



JACKSON COUNTY

Oregon

Board of Commissioners

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January 22, 2019

Mr. Bob Lobdell, Resource Coordinator
Oregon Department of State Lands
775 Summer Street NE Suite 100
Salem OR 97301-1279

RE: Comments on Jordan Cove Energy Project, Application No: APP0060697

Dear Mr. Lobdell:

The Jackson County Board of Commissioners is unanimously opposed to the Jordan Cove Pipeline Project. The proposed Pacific Connector Gas Pipeline Project has not been adequately planned and comments by this Board on its impacts as disclosed in the Joint Permit Application (JA) are premature. An Environmental Impact Statement, draft or otherwise, has not been prepared ahead of, and particular to, this Application. Without a proper environmental analysis, it is impossible to adequately address the impacts to wetlands and waterbodies simply by stating that Best Management Practices (BMP) will be followed which is what the Application states.

With that, the Application is flawed enough to offer the following comments and concerns although there may certainly be others not contemplated or addressed here because of the incomplete nature of the proposal. Comments in this letter will be limited to the scope of the JA to the Oregon Department of State Lands (DSL) and Army Corp of Engineers, relating to wetlands and waterbodies, but there are numerous other concerns with the project beyond this scope and which are not pointed out in this letter.

Purpose and Need (JA, page 2)

The project's purpose and need statement describes the growth of an international demand for Liquefied Natural Gas (LNG) as a response to a "burgeoning and abundant" supply of natural gas in the Rocky Mountains and Western Canada and it justifies the project's need on this basis. While we can appreciate the Applicant's desire to capitalize on the present abundance of natural gas largely made possible by the hydraulic fracturing activity that has occurred in the past 15 years or so, it is not clear what, if any, public purpose is served by the proposed project or how the impacts of the project to sensitive wetlands and waterbodies are justified by its need. Additionally, it is unclear as to whether the project is a response to a relatively temporary set of circumstances. Given that drilling activity has been significantly curtailed in the past few years, at least partially in response to lower prices, it follows that the production of natural gas may not in fact be "burgeoning" as the Applicant states, but rather headed for decline in the not-too-distant future.

Generally, the longstanding United States energy policy is to reduce reliance on foreign energy supplies. Local and State policies are typically consistent with this objective, along with other objectives such as conservation of energy. The proposed project calls for the export of our energy resources, which seems to be contrary to both of these objectives. Although Canadian corporations may stand to make short-term

profits through the export of our gas resources, the public's interest in such activity has not been defined. All indications are that the benefits to Jackson County will be extremely minimal, while the costs to our wetlands and waterbodies appear to be high.

There is No Decommissioning Plan

Considering the above concerns about long-term financial viability of the hydraulic fracturing natural gas market, there needs to be a plan in place to decommission the pipeline if need be. There is no indication that the pipeline would be removed and the wetlands and waterbodies restored to their previous state, or simply abandoned with unknown long-term environmental consequences. This issue must be addressed properly before any application affecting the health of sensitive wetlands and waterbodies can be approved.

No Financial Assurance That Environmental Damages in the Event of Pipeline Failure Will Be Mitigated

In the event of a pipeline failure, either caused by vandalism, an act of terrorism, or by equipment breakdown, an action plan or even who will cover the costs of mitigation and restoration is not addressed. The Applicant "Property Owners" are listed as: Fort Chicago Holdings II, LLC and APCO Coos Properties, LLC; both of these are Limited Liability Corporations. As with PG&E recently filing for Chapter 11 Bankruptcy in response to the massive California wildfires, this shows that the State or County are offered no assurances that environmental damages to sensitive wetlands and waterbodies will be restored or funded. Beyond emergency protocol, there needs to be a restoration action plan that adequately addresses these concerns with financial assurance by way of bond or other means so that State and Jackson County agencies will not be left to deal with, and pay for, necessary restoration and reclamation.

Erosion Control and Revegetation Plan (JA, page 2198)

The Application does not adequately address erosion control and revegetation in Jackson County. The Application (page 714) references that the ESCP must include as one of the elements: "Local Government Requirements. Include any procedures necessary to meet applicable local government erosion and sediment control or stormwater management requirements."

Our local Jackson County Riparian Ordinance would require that any disturbance to a riparian area be mitigated by way of a replanting plan. This Application is in direct conflict with our Riparian Ordinance as the Right of Way (ROW) will be kept clear of vegetation. Additionally, our Stormwater Management Plan administered by Rogue Valley Sewer Services (RVSS) will be impacted without a clear sense as to the extent of what that impact will be. The Application must address how compliance with the local regulations, of which the Application claims will be met, can be met considering the proposal is in direct violation of our local Ordinance.

Additionally, the previous application's Final Environmental Impact Statement (pages 5-6) indicated: "The Pacific Connector pipeline would cross about 94.3 miles of soils with a high or severe water erosion potential, and 16.2 miles of highly susceptible to wind erosion. The pipeline alignment would cross approximately 72 miles of soils classified as prime farmland or farmland of statewide importance."

A delineation was not found as to what, if any, of these conditions exist in Jackson County to properly address impacts to the County. Since there was obviously a study done to determine the extent of this erosion impact, the Application must share that information with the County and address which areas are of concern and the steps taken for erosion control.

As a third reason for denial of the Application regarding erosion control, both the Erosion and Sediment Control Plan and the Upland Erosion Control Plan rely almost exclusively on Best Practices to be implemented by the contractors and Erosion Inspectors on a site-specific determination of what measures should be applied. This most certainly will lead to errors in judgement motivated by least expensive options. The Best Practices should not be left to the contractors to determine what is best, and there needs to be a site-specific accounting of what will be done to mitigate sediment and erosion.

Wetland Construction and Mitigation Procedures (JA, page 2276)

The Application does not address wetland construction and mitigation adequately and should be denied for the following reasons:

- The Application (JA, pages 1054-1061) lists 87 wetlands or waterbody crossings with the ROW in wetland areas is to “not exceed 75 feet.” (JA, page 804). Almost all of these crossings are achieved by a “dry-open cut” crossing method. The Application notes that these “dry-open cuts” will be made regardless of whether there is water flowing at time of construction. A trench during flow conditions will surely cause sediment and turbidity issues. Construction during flow cannot be allowed and/or site specific procedures to properly mitigate need to be in the Application.
- The Application states: “Hazardous materials, including chemicals, fuels, and lubricating oils, are not stored within 100 feet of a wetland, waterbody ...” (JA, page 824). Depending on the quantity and type of hazmat stored, the 100 feet is not adequate. The slope and terrain are not taken into consideration as factors to the distance and there are no provisions for a barrier containment proposed. Both of these considerations need to be addressed in the Application.
- There is no plan to restore wetland hydrology. (JA, page 834) The Application only indicates this will be site-specific without any specific means or methods proposed. The Application needs to address how this will be achieved.
- The Application in the area of wetland construction mitigation allows for: “The project sponsor can burn woody debris in wetlands, if approved by the COE and in accordance with state and local regulations, ensuring that all remaining woody debris is removed for disposal.” (JA, page 2293) The Codified Ordinances of Jackson County have specific open burning and Air Quality Maintenance Area requirements and the Application needs to require that contractors adhere to our standards.

Culvert Crossing Practices (JA, page 2345)

The culvert crossings will require a temporary equipment bridge (JA, page 2568) to be installed. This does not adequately address the fact that the initial pass through will require heavy equipment to pass across “if necessary to assist in installation of the bridge.” It appears this will occur whether or not there is water flowing and this will certainly cause sediment and turbidity issues. A mitigation plan to account for this initial pass needs to be addressed in the Application.

Additionally, spoils from the excavation are only required to be placed ten feet from the water’s edge. (JA, page 2568) Considering the amount of excavation required to allow for a 36” pipe burial, ten feet is woefully inadequate to stop migration of the spoils from reentering the affected wetland or waterbody. This

proposal needs to be rejected and an adequate distance to account for the pile sizes, terrain, and slope descending into the wetland or waterway accounted for in the Application.

Spill Prevention, Containment, and Countermeasures Plan (JA, page 2691)

The Application is inconsistent and has sections in direct conflict with previously stated plans, and the Application should be denied until the proposals accurately and consistently depict the procedures and plan to be implemented.

The Application states "hazardous substances, chemicals, fuels and lubricating oils will not be stored within 150 feet of waterbody banks or wetlands or within 200 feet of water supply wells (400 feet of municipal or community water supply wells)." (JA, page 2693) This is in direct conflict with the wetland mitigation plan comments on page 824, which only require 100 feet from water's edge. At minimum, the plan needs to have this standard consistent to the higher distance standard or better. Additionally, 200 feet is not an adequate safe distance from a well as this is dependent on the site-specific soil types and water table height.

Furthermore, the Spill Prevention, Containment, and Countermeasures (SPCC) Plan describes "*measures to prevent and control any inadvertent spill of hazardous materials such as fuels, lubricants, and solvents that could contaminate soils and affect water quality.*" (JA, page 2347) The plan is generically vague and leaves decisions to the contractor to follow best practices. The Application needs to address what the "measures to prevent and control" are and not leave it to the discretion of the contractor.

Hydrostatic Test Plan Including Potential Water Source Table (JA, page 3314)

After backfilling, the pipeline will be strength tested by means of hydrostatic testing, which will require a substantial amount of water. Potential sites for water sources in Jackson County are listed in the table below. These sites are also indicated as potential dust control water sources. (JA, page 2573)

Jackson	128.50	Indian Lake Reservoir	David Schott
Jackson	133.38	Eagle Point Irrigation Canal Crossing (Medford Aqueduct)	Meriweather Southern OR Land-Timber
Jackson	141.00	Star Ranch Lake	C2 Cattle Co Limited Partnership
Jackson	144.00	Unnamed Reservoir	C2 Cattle Co Limited Partnership
Jackson	145.00	Gardener Reservoir	C2 Cattle Co Limited Partnership

The Application does not indicate whether agreements have been made with the property owners or State Water Resources for removal of this water for a private company-owned project. These water sources are important for irrigation, fire suppression, and livestock watering. Considering the drought conditions of the last several years, and extreme fire conflagrations in Oregon and this region of the country, removing water from these sources is detrimental to our ranching community and a life-safety issue when reducing water supply available for wildland fire suppression.

Additionally, beyond the life-safety and economic reasons stated above, the plan does not adequately address:

- **Invasive Species:** The Application states that, "*PCGP will implement a three-step BMP treatment process to prevent the potential spread of invasive species and forest pathogens from non-*

municipal surface water sources used during hydrostatic testing." (JA, page 2575) Additionally, *two manmade channels are proposed for limited withdrawal permits, the Medford Aqueduct (MP 133.38)"* (JA, page 2574)

These are just best management practices which are, once again, left to the discretion of the contractors to implement.

- **Thermal analysis:** The Application states that, *"Six open waterbodies (lakes and reservoirs) are proposed for limited withdrawal permits during hydrostatic testing. Thermal analysis was not completed to evaluate impacts to open waterbodies as thermal modeling of lakes requires substantially more data input than for streams."* (JA, page 2574)

Once again, considering the drought conditions of the last few years, a thermal analysis needs to be required as part of the Application and before use. Algae blooms, fish and aquatic life that includes aquatic plant species, some of which are unique to our region threatened or endangered, need to be inventoried and the water column thermal rise addressed. If it is determined there are detrimental effects, these water sources need to be removed from the Application.

- **Discharge rates are undetermined:** The Application states, *"Discharge rates would range from several hundred gallons per minute to several thousand gallons per minute. The specific hydrostatic discharge rate at each discharge location cannot be estimated at this time because the discharge rate is dependent on a number of factors specific to each discharge location."* (JA, page 2574)

The pipeline size and location is known to the applicants and as part of the Application; the test sections need to be identified along with the discharge locations. This should not be something to be determined "in the field." This information and planning needs to be detailed as part of the Application. The discharge rates can adversely affect wetlands and waterbodies if there is too much water, or if it is discharged too fast.

Horizontal Directional Drilling Design (HDD) in Jackson County (JA, page 3053)

The proposed Rogue River Crossing is approximately two miles north of Shady Cove and the entry point of the pipeline is located in close proximity (200–400 feet) to existing single-family residences. Noise mitigation at the entry point close to the residences is limited to "noise reducing mufflers" for the equipment and/or "baffles around the equipment" at discretion of the contractor "if needed."

This issue, along with the proximity to neighboring residential wells addressed earlier, is inadequate. Property owners will be subjected to environmental and noise issues. The Application needs to be revised, at minimum, to change location of the crossing away from a residential area.

Furthermore, the pipe will be 36" in diameter and generally, as is standard industry practice, pipes over 30" will need to be filled with water or some other material during the pull through to stop buoyancy issues. Buoyancy issues are not addressed in the proposal. Considering the potential impacts of the pipeline rising to or through the riverbed, the Application needs to address this issue or be denied.

The third defect in the Application for HDD is that the "drilling fluid" used to keep the drilling string operating is at pressure. The Application does not address loss of this fluid entering into the waterway. The drilling fluid loss, which generally occurs at the terminuses or which could occur through hydraulic

fracture back to the river bed during the drilling or pipe installation, is not uncommon. A study which was published in the Pipe Line & Gas Industry periodical by Harder, P.A. and Associates, LTD ("Case history review of directional drill projects for water crossings." 1994) found that 13 out of 30 water crossings studied in western Canada and the continental United States had drilling mud releases. Anecdotal observations indicated there was actually a higher frequency of occurrences, most likely not reported. With what amounts to a 43 percent probability that the HDD will have a mud release, this must be accounted for as to how this will be dealt with in the Application.

The fourth deficiency in the Application surrounding the HDD section is again erosion control. The erosion control measures to stop sediment from the entry and exit sites from migrating and entering the river "recommend that state and local regulations be followed during and after construction operations." This requirement needs to be mandatory in the Application to ensure that local control is in place for what will impact Jackson County directly.

There is No Wildfire Mitigation Plan

The construction of the pipeline will most likely occur during drier months to help facilitate the excavation and fill process. This will be at peak fire season. Beyond the plan including wood debris burning and removal of fire suppression water sources, there is no mention of even Best Practices to prevent and/or suppress a wildfire caused by construction activities. Wildfires, beyond the impact to communities and our forest, detrimentally impact wetlands and waterways not just from the fires themselves but also by the fire breaks, water removal, and sediment and turbidity issues caused by the fire and fire suppression methods necessary to fight and contain the conflagration. This must be a requirement of the Application.

Total Maximum Daily Load (TMDL) Not Addressed

The proposed project would cut through 87 wetlands or waterways in Jackson County resulting in the removal of swaths of riparian vegetation and could potentially, substantially increase sedimentation and turbidity in these streams. These are the very same impacts that the Oregon Department of Environmental Quality is requiring Jackson County to do everything possible to avoid through our Total Maximum Daily Load (TMDL) plan. Given the scale of the impacts that are being considered with this proposal, Jackson County's efforts with respect to our TMDL plan will be over shadowed by the projects potential impacts. This needs to be addressed in the Application and Jackson County held harmless for activities over which the County would have no control.

Off Road Vehicle Access

The Application does not address security measures to keep off road vehicles from using the ROW in environmentally sensitive areas. These areas, in addition to the wetlands, also include elk or deer habitat overlays. An open ROW without security or barriers is an open invitation for off road vehicles to go "mudding" in these areas and destroy the fragile environment necessary for the wetlands survival. Sediment and turbidity in stream crossings are also major concerns. The Application must address this issue to stop irreparable harm to the wetlands and water crossings.

Mercury

The Rogue River has been identified as impaired for mercury based on fish tissue analysis. Mercury impairments in the Rogue River must be acknowledged and all necessary steps must be taken to prevent erosion during and after construction are implemented, including soils testing.

Seismic and Landslides

The Application needs to appropriately account for and require appropriate mitigation for landslides and earthquake fault crossings along the proposed pipeline route. Statewide landslide information appears to show hundreds of landslides along the generalized pipeline route. Landslides are of particular concern to waterways. Fault lines and landslides within Jackson County need to be cataloged, and detailed and appropriate construction methods for a seismic D Zone addressed in the Application.

Summary

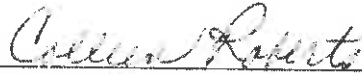
These comments are limited to concerns regarding the Application to DSL concerning the impacts to wetland and waterbodies. There are many other concerns to the pipeline project not reflected in the scope of comments allowed for this Application. With that, issues and deficiencies in the Application are numerous. The Application poorly addresses key concerns and outright misses or omits others; any one of which, detailed in this comment letter, should be enough to deny the Application. The Jackson County Board of Commissioners respectfully asks the Oregon Department of State Lands to deny this Application until these deficiencies in the Application are properly addressed.

Sincerely,

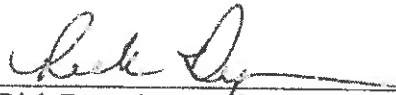
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