

Natalie Ranker
414 Simpson Ave
North Bend, OR 97459

City of Coos Bay Planning Commission
500 Central Ave
Coos Bay, OR 97420

Re: AM-18-011/RZ-18-007/HBCU-18-003

Dear Planning Commissioners,

I would like to address some of the many important problems with the dredging of the navigation channel for the the Jordan Cove Energy Project (JCEP).

- 1- Public need - This dredging will provide no benefit to the public. The only benefit will be to enrich Jordan Cove with a 1%-2% increase in LNG export from the straightening of the navigation channel as stated in their Removal Fill Application. This certainly does not satisfy a public need that outweighs harm to navigation, fishing, and recreation.
- 2- The dredging will cause definite harms to Coos Bay and local residents who live, work, and recreate around the Bay and navigation channel. The final distribution of 600,000-750,000 cy of dredged materials to Apco 1 and 2 sites is contingent upon slope stability, the ability to ensure adequate residence time of spoils and safe access for equipment. It will require management of discharge positions and rates to ensure water quality standards and side slope stability. What contingencies will be met? JCEP has made no assurances of how they will guarantee the stability of the massive piles of spoils. *JCEP Removal Fill App. states above.*
- 3- What will be the composition of the spoils? JCEP has stated that they are required to test them but have not stated how. From years of industry, there are deposits of heavy metals and toxic contaminants, including arsenic. Will these and other contaminants be safe to deposit on Apco 1 and 2, which is less than 1/2 mile from Simpson Heights, a neighborhood of more than 750 people according to Nextdoor Neighborhoods? And if the spoils are proven to be toxic, what will JCEP do with them? They have provided no information about makeup or contamination levels.
- 4- This from JCEP's Removal Fill Application, 6.0, p.59
5,700,000 cy will initially be dredged from the slip and access channel. Periodic maintenance will occur every 3 years for the first 10 years and every 5 years sfter. This will result in 115,000 cy of spoils every 3 years and 160,000 cy every 5 years thereafter. Along with the problem of where to deposit more spoils, there will be a constant re-silting problem that will cauce damage to oyster beds, crab larvae, and salmon fry. Coos Bay is dependent on these resources to bring millions of dollars into our local economy. Our Coho salmon are endangered, which is admitted in the JCEP application along with 8 other species that they do not name, steelhead and water fowl among them.
- 5- There will be subsurface blasting required at several sites along the navigation channel. *with sound greater than 218 dB*
This will kill numerous salmonid species through barotrauma, which affects the inner ear and leads to immediate or delayed mortality.
- 6- The noise from blasting, dredging, pile driving and other activities will drive away tourists staying at the North Spit and Empire campgrounds as well as creating great discomfort for people fishing, clamming, recreating along the channel. In 2017, Coos County brought in \$271 million

from tourism. This is far greater than JCEP will ever provide to our residents, and we can't afford to lose it.

There are also many problems with the horizontal directional drilling (HDD) pipeline that will pass 100 - 200 ft under the bay.

1- Coos Bay has thousands of years of silt making up its base structure. In their removal fill ap. JCEP stated they have only attempted two bores, and they did not reach bedrock. Years ago when Williams was in charge of the pipeline, they attempted many unsuccessful bores due to the fact that the walls collapsed after 35 ft. They concluded that the soils in the bay and channel will not hold up to building an HDD pipeline.

2- As previously stated, JCEP is required to test and dispose of offsite all dredging materials. The same is true of all of the spoils from the 3000 ft. HDD pipeline from the Jordan Cove facility to the Apco site just below the McCullough Bridge. These spoils are drilling mud which is made up of bentonite, polymers, fresh water, and drill cuttings from the bottom of the channel. They must be contained, tested, and shipped offsite. To provide a reference, a 300 ft bore for a 4" gas pipeline will require 1320 gal. of drilling mud.*₁ This computes to 13,200 gal of mud for a 3000 ft (10 X longer) 4" pipeline and 118,800 gal for a 36" (9 X wider) pipeline.

To calibrate weight...I was unable to find the weight of drill mud filled with drilling cuttings. However, one gallon of water weighs 8.33 lbs, and a gal. of water filled sand weighs 16.04 lbs.*₂ I have given a low estimate of 10 lbs/gal. Thus, the weight of 118,800 gal of mud and cuttings would weigh 1,888,000 lbs. This material must be transported in water tight containers, so there will be no leakage. Most drillers use 20 cy roll off containers, which, due to the weight of this material can only be filled half way. At 10 lb/gal, a 20 cy container will hold 20,200 lbs plus the additional weight for the container.*₃ Therefore, the 1,888,000 lbs of HDD spoils will require a minimum of 59 trips carrying the 20 cy watertight containers. And where will these spoils be disposed of? Depending on the contents, which will only be discovered after the required testing, JCEP may not be able to use Beaver Hill, and they may have to find other sites at perhaps long distances. None of this can be predicted until JCEP starts boring, and they may end up with a massive amount of spoils and nowhere to dispose of them.

Due to all of the above mentioned unknowns, I believe it to be right to demand more study of the contents of dredge/HDD spoils and where they will be taken for disposal. JCEP should provide this information before they are allowed to start dredging or boring. More time is required for these reports.

1-<https://trenchless technology.com/drilling-fluids-critical-hdd-jobs/>

2-<https://aqua-calc.com/calculate-volume-to-weight>

3-<https://convertto.com/conversion-weight-volume-/convert-ydofwater-to-us-gal-of-water-volume>

Respectfully submitted,



Natalie Ranker

HEARLEY Henry O

From: HEARLEY Henry O
Sent: April 25, 2019 12:50 PM
To: Natalie Ranker; CALLISTER Jacob (LCOG)
Cc: Carolyn Johnson
Subject: RE: Application file No. 187-18-000153-PLNG-01

Good afternoon Natalie,

Thank you for your comments. I have received them and will include them in the record.

Respectfully,

Henry

From: Natalie Ranker <nattim7072@gmail.com>
Sent: April 25, 2019 12:45 PM
To: HEARLEY Henry O <HHEARLEY@Lcog.org>; CALLISTER Jacob (LCOG) <jcallister@lcog.org>
Subject: Application file No. 187-18-000153-PLNG-01

Dear Sirs,

Please accept the attached statement as testimony for Coos Bay Planning Commission Application file No. 187-18-000153-PLNG-01.

Thank you,
Natalie Ranker

Natalie Ranker
414 Simpson Ave
North Bend, OR 97459

April 25, 2019

City of Coos Bay
Planning Dept.
Coos Bay, Or 97420

Re: Application file No. 187-18-000153-PLNG-01

Dear Coos Bay Planning Department,
Please accept the following comments into the record for Application file No. 187-18-000153-PLNG-011 filed by Jordan Cove Energy Project (JCEP) for Coos Bay Estuary Navigation Alteration.

First and foremost, there is no public need to dredge in the areas that JCEP is proposing. In a letter dated May 10, 2018, from the USCG to Mr Rich McGuire of the FERC, Capt. W R Timmons states, "Based upon a comprehensive review of Jordan Cove's WSA, and after consultation with State and Local port stakeholders, I recommend that the Coos Bay Channel be considered suitable for accomodating the type and frequency of LNG marine traffic associated with this project." A subsequent letter dated Nov 7, 2018 from USCG Commander J C Smith, Captain of the Port, Sector Columbia River stated that simulated transits by Coos Bay pilots demonstrated that they could safely and successfully maneuver LNG carriers up to 299.9 meters (983.3 ft.) in length, 49 meters (160.8 ft.) in beam, and 11.9 meters (39 ft.) in draft, which is the proposed size of an LNG carrier. Also in support of the letter of May 10, 2018, a water suitability assessment (WSA) was performed in the Coos Bay channel on Nov 1, 2017 to analyze the suitability of the channel to support marine traffic. This analysis states on p 9 and 10 of Exhibit 4 in the application, "Based on my review of the WSA completed on Nov 1, 2017, and input from state and local port stakeholders, and taking into account previously reviewed expansion projects, I recommend to the Federal Energy Regulatory Commission that the waterway in its current state be considered suitable for LNG marine traffic associated with the proposed project."

In their Removal Fill Application to OR DSL, JCEP states that there will be a 1% - 2% increase in LNG export from the straightening of the navigation channel. This certainly does not satisfy a public need that outweighs harm to navigation, fishing, and recreation as stated in ORS 196.600 to 196.905. It is meant specifically to increase JCEP profits 1% - 2%.

The dredging will cause definite harms to Coos Bay and local residents who live work and recreate around the Bay and navigation channel. As stated in their Removal Fill Application, JCEP also states that there will be 600,000 - 750,000 cy of dredged materials deposited on the Apco 1 and 2 sites. Whether or not they can deposit these spoils is contingent upon slope stability, management of discharge positions and rates to ensure water quality standards, and other factors. They do not state how they will meet these contingencies and have made no assurances of how they will guarantee the stability of these massive piles of spoils. And what will be the composition of these spoils? JCEP has stated that they are required to test them but have not stated how. From years of industry and

inadequate conservation along the channel, there are deposits of heavy metals and toxic contaminants, including high levels of arsenic in the bottom of the channel. Will these be safe to deposit on Apco 1 and 2, and what if the spoils are proven to be beyond acceptable limits of toxicity, what will they do with them? Until they know the make-up of these spoils, how will they know whether the proposed fill or removal conforms to sound policies of conservation and would not interfere with public health and safety as required by OR Dept. of State Lands? Is it then too late?

From JCEP's Removal Fill Application, 6.0, p 59.... Periodic maintenance will occur every 3 years for the first 10 years and every 5 years thereafter. This will result in 115,000 cy of spoils every 3 years and 160,000 cy every 5 years after that. This will create a constant re-silting problem that will cause damage to oyster beds, crab larvae, salmon fry, steelhead, and green sturgeon, among other species. Coos Bay is dependent on these resources to bring millions of dollars into our local economy. Our Coho salmon are critically endangered, which is admitted in the JCEP application along with 8 other species that they do not name, steelhead, green sturgeon, and water fowl among them as listed by the USFWS. Also, the subsurface blasting that will be necessary for the rock ledges at dredge sites 1 and 2 will be detrimental to numerous species of fish through barotrauma, which ruptures the inner ear and leads to immediate or delayed mortality.

How will all of the noise from the blasting, dredging, and pile driving affect residents and tourists who frequent the bay and navigation channel? It will drive people away from the North Spit and Empire campgrounds to seek quiet elsewhere. It will also make those areas of the channel inaccessible for fishing, clamming, wind surfing, paddle boarding, etc. which are a part of everyday life for locals and a great attraction for tourists. In 2017 Coos County brought in \$271 million from tourism. This amount increases by 3 to 4 million dollars every year. This is far greater than JCEP will ever provide to our residents, and we can't afford to lose it.

In section 7 of its application, JCEP provides the analysis for Goal 16 exceptions for water dependent development. This requires an economic analysis that shows that the proposed use will be located in the planning area and satisfies other economic criteria. JCEP has not provided that analysis and thus, has not met that requirement. Even if it had provided that analysis, it is doubtful that there would have been factual evidence proving that: 1) Minimizing delay is a current pressing need. 2) There is a realistic business venture or need to export other products to Asia. 3) There is a need for "slightly larger" ships to service that market demand. 4) The transit time delays are "jeopardizing success for maritime commerce in Coos Bay". All this, when dealing with 5 ships/month using the channel from our Coos Bay Pilot. and 5) "terminal businesses ...require assurances that terminals can accommodate...larger bulk carriers in future." JCEP's Exhibit 2 produces insufficient evidence of any pressing need and falls short of those 5 conclusions. JCEP also does not even attempt to quantify any economic benefit increases from Asian markets, especially after weighing these against the current economic gains that are reaped from the conservation and natural management units that will be destroyed by widening the channel.

The Goal 9 and 12 demonstrated need must be based solely on JCEP's proposed use of the channel, and the economic need is not demonstrated. Coos County should not be forced to risk the destruction of its estuary, the natural resources found within it, and the recreational activities enjoyed by so many, so that JCEP can "optimize design production" of its LNG terminal. There is no economic benefit to the county. In Feb. 2018, Coos Bay was featured in Sunset Magazine as a destination area

on the Oregon coast for the beauty of its coast, bay, dunes and the recreation provided by these. Take away clamming, fishing, crabbing, exploring the estuary, and a view of magnificent dunes and the Pacific. Replace it with a pipeline, liquifaction trains, fouled water, emissions of methane, sulfuric and nitric acid, and restricted water and estuary access, and Sunset Magazine will no longer find reason to come here.

Estuaries are considered to be the the most biologically productive ecosystems on earth by scientists and knowledgeable persons. However, JCEP in their application continually infers or refers to the area that will be affected by their project as of relatively low value. The Dungeness crab industry in Coos Bay accounts for \$30 million of our local economy. Our estuary is the place where tens of millions of crab larvae begin their development and proceed to maturity in about three years time. This maturation process cannot take place without the estuary. JCEP's navigation channel proposal will alter approximately 22 acres of subtidal habitat, and an additional 20 acres will be dredged from the shore of the estuary for the ship berthing area. This area is a significant part of what is only about 100 acres of estuary in the whole state of Oregon. This will be totally devastating to the whole ecosystem that relies on estuarine resources for survival, and how will this affect our Dungeness crab harvest? How has JCEP attempted to mitigate this loss? I'm highly doubtful that anything they may suggest will make up for this economic loss. Also, what about the sand shrimp industry that provides income for many bait fishermen. They are highly sought after for bait by locals and tourists alike and will be destroyed in the dredged and filled areas near the JCEP facility.

Another very important area of loss due to the dredging will be several eelgrass ecosystems. This is particularly important in that there has been a significant reduction in eelgrass habitat locally along with an almost complete disappearance in the South Slough estuary. Eelgrass is a vitally important habitat for many marine species including fish, mollusks, and crustaceans. Each year at full moon in late January a massive number of herring come to spawn in the eelgrass beds in the estuary. Their eggs by the millions adhere to the grass spikes. The herring provide abundant feeding for birds, seals, and sea lions. The eggs provide abundant food for a myriad of bird species. There are two large areas of eelgrass near NRI points 1 and 2. These areas contain rock formations that will have to be blasted prior to dredging, and the blasting/dredging will have to take place from October to May. What will happen to these areas and all of the species that depend upon them? There is no way to mitigate this loss.

There is also another important eelgrass habitat near the Apco 2 site. It will be crossed by the temporary dredge line delivering spoils to Apco 2. JCEP does not address any impacts to this area. It only states that "to minimize impacts, the pipeline will be floated on a temporary steel cradle spanning above the eelgrass beds which will be supported by 5 or 6 steel pipe piles." They give no consideration to the fact that these pilings will cause scour that will result in a loss of eelgrass. This is one more area of the navigation channel that JCEP will be unable to adequately mitigate. It will actually be impossible because there are no other areas of eelgrass along the pipeline. This will be an irretrievable loss to the Coos Bay estuary.

There are also other problems that JCEP has not addressed in their application. The changes in the depth of the navigation channel will be detrimental to water fowl that rely on diving for vegetation and invertebrates. The increased flow of water will also affect the salinity of the bay. The blasting of the rock ledges will affect so much of the bottom of the channel, and this will not be a temporary

effect. It will be permanent.

Until JCEP provide workable answers to these problems and suitable mitigation to the habitat and ecosystems that they will destroy, I respectfully request that you deny this application.

Thank you for your consideration,

Natalie Ranker