of Mills and ECS Engineers.



4.2 Resource Agency Coordination

The MPO provided resource agencies notification of the PEL and solicited input via a letter dated January 15, 2021. The MPO letter requested responses from each agency addressing any environmental or historical issues or concerns in the vicinity of the study area. An example of the letter is provided in Appendix A. Letters were sent to the following:

- US Army Corp of Engineers – Wyoming Regulatory Office
- Bureau of Land Management – Casper Field Office
- Wyoming DEQ
- US EPA, Region 8 – NEPA Reviewer
- Natrona County Planning Department
- Natrona County Conservation District
- Natural Resource Conservation Service
- Wyoming State Historic Preservation Office
- US Fish and Wildlife Service – Wyoming Field Office
- Wyoming Game and Fish Department Headquarters
- Wyoming Game and Fish – Regional Wildlife Supervisor
- Wyoming Game and Fish – Regional Fisheries Supervisor
- Wyoming Office of State Lands
- Wyoming Department of Transportation

Responses from the agencies are included in Appendix A. Non-responses indicate that the agency has no issues or concerns.

4.3 Agency Outreach

The only external agency outreach performed for this project was with the Natrona County Commissioners. Based on comments received from residents to County Commissioners, the MPO and ECS Engineers were asked to present the scope of work and preliminary findings during a County Commissioner’s work session. The Commissioners provided little feedback with the exception of one Commissioner who is the Mills Fire Chief. He expressed a desire to explore secondary access alternatives to evacuate the Dempsey area in case of an emergency.

5.0 CONCLUSIONS – PREFERRED ALTERNATIVES

5.1 Recommended Alternatives and Considerations

The results of the alternatives for each phase of the project have been described above. Based on community outreach and our in-depth analysis, it is the study team’s opinion that the storm water drainage issues should be the main priority. As discussed, when surface storm water ceases (or slows) to reach the affect failure area, the risk of another failure is significantly reduced. Further, it is crucial that the slope that has previously washed out should be repaired for a long-term fix. It is not possible to know



the condition of the soil beneath and around the existing concrete rubble. Soil losses due to erosion since the last wash out could have occurred and the area may be susceptible to another failure.

A secondary access route to allow traffic to exit Dempsey does not appear to be a priority for many residents. However, it is critical that a secondary means of egress to safely evacuate residents from the area in case of an emergency be further considered. A Chamberlin Road wash out is only one potential type of emergency. Emergencies such as fires, floods, blizzards, tornados, and vehicle accidents also have the potential to occur. Emergency management coordinators in Natrona County have expressed concerns for the evacuation of residents in the Dempsey area. As a result of the PEL study, Alternatives 1 and 5 have been identified as the preferred alternatives. These alternatives follow the existing water line easement and have the added benefit of potentially providing future connectivity from east Mills to Poison Spider Road or Robertson Road.

6.0 REFERENCES

Mills Main Street Corridor Study and Plan, 2020. Nelson/Nygaard Consulting

Mills Comprehensive Plan, adopted 2017. Logan Simpson Consultants

River Front Property Programming and Feasibility Study, 2016.

North Platte River Environmental Restoration Master Plan – Phase I, 2012. SWCA Environmental Consultants and Stantec

Stantec Memo to Jolene Martinez with the City of Casper. April 5, 2017.

Planning and Environmental Linkages, PEL Handbook. 2016. Colorado DOT

Natrona County Regional Geospatial Cooperative. 2020. <https://data-cityofcasper.opendata.arcgis>

Google Earth Pro. 2020.



Appendix A

Scoping Letters

Example Scoping Letter Sent to Agencies

Scoping Letters Received



January 15, 2021

Acting Field Manager
Bureau of Land Management
2987 Prospector Drive
Casper, Wyoming 82604

RE: Chamberlin Road PEL, Agency Scoping

Dear Acting Field Manager:

The Casper Area Metropolitan Planning Organization (MPO) is conducting a Planning and Environmental Linkage (PEL) Study for the Chamberlin Road, Pleasant Valley and Dempsey Acres areas south of the Town of Mills, Natrona County, Wyoming. This is a feasibility level study in the early preliminary planning stage.

The purpose of the PEL is to address the following transportation needs:

- Evaluate and recommend rehabilitation options for a portion of the slope between Chamberlin Road and the North Platte River that previously failed due to storm water erosion. The goal is to ensure the safety and long term stability of Chamberlin Road, which is the only connection between Dempsey Acres and Mills.
- Evaluate and recommend improvement options to storm sewer system along Chamberlin Road between Pendell Boulevard and Boles Road. Improvements may include a detention pond on the east side of Chamberlin Road on Mobile Concrete property and potential work within the Chamberlin Road R-O-W drainage ditches.
- Study and recommend a second connection between Lower Dempsey and Upper Dempsey.
- Study and recommend a second connection between Dempsey area to Mills or Casper.

Decisions made in the PEL could be used in future environmental documents as individual projects in the corridor are planned and constructed. The attached map shows areas that the PEL study includes.

Storm Water and Slope Repair

Detention Pond Alternative

A detention pond located in the southwest corner of Mobile Concrete's yard could potentially be designed and constructed to intercept surface water and discharge it to the river in a slower, more controlled manner. A discharge pipe could be routed from the pond to the existing outfall approximately 300 ft south of the washout area. Routing water to an existing outfall would eliminate the requirement for a Corp of Engineer's permit and a FEMA permit.

Additional Inlets on East Side of Chamberlin Road

There are four storm water inlets on the west side of Chamberlin Road and only two storm water inlets on the east side of Chamberlin Road. Two to three additional inlets could be installed on the east side of the road and into the 60-inch Reinforced Concrete Pipe (RCP).

Perform Grading along East Side of Chamberlin Road

Flow from Mobile Concrete's yard on the east side of Chamberlin Road tends to flow along the berm at the crest of the slope down to the river. This flow then exits and flows down the riverbank slope in the direct vicinity of the washout. In addition, the existing ditch is not well defined. Grading could be performed to direct surface flows from Mobile Concrete's yard to the west towards the ditch and the ditch could be better defined to direct flows beyond the washout area further to the south toward the river where the elevation difference is much less than near the washout area.

Install Check Dams on East Side of Chamberlin Road

The soil in this part of Mills consists of silty sand and poorly graded sand with silt (alluvial deposits) which are both prone to erosion due to high velocity surface water flows. Permanent check dams constructed within the drainage ditch would slow the flow of water to help reduce the potential of erosion.

Slope Repair

The failure area could be rehabilitated by removing a portion of the concrete rubble, constructing a small berm at the toe of the slope with either soil or rock filled gabions, placing a layer of clean 1-inch free draining gravel to cover the remaining concrete rubble, and installing a permanent erosion control product. Geocell would be an example of one product that would provide long-term erosion protection. The cells could be filled with topsoil and re-seeded and re-vegetated. Once vegetated, the Geocell would not be visible. The repair area would be approximately 200 ft in width along the river and Chamberlin Road and approximately 120 ft in length down the slope perpendicular to the river.

Secondary Access Traffic Alternatives

To meet the Purpose and Need, each of the following alternatives includes a two lane gravel surfaced connection with shoulders and taper. These street connection alternatives are intended to provide secondary access to the Meadow Acres area as further described in the Purpose and Need Statement.

The screening analysis identified five potential traffic connection alternatives for the PEL (see descriptions below and attached map).

- Alternative 1 – Alternative 1 is approximately 525 ft in length and would include following an existing water line easement. Within the last 10 years a 16-inch water main was extended from Paradise Valley across the river and through property at 5192 Whitlock Road. The water line turns to the northwest near the Sam Howell Road right-of-way. This would provide a direct connection between Whitlock Road and Sam Howell Road. The water line easement is 8 ft in width. Additional easement acquisition would be required for a wider County road template.
- Alternative 2 – Alternative 2 is approximately 1,875 ft in length. At the point where River Meadows Road turns to the south, a new road would, in general, be extended to the west and



north to connect River Meadows Road and Sam Howell Road. At the point where River Meadows Road turns to the south a new road would jog slightly to the north and follow property lines approximately 1,490 ft to the west and approximately 270 ft to the north. The alignment for this option could potentially be located on vacant land with one landowner.

- Alternative 3 – Alternative 3 would consist of a bridge across the North Platte River connecting Whitlock Road to Riverbend Road in Paradise Valley. The length of this option is approximately 835 ft. Riverbend Road and Whitlock Road are nearly in direct alignment with one another. It appears existing public easements are located on both sides of the river at the specific alignment.
- Alternative 4 – Alternative 4 is approximately 860 ft in length. River Crossing is only paved up to Fulton Street to the east. River Crossing could be extended to the east to connect with Boles Road. River Crossing and Boles Road, at this location, are both in the east to west alignment.
- Alternative 5 – Alternative 5 is approximately 3,700 ft in length and would consist of extending Sam Howell Road along the existing water line easement behind, or on the west side, of residences on Boles Road (4594, 4598, 4600, and 4700 Boles Road). At the northwest corner of the property at 4594 Boles Road, the water line easement turns to the west. The proposed access road would continue to the north across Rogers land and connect with the intersection of River Crossing and South 6th Avenue.

The purpose of this letter is to provide you early notification of the proposed project. In addition, CAMPO is soliciting your input concerning this project. As such, I am writing to request a scoping letter from your agency describing any environmental resources or issues of concern in the vicinity of the project that you believe need to be addressed.

I would appreciate a written letter of response to this request by February 15, 2021, if possible. Please send the letter to the following address:

Mr. M. Jeremy Yates
Casper Area Metropolitan Planning Organization
200 North David Street
Casper, Wyoming 82601

Please contact me at (307) 235-8255 or jyates@casperwy.gov or Brian Chandler with ECS Engineers with any questions or comments regarding this request.

Sincerely,

M. Jeremy Yates
Metropolitan Planning Manager

cc: Brian Chandler, ECS Engineers (bchandler@ecsengineers.net or 307-337-2883)

Attachment – Map Exhibit







January 27, 2021

M. Jeremy Yates, Metropolitan Planning Manager
Casper Area, Metropolitan Planning Organization
200 North David Street
Casper, WY 82601

Re: Chamberlin Road PEL, Agency Scoping (DBPR_WY_2021_42)

Dear Mr. Yates.

Our staff has received information concerning the aforementioned. Thank you for allowing us the opportunity to comment.

Management of cultural resources on Federal Highway Administration (FHWA) projects is conducted in accordance with Section 106 of the National Historic Preservation Act and Advisory Council regulations 36 CFR Part 800. These regulations call for survey, evaluation and protection of significant historic and archeological sites prior to any disturbance. Provided the FHWA follows the procedures established in the regulations, we have no objections to the project. Specific comments on the project's effect on cultural resource sites will be provided to the FHWA when we review the cultural resource documentation called for in 36 CFR Part 800.

Please refer to DBPR_WY_2021_42 on any future correspondence dealing with this project. If you have any questions contact me at 307-777-5497.

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard L. Currit".

Richard L. Currit
Senior Archaeologist

Mark Gordon | Governor
Darin J. Wesley, P.E. | Director
Sara Needles | Administrator



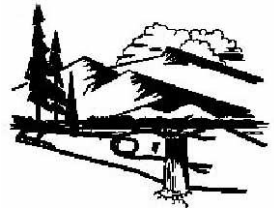
ARTS, PARKS,
HISTORY.

Supporting the State of Wyoming's Cultural Resources



Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.



Mark Gordon, Governor

Todd Parfitt, Director

February 9, 2021

Mr. M. Jeremy Yates
Casper Area Metropolitan Planning Organization
200 North David Street
Casper, Wyoming 8260

Via: jyates@casperwy.gov

Re: Chamberlin Road PEL Scoping

Dear Mr. Yates,

Thank you for the opportunity to provide comments on the Planning and Environmental Linkage (PEL) Study for Chamberlin Road, Pleasant Valley, and Dempsey Acres areas by the Casper Area Metropolitan Planning Organization. The PEL proposes to improve storm water erosion and the storm sewer system between Chamberlin Road and the North Platte River, as well as study and recommend street connection alternatives.

In accordance with Title 35, Section 11 of the Wyoming Statutes, the Wyoming Department of Environmental Quality/Water Quality Division (WDEQ/WQD) is responsible for the protection and restoration of the quality of waters of the state. The WQD also implements portions of the Federal Clean Water Act, including development of surface water quality standards, identification of impaired waters and development of total maximum daily loads for impaired waters under Section 303; inventorying water quality under Section 305; discharge permitting under Section 402; water quality certifications under Section 401; and addressing nonpoint sources of pollution under Section 319. As such, WDEQ/WQD is providing the following comments to help facilitate the review of potential impacts to water quality and ensure that the project adheres to Wyoming's Water Quality Rules and Regulations.

The WQD has reviewed the project area and would like to note the section of the North Platte River included in the project area is classified as 2AB within Wyoming's Surface Water Quality Standards, Water Quality Rules, Chapter 1. The North Platte River is designated to support drinking water, cold water game fish and other aquatic life, primary contact recreation, agriculture, industry, wildlife, and scenic value uses. In addition, antidegradation protections outlined in the Surface Water Quality Standards identify that the water quality of Class 2AB waters can only be lowered in limited circumstances. The project area is located in a public water supply source water area. As such, WDEQ/WQD recommends the project evaluate and minimize impacts to the North Platte River as well as public water supply source water areas. WDEQ/WQD would also like to highlight the following permits and other requirements that may apply, depending on the eventual scope of the project.

200 West 17th Street, Cheyenne, WY 82002 • <http://deq.wyoming.gov> • Fax (307)635-1784

ADMIN/OUTREACH (307) 777-7937	ABANDONED MINES (307) 777-6145	AIR QUALITY (307) 777-7391	INDUSTRIAL SITING (307) 777-7369	LAND QUALITY (307) 777-7756	SOLID & HAZ. WASTE (307) 777-7752	WATER QUALITY (307) 777-7781
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Protection of Water Quality and Spill Reporting. Environmental reviews should explain how groundwater and surface waters will be protected from the release of chemicals, petroleum products, produced water, and any other hazardous substances. Wyoming Water Quality Rules and Regulations, Chapter 4, also requires that WDEQ be notified of any oil or hazardous substances which have been released and which enter, or threaten to enter, waters of the state. Spills can be reported to WDEQ by calling 307-777-7501 or through the following website: <http://wyospills.org/>

Detention Pond Guidelines and Permitting. Construction of a detention pond will need to be permitted through WDEQ's Water and Wastewater Program, and will need to meet requirements identified in the Wyoming Water Quality Rules and Regulations, Chapter 11, Design and Construction Standards. Additional information is available: <http://deq.wyoming.gov/wqd/permitting-2/>

Clean Water Act Section 401 Water Quality Certifications. WDEQ/WQD is responsible for issuing Clean Water Act Section 401 Water Quality Certifications for Clean Water Act Section 404 Dredge and Fill permits issued by the United States Army Corps of Engineers and federal licenses for hydroelectric power projects issued by the Federal Energy Regulatory Commission. The 401 Certification ensures that the federal permit or license will comply with Wyoming's Water Quality Rules and Regulations, Chapter 1, Wyoming Surface Water Quality Standards. Conditions of the 401 Certification are included as conditions of the federal permit or license. Additional information is available: <http://deq.wyoming.gov/wqd/401-certification/>

Temporary Turbidity Waiver. Wyoming's Water Quality Rules and Regulations, Chapter 1, Wyoming Surface Water Quality Standards, Section 23(a) include turbidity criteria for waters designated as fisheries and/or drinking water supplies. Any type of construction activity within such waters is likely to result in exceedances of these criteria. In accordance with Chapter 1, Section 23(c)(ii), the Water Quality Division Administrator may authorize temporary increases in turbidity above the numeric criteria and may impose whatever controls, monitoring, and best management practices are necessary to maintain and protect all water uses. In circumstances where a project has the potential to exceed the turbidity criteria, a waiver is recommended. Applications must be submitted and waivers approved by the administrator before work begins. Additional information is available: <http://deq.wyoming.gov/wqd/cwa-section-401-turbidity-wetland/resources/turbidity/>

Point Source Discharge Permits. The Wyoming Pollutant Discharge Elimination System (WYPDES) Program issues permits for any point source discharges into surface waters of the state, consistent with Wyoming's Water Quality Rules and Regulations, Chapter 2, Permit Regulations for Discharges to Wyoming Surface Waters. WYPDES permits contain limitations and conditions to assure that Wyoming Water Quality Rules and Regulations, Chapter 1, Wyoming Surface Water Quality Standards, are met and are required for stormwater discharges and temporary discharges associated with construction activities, discharges to isolated wetlands, as well as longer term discharges.

Temporary Discharges from Construction Activities Permits. A WYPDES permit is required for temporary discharges to surface waters from activities such as construction dewatering, disinfection of potable water lines, and/or hydrostatic testing of pipes, tanks, or other similar vessels. Additional information is available: <http://deq.wyoming.gov/wqd/discharge-permitting/>

Storm Water Permits. A WYPDES permit is required for storm water discharges resulting from all construction activities that cumulatively disturb one or more acres. A Large Construction General Permit is required for construction activities that cumulatively disturb five or more acres and a Small Construction General Permit is required for construction activities that cumulatively disturb between one and five acres. Additional information is available: <http://deq.wyoming.gov/wqd/storm-water-permitting/>

In addition, it is important to note that Casper's Municipal Separate Storm Sewer Systems (MS4) permit issued through the WYPDES Program may be necessary.

WDEQ/WQD appreciate the opportunity to provide the above information to assist with the future environmental analysis. If you have any questions, please feel free to contact Madeleine Hamel at madeleine.hamel@wyo.gov or 307-777-7050.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin Frederick".

Kevin Frederick
Water Quality Division Administrator

cc: Lindsay Patterson, WDEQ



CASPER AREA
METROPOLITAN PLANNING ORGANIZATION
Casper - Mills - Evansville - Bar Nunn - Natrona County

January 15, 2021

Field Supervisor
US Fish & Wildlife Service – WY Field
5353 Yellowstone Rd, Suite 308A
Cheyenne, WY 82009

RECEIVED

FEB 02 2021

U.S. Fish and Wildlife Service
Cheyenne, Wyoming

U.S. Fish and Wildlife Service

Based on the information provided, you may consider this project to be in compliance with the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.* The project should be reanalyzed by our office if any new information indicates there may be effects to protected species or their habitats.

Signature/Date: **JOHN HUGHES**
Digitally signed by JOHN HUGHES
Date: 2021.02.03 13:25:53 -0700  Field Supervisor
U.S. Fish and Wildlife Service, Wyoming ES Office
334 Parsley Boulevard, Cheyenne, Wyoming 82007
TAILS: 06E13000-2021-CPA-0029 Phone: 307-772-2374

RE: Chamberlin Road PEL, Agency Scoping

Dear Field Supervisor:

The Casper Area Metropolitan Planning Organization (MPO) is conducting a Planning and Environmental Linkage (PEL) Study for the Chamberlin Road, Pleasant Valley and Dempsey Acres areas south of the Town of Mills, Natrona County, Wyoming. This is a feasibility level study in the early preliminary planning stage.

The purpose of the PEL is to address the following transportation needs:

- Evaluate and recommend rehabilitation options for a portion of the slope between Chamberlin Road and the North Platte River that previously failed due to storm water erosion. The goal is to ensure the safety and long term stability of Chamberlin Road, which is the only connection between Dempsey Acres and Mills.
- Evaluate and recommend improvement options to storm sewer system along Chamberlin Road between Pendell Boulevard and Boles Road. Improvements may include a detention pond on the east side of Chamberlin Road on Mobile Concrete property and potential work within the Chamberlin Road R-O-W drainage ditches.
- Study and recommend a second connection between Lower Dempsey and Upper Dempsey.
- Study and recommend a second connection between Dempsey area to Mills or Casper.

Decisions made in the PEL could be used in future environmental documents as individual projects in the corridor are planned and constructed. The attached map shows areas that the PEL study includes.

Storm Water and Slope Repair

Detention Pond Alternative

A detention pond located in the southwest corner of Mobile Concrete's yard could potentially be designed and constructed to intercept surface water and discharge it to the river in a slower, more controlled manner. A discharge pipe could be routed from the pond to the existing outfall approximately 300 ft south of the washout area. Routing water to an existing outfall would eliminate the requirement for a Corp of Engineer's permit and a FEMA permit.



WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006

Phone: (307) 777-4600 Fax: (307) 777-4699

wgfd.wyo.gov

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February 16, 2021

WER 14569.00

Casper Area Metropolitan Planning Organization
Planning and Environmental Linkage Study
Chamberlin Road, Pleasant Valley, and Dempsey Acres Areas
Natrona County

M. Jeremy Yates
Casper Area Metropolitan Planning Organization
200 North David Street
Casper, WY 82601
jyates@casperwy.gov

Dear Mr. Yates,

The staff of the Wyoming Game and Fish Department (Department) has reviewed the proposed Planning and Environmental Linkage Study (PEL) located in Natrona County. We have no terrestrial wildlife or aquatic concerns pertaining to this proposed study.

Thank you for the opportunity to comment. If you have any questions or concerns please contact Matt Fry, Habitat Protection Biologist, at 307-777-4510.

Sincerely,

Amanda Losch
Habitat Protection Supervisor

AL/mf/ct

cc: U.S. Fish and Wildlife Service
Chris Wichmann, Wyoming Department of Agriculture

Brian Chandler

From: Stephanie Lowe <stephanie.lowe1@wyo.gov>
Sent: Tuesday, February 16, 2021 9:41 AM
To: Brian Chandler
Subject: Re: Chamberlin Rd PEL Study

Good morning Brian,

My apologies, I thought Nick Hines from my office would be responding with all of the comments from Environmental Services. Here is what I sent Nick:

I have come to the decision that when the times comes I will want to see a class III survey of the following areas that are being looked at:

- Chamberlin Road itself probably doesn't need a class III, it's all pretty disturbed and they will be doing river stabilization (Deb might want more work), but I don't think I'll need anything.
- Area 1 was disturbed when they put in a water line, but they will build a new road if this option is chosen, so that will *not* require a class III, just a survey exemption letter.
- Area 2 requires a class III survey due to nothing in the area being disturbed, especially the field to the north.
- Area 3 requires a class III survey due to building a new bridge over the river. I assume this will be more intense in general with Deb and maybe Tom even needing to be involved.
- Area 4 is a new road connector, but the area has been disturbed so will *not* require a class III, just a survey exemption letter.
- Area 5 is one I'm a little unsure about. The southern half of the length was disturbed during water line work, but the northern half appears disturbed by some sort of trail or path. I learned this morning that this area was used previously as some sort of construction pit, so it's all been disturbed anyway. I would settle for a survey exemption letter.

I understand that this stage of the work for you is just a study, so these notes are just an FYI for when the work should occur and if there are federal dollars involved. Feel free to reach out if you have questions about any of this.

Have a good week!

Stephanie Lowe
Cultural Resources Specialist
WYDOT
Environmental Services
5300 Bishop Blvd.
Cheyenne, WY 82009-3340
Phone (307) 777-4364

E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.

On Mon, Feb 15, 2021 at 3:01 PM Brian Chandler <bchandler@ecsengineers.net> wrote:

Stephanie,

Were you going to get us a letter concerning our study and the conference call we held a few weeks ago? We plan on publishing our report later this week.

Thanks.

Brian L. Chandler, PE



Environmental & Civil Solutions, LLC

111 West 2nd Street— STE 600 – Casper, WY 82601 – PHONE: 307.337.2883 – FAX: 888.424.6090

WEB: www.ecsengineers.net

E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.



Appendix B

Chamberlin Road PEL Questionnaire



1. Background:

<p>a. What is the name of the PEL document and other identifying project information?</p> <p>b. Who is the lead agency for the study?</p> <p>c. Provide a brief chronology of the planning activities including the year(s) the study was conducted.</p> <p>d. Provide a description of the existing transportation corridor, modes, number of lanes, shoulder, access control and surrounding environment.</p> <p>e. Who was the sponsor of the PEL study?</p> <p>f. Who was included on the study team?</p> <p>g. List the recent, current or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?</p>	<p>Chamberlin Road Planning and Environmental Linkage Study.</p> <p>City of Casper Metropolitan Planning Organization (MPO), MPO Project No. 20-03.</p> <p>The project started in August 2020. Conceptual designs and alternatives were developed from August 2020 to December 2020. A public meeting was held in January 2021. The final PEL report is due on February 28, 2021.</p> <p>The existing Chamberlin Road is a two-lane paved road with no shoulders. This study addresses a portion of the Chamberlin Road corridor in the Town of Mills, Natrona County, Wyoming. The Town of Mills lies northwest of the City of Casper, Wyoming. Directly south of the Town of Mills is an unincorporated area of land bounded by the North Platte River to the west, south and east. Within this river peninsula are two residential areas within Natrona County – the Dempsey Acres/River Meadows area, which are classified as rural residential land uses.</p> <p>Local Agency – City of Casper MPO</p> <p>The Town of Mills, Casper MPO, Orion Planning and Design, and ECS Engineers</p> <ul style="list-style-type: none"> • Mills Main Street Corridor Study and Plan, ongoing 2020 • Mills Comprehensive Plan, adopted 2017 • River Front Property Programming and Feasibility Study, 2016 • North Platte River Environmental Restoration Master Plan – Phase I, 2012 <p>These past studies are not associated with the current Chamberlin Road PEL study.</p>
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2. Methodology Used:



<p>a. Did the study follow the FHWA PEL Process? If the study was conducted by another US DOT Agency, provide a crosswalk table to demonstrate how the FHWA Process was utilized.</p> <p>b. How did the study meet each of the PEL Coordination Points identified in 23 USC 168?</p> <p>c. What NEPA terminology/ language was used and how did you define them?</p> <p>d. How do you see these terms being used in NEPA documents?</p> <p>e. What were the key steps and coordination points in the PEL decision-making process? Who were the decision makers and who else participated in those</p>	<p>Yes, the study followed the FHWA PEL process.</p> <p>The lead agency and project sponsor were identified. A pre-NEPA review process was performed and a planning product consisting of decision making, analysis, and evaluation was carried out by the local metropolitan planning organization.</p> <p>Example NEPA terms included: Purpose and Need: The Purpose and Need statements describe the transportation needs that exist and the problems to be addressed. It is the basis for developing the study's alternatives.</p> <p>No Action Alternative: The No Action Alternative considers reasonably foreseeable and programmed projects near the study area. It also refers to an alternative that includes no actions to remediate issues.</p> <p>Public Involvement: The public involvement provided allowed residents the opportunity to contribute to the PEL process.</p> <p>Agency Outreach: Government agencies were contacted with scoping letters to inform them and receive feedback.</p> <p>Environmental Resources: The PEL discusses existing factors to establish baseline conditions and discusses environmental consequences from the study alternatives.</p> <p>The terms were used in the PEL and can be carried forward in NEPA documents.</p> <p>A Purpose and Need statement was identified by the MPO with coordination from the project sponsor. A Consultant was contracted to perform a PEL study. Decisions were made by committee from members of the MPO, project sponsor and the Consultant.</p>
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<p>key steps? For example, for the corridor vision, the decision was made by CDOT and the local agency, with buy in from FHWA, USACE, USFWS.</p> <p>f. How should the PEL information below be presented in NEPA?</p>		<p>This PEL completes the early planning stages for future NEPA projects. Future NEPA work will include providing notice to the public and government agencies that the PEL will be used and that the PEL report will be made available to these parties for review and comment.</p>
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3. Agency Coordination:

<p>a. Provide a synopsis of coordination with federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.</p> <p>b. What transportation agencies did you coordinate with or were involved in the PEL study? This includes all federal agencies if the study is being led by a local agency or transit oriented study seeking to utilize the FHWA PEL Process.</p> <p>c. What steps will need to be taken with each agency during NEPA scoping.</p>		<p>After the development of alternatives, scoping letters were sent to the following county, state and federal agencies: EPA, US Army Corp of Engineers, Bureau of Land Management, Wyoming Department of Environmental Quality, Natrona County Planning, Natrona County Conservation District, Natural Resource Conservation Service, Wyoming Historic Preservation Office, US Fish and Wildlife, Wyoming Game and Fish, Wyoming Office of State Lands. Their comments are included in the PEL.</p> <p>The City of Casper Metropolitan Planning Organization initiated the PEL study and the Town of Mills is the project sponsor.</p> <p>The agencies will be contacted at the start of further NEPA studies along the corridor and within the project study area. Agencies will be requested to reference their previous assessments and involvement with the PEL.</p>
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4. Public Coordination:



<p>a. Provide a synopsis and table of your coordination efforts with the public and stakeholders.</p>	<p>The Town of Mills, the MPO, and ECS Engineers held a public meeting on January 11, 2021 to inform and involve the residents of Dempsey and Mills about the feasibility level study to provide secondary connections between South Dempsey and North Dempsey and between Dempsey and either the Town of Mills or Casper and to stabilize the slope that previously washed-out and threatens Chamberlin Road. Residents had the ability to attend the meeting in person or via remote access. Residents were also encouraged to contact the MPO or ECS Engineers by phone, email, or Facebook to express their opinions and ideas. The open house public meeting provided opportunities for individuals interested in the proposed feasibility level study to express their concerns and have questions answered.</p>
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5. Corridor Vision / Purpose and Need:

<p>a. What was the scope of the PEL study and the reason for doing it?</p> <p>b. What is the vision for the corridor?</p> <p>c. What were the goals and objectives?</p>	<p>The scope of the study is to evaluate alternatives to provide stability for the Chamberlin Road access to the Dempsey area south of the Town of Mills. Specifically, alternatives address bank stabilization for the North Platte River, necessary drainage and erosion control measures, as well as any traffic safety issues at the study area. In addition, the study evaluated alternatives for secondary access to the Dempsey area, outside of the Chamberlin Road corridor.</p> <p>The Chamberlin Road corridor will be improved by correcting surface storm water flow patterns and stabilizing the riverbank slope area that has experienced past wash-outs. In addition, continued exploration of a secondary access route would allow Dempsey residents a second means of egress.</p> <ul style="list-style-type: none"> • Address traffic and access safety issues in the PEL study area. • Provide a plan for drainage and erosion control protection, designed to meet transportation needs projected by the PEL study during a 25-year horizon. • Evaluate environmental improvements needed on the west bank of the North Platte River. • Identify potential environmental impacts of an asset protection project on historical sites, wetlands, endangered species, and wildlife habitats. Identify
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		<p>potential mitigation strategies for the same in preparation for a full NEPA report.</p> <ul style="list-style-type: none"> • Provide preliminary cost estimates associated with the plan for land surveying, design engineering, and construction engineering. • Provide options for one or more secondary means of access to the Dempsey area to promote connectivity and produce emergency access if needed. • Avoid and minimize utility and environmental impacts. • Provide cost-effective alternatives for environmental and access remediation. • Provide consideration of a “Do Nothing” option.
d. What is the PEL Purpose and Need statement?		<p>The Purpose of the study is to evaluate alternatives to provide stability for the Chamberlin Road access to the Dempsey area south of the Town of Mills and to evaluate alternatives to improve safe transportation access to residents of Dempsey in case of emergency.</p> <p>The Need includes:</p> <p>Need 1: Protect and restore Chamberlin Road from the intersection of Pontiac and Chamberlin Road to the boundary of the Town of Mills approximately 415 yards to the south, ensuring continued access in and out of the Dempsey area.</p> <p>Need 2: Provide connectivity between the Dempsey area and the Town of Mills and/or the City of Casper to produce a roadway network that allows secondary access in the event of an emergency or situation in which the Chamberlin Road access becomes blocked or impassible. The potential washout of Chamberlin Road is only one type of emergency. Other types of emergencies that should be considered by the residents are fires, floods, and traffic accidents.</p>
e. What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?		<p>For future NEPA studies, the PEL Purpose and Need goals will need to be re-visited and some data will need to be updated. However, changes to the Purpose and Need statement are not expected.</p>



6. Range of Alternatives Considered, Screening Criteria and Screening Process:

<p>a. What types of alternatives were looked at? (Provide a one or two sentence summary and reference document).</p>	<p>To remediate the storm water issues, alternatives include siting a detention pond, installing additional inlets to the existing storm water pipe, grade the drainage ditch with the ROW to direct surface water away from the affected area, and install check dams within the drainage ditch to slow surface water flows. Slope remediation alternatives include various methods to remove a portion of the existing concrete rubble and place permanent erosion control measures. Alternatives for secondary access to Dempsey include four inner connection routes and a bridge across the river. Refer to Section 3.0 in the PEL report.</p>
<p>b. How did you select the screening criteria and screening process?</p>	<p>This was obtained through input gathered by public comment and analysis by the Town of Mills, Casper MPO, and ECS Engineers.</p>
<p>c. For alternatives that were screened out, briefly summarize the reasons for eliminating or not recommending the alternatives. (During the initial screenings, this generally will focus on fatal flaws).</p>	<p>Some alternatives were eliminated due to adjacent land limitations. The Regional Water well field is located adjacent to South Dempsey. Across the river is Morad Park, which when originated included a stipulation that no new roads can be constructed through the area. Other alternatives were very costly and they were likely to generate more traffic.</p>
<p>d. How did the team develop alternatives? Was each alternative screened consistently?</p>	<p>Alternatives were developed by analysis of existing right-of-ways, easements, property lines, utilities, and land use. Each alternative was screened using a consistent process.</p>
<p>e. Which alternatives were recommended? Which should be brought forward into NEPA and why?</p>	<p>Remediation of the storm water issues are recommended as well as the remediation of the failed slope area. These two items will stabilize Chamberlin Road so that if a secondary access is not considered safe and reliable access will still remain. For secondary access, Alternatives 1 and 5 have been identified as the preferred alternatives. These alternatives follow the existing water line easement and have the added benefit of potentially providing future connectivity from east Mills to Poison Spider Road or Robertson Road.</p> <p>Public stakeholders, agencies, and residents had opportunities to comment during the PEL study. The public</p>



f. Did the public stakeholders, and agencies have an opportunity to comment during this process? Summarize the amount of public interest in the PEL study.		interest was significant. The two public information meetings were well attended (30 at each one), and nine emails, Facebook comments, and phone calls were received.
g. Were there unresolved issues with the public, stakeholders and/or agencies?		No major unresolved issues with the public, stakeholders, or agencies were identified. However, based on some of the comments during the public information meetings, many residents and landowners do not appear to be supportive of the secondary road access due to concerns that it may increase traffic volumes.

7. Planning Assumptions and Analytical Methods:

a. What is the forecast year used in the PEL study?		N/A
b. What method was used for forecasting traffic volumes?		Traffic counters were used at the Town of Mills boundary. Traffic estimates beyond the official counts were estimated by assuming a proportional relationship between the number of residences in each area to the traffic counts.
c. Are the planning assumptions and the corridor vision / purpose and need statement consistent with the long range transportation plan?		N/A
d. What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?		N/A



8. PEL to NEPA Study:

a. What pieces of the PEL can transfer directly to the NEPA phase of a project?	The government agency scoping letters received can be useful tools for future NEPA studies.
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9. Resources (wetlands, cultural, etc.) reviewed. For each resource or group of resources reviewed, provide the following:

a. In the PEL study, at what level detail were the resources reviewed and what was the method of review?	Resources such as wetlands, cultural, wildlife, were reviewed by information received through the agency scoping letters.
b. Is the resource present in the area and what is the existing environmental condition for this resource?	The PEL report describes resources present in the study area and existing environmental conditions for each.
c. What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?	Issues to be considered during future NEPA studies will depend on the future NEPA project being evaluated, or specific alternatives chosen. The bridge alternative would require comprehensive NEPA studies to evaluate wetlands, wildlife, bird habitat, and aquatic species, whereas these will not be a concern for other potential alternatives. Mitigation would depend on the various potential impacts.
d. How will the data provided need to be supplemented during NEPA?	The data within this PEL will need to be supplemented by more detailed assessments once the final alternatives are selected for implementation.

10. Resources:

a. List resources that were not reviewed in the PEL study and why? Indicate whether or not they will	The study did not evaluate some resources that likely would not influence the screening of alternatives. These resources include noise, vegetation, and air quality. Resources not evaluated should be evaluated during future NEPA studies to determine if analysis is required. Most impacts (dust, noise, vegetation) will be construction-related and therefore short-
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need to be reviewed in NEPA and explain why.		term and temporary. Remediation of significant impacts would be required.
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11. Cumulative Impacts:

a. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where it can be found.		Cumulative impacts were not evaluated.
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12. Mitigation Strategies:

a. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.		N/A
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13. NEPA Study:

a. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?		The MPO, in coordination with FHWA and WYDOT, will make this PEL study available to the agencies and public during future NEPA scoping processes along the corridor before adopting planning products from the PEL into future NEPA studies. No planning products are in the PEL.
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14. Other Issues:

a. Are there any other issues a future project team should be aware of? (such as utilities, ROW, access, problematic landowners, etc.)		In general, it appears the majority of landowners are not in favor of providing a secondary access route into and out of the Dempsey area. The secondary access alternatives, with the possible exception of the bridge, would require right-of-way or easement acquisition. The landowners may or may not be cooperative.
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15. Corridor Build-Out:

a. Provide a table of identified projects and/or a proposed phasing plan for corridor build out.		N/A
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16. Funding Sources:

a. Provide a list of what funding sources have been identified to fund projects from this PEL.		No funding sources for this feasibility level PEL study have been identified.
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Appendix C

Comments to Chamberlin Road PEL Draft Study



Comment No. 1

Mr. Chuck Davis with the Casper MPO Citizens Committee made the comment that the proposed 24 to 25 ft wide secondary access roads do not meet the standard road widths to accommodate bicycle lanes.