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A November 24, 2013 letter submitted to the Oregon Governor has additional details as to why the Jordan Cove Project is not in the Public Interest which should also be reviewed by FERC. (See Exhibit 21)

CO39-28
Cont'd

AFFECTED ENVIRONMENT

This Section is completely missing from the Draft EIS making the Environmental analysis and impact assessment completely inadequate. Without a baseline to know where the environment is at currently the Jordan Cove project's true impacts from the additional environmental damage it would create cannot be measured.

CO39-29

ALTERNATIVES

NEPA regulations state that the alternatives section of the EIS should present the environmental impacts of the proposal and the alternatives in comparative form (emphasis provided) thus sharply defining the issues. The Alternatives Section should rigorously explore and objectively evaluate all reasonable alternatives, and devote the same level of analysis to each alternative including the proposed action so that reviewers may evaluate their comparative merits. The range of reasonable alternatives should include those not within the jurisdiction of the lead agency.³³

Draft EIS page 3-6

"We do not consider any of the proposed LNG export terminals on the East Coast or Gulf Coast to be reasonable or practicable alternatives to the Jordan Cove proposal, because they would not meet the main objectives of the Project. Jordan Cove seeks to be the first LNG export terminal on the West Coast of the continental U.S., with the goal of serving markets around the Pacific Rim."

Draft EIS Page 3-11

After reviewing these data, the FERC was unable to identify any other alternative port location on the Northwest Pacific Coast that could meet the objectives of the Jordan Cove Project and that would have significant environmental advantages over Coos Bay.

4. The Draft EIS does not include a proper and complete Analysis of ALL Alternatives to the Jordan Cove project

CO39-30

Where is the in-depth analysis for each of these Alternatives?

³³ 40 CFR 1502.14.

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- CO39-29 The affected environmental and current conditions for all resources are discussed at considerable length for each resource in Chapter 4, as explained in section 4.0 (page 4-1) of the DEIS.
- CO39-30 Alternatives are considered in Chapter 3. See the introduction to that chapter for a discussion of how FERC addresses alternatives.

WEST COAST LNG ALTERNATIVE EXPORT PROJECTS:

West Coast "Existing" LNG Import/Export Terminals:

- Baja California, MX: 1.0 Bcf/d, (Sempra - Energia Costa Azul)
- Kenai Alaska - ConocoPhillips LNG Export Plant - The mothballed plant recently was give authority to start exporting again.

West Coast "Approved" LNG Import/Export Terminals

- Manzanillo, MX: 0.5 Bcf/d (KMS GNL de Manzanillo) [Approved - Under Construction]
- Baja California, MX: 1.5 Bcf/d (Sempra - Energia Costa Azul - Expansion) [Approved - Not Under Construction yet]

West Coast "Proposed" LNG Export Terminals – U.S.

- Coos Bay, OR: 0.8 - 1.2 Bcf/d (Jordan Cove Energy Project) - Fort Chicago LNG II U.S.L.P., a Delaware limited partnership (Canadian) owns seventy-five percent. Energy Projects Development L.L.C., a Colorado limited liability company, owns twenty-five percent. (These ownership percentages change from time to time.)
- Astoria, OR: 1.25 - 1.5 Bcf/d (Oregon LNG) - LNG Development Company, LLC. d/b/a Oregon LNG, Warrenton, Ore
- Alaska Gasline Port Authority: 2.0 - 2.4 Bcf/d (Pipeline Capacity 3 – 3.5 Bcf/d); LNG Export Terminal development partnership between the State of Alaska, ExxonMobil, ConocoPhillips, BP and TransCanada.
- Sacramento, CA (CAL LNG Inc.) Joint venture between Australian Oil Company Limited (ASX: AOC) (42%), Xstate Resources Limited (18%) and private oil and gas company Blue Sky E&P Holdings Ltd (40%). Blue Sky is an Indonesian-focused offshore oil producer working with Indonesian state-owned oil company, Pertamina and producing over 2,000 BOPD.³¹

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West Coast Canadian LNG Export Projects "Approved" by the National Energy Board (NEB):

<http://www.neb-one.gc.ca/elf-nsi/rthnb/ppletnsbfrthnb/lngsprtencppletns/lngsprtencppletns-eng.html>

- Kitimat LNG project (KM LNG) (07-1.3 Bcf/d) Operating General Partnership developed by Chevron (50%) and Apache (50%).
- BC LNG Export Co-operative (2.4 Bcf/d)
- LNG Canada Development Inc. (3.23 Bcf/d) Led by Shell (40%), Mitsubishi (20%), KOGAS (20%) and Petrochina (20%). Located in the Kitimat district.
- Pacific Northwest LNG Ltd. (2.6 Bcf/d) Brunei bought a 3% interest in the project led by Petronas (87%) and Japex (10%).
- West Coast Canada LNG (WCC LNG Ltd) (3.9 Bcf/d) Led by Exxon and Imperial Oil.

³¹ "California Producer, Farmers Considering West Coast LNG Terminal," Joe Fisher, Daily GPI / LNG, Dec 4, 2014 <http://www.mineralsintel.com/articles/100626-california-producer-partners-considering-west-coast-lng-terminal>

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- **Prince Rupert LNG Exports Limited.** (2.8 Bcf/d) Led by BG Group. Located on Ridley Island.
- **Woodfire LNG Export Pte. Ltd.** (0.30 Bcf/d)
- **Jordan Cove Energy Project L.P.** (1.55 Bcf/d) Natural gas crosses the Canada/U.S. border via existing natural gas pipelines near Kingsgate, British Columbia and near Huntingdon, British Columbia. Project approved by NEB (license not issued)
- **Triton LNG Limited Partnership** (0.32 Bcf/d) Located near either Kitimat or Prince Rupert, British Columbia.
- **Aurora Liquefied Natural Gas Ltd.** (3.11 Bcf/d) Terminal to be located in the vicinity of Prince Rupert, British Columbia.
- **Oregon LNG Marketing Company LLC.** (1.30 Bcf/d) Natural gas crosses the Canada/U.S. border via existing natural gas pipelines near Kingsgate and Huntingdon, British Columbia. Project approved by NEB (license not issued)
- **Woodside Energy Holdings Pty Ltd.**

Additional Canadian LNG Export Projects currently Before the NEB:

- Pieridae Energy Ltd - Application Incomplete
- Kitsault Energy Ltd - Application being processed
- Pieridae Energy Ltd - Application Incomplete
- Canada Stewart Energy Group Ltd - Application Incomplete
- WesPac Midstream-Vancouver LLC - Application being processed
- Steelhead LNG (A) Inc. - Application being processed
- Steelhead LNG (B) Inc. - Application being processed
- Steelhead LNG (C) Inc. - Application being processed
- Steelhead LNG (D) Inc. - Application being processed
- Steelhead LNG (E) Inc. - Application being processed
- Quicksilver Resources Canada Inc. - Application being processed
- Cedar 1 LNG Export Ltd - Application being processed
- Cedar 2 LNG Export Ltd - Application being processed
- Cedar 3 LNG Export Ltd - Application being processed
- Orca LNG Ltd - Application being processed
- GNL Québec Inc. - Application being processed
- Pieridae Energy (Canada) Ltd - Application being processed
- Bear Head LNG Corporation - Application being processed

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● NewTimes Energy Ltd has filed an application with the Canadian National Energy Board for a 25-year license to export 12 million tonnes/year (586 Bcf) of LNG from a proposed floating LNG terminal facility near Prince Rupert, British Columbia as reported by Sutherland LNG Law Blog on 2-12-2015.⁵²

And this does not even begin to address all the U.S. Gulf Coast and Eastern proposed LNG terminals that are in the works or in some cases already approved, under construction and/or in operation. Neither does it address projects in the international market. The

⁵² <http://www.lnglawblog.com/2015/02/newtimes-energy-files-application-to-export-lng-from-b-c/>

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GIGNL (International Group of Liquefied Natural Gas Importers) showed in their 2013 LNG Report that the aggregate nominal capacity of all liquefaction plants reached 286 mmtpa, compared with a worldwide LNG consumption of 236.9 mmtpa.³³ Jordan Cove was not mentioned in the report but the report stated that in British Columbia, five major LNG export projects - all sourced from unconventional gas - had been granted export licenses by the NEB (National Energy Board) - Kitimat LNG project, LNG Canada project, Prince Rupert project, Pacific Northwest LNG and West Coast Canada LNG. U.S. Projects were listed as Sabine Pass, Freeport, Lake Charles, Cove Point and Cameron LNG.

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PROPOSED ALTERNATIVE PIPELINE ROUTES

The following Alternative Pipeline Routes were uploaded to the FERC during scoping under the following reference link http://elibrary.ferc.gov/admws/file_list.asp?accession_num_20121030-5040 but these route alternatives have not been analyzed in the FERC Draft EIS.

Exhibit E: Presentation Given to the 2010 NWPPA Engineering & Operations Conference, April 1, 2010 – Power Point Slide #17

Exhibit G: Weyerhaeuser Millicoma Tree Farm Hunting Map 1987 - 1988

Exhibit H: Alternative Pacific Connector Pipeline Route – Version #1 (Weyco)

Exhibit I: Alternative Pacific Connector Pipeline Route – Version #2 (Weyco)

Exhibit J: Alternative Pacific Connector Pipeline Route – Version #3 (Weyco)

Exhibit K: Alternative Pacific Connector Pipeline Route – Version #4 (Southern Oregon)

Exhibit L: Alternative Jordan Cove Export Facility Siting / Pacific Connector Pipeline Route – Version #5 (Out of State)

CO39-31

The Draft EIS is flawed because all THESE VIABLE LNG EXPORT TERMINALS AND PIPELINE ROUTES WERE NOT CONSIDERED IN THE ANALYSIS OF ALTERNATIVES.

A study done in Canada concerning the 5 billion dollar Enbridge pipeline³⁴ found that an alternative \$5 billion investment in green jobs and industries would create between 3 and 34 times the number of direct jobs as the Enbridge pipeline. This could also be the case with the Jordan Cove / Pacific Connector project. The Canadian study also found that Enbridge's claims about employment gains were grossly overstated, and were based on modeling that makes many unjustified assumptions. The same could also be said about Jordan Cove's economic studies which determined large employment gains based on ECONorthwest modeling.

CO39-32

³³ *The LNG Industry – 2013*; GIGNL (International Group of Liquefied Natural Gas Importers); Page 16 http://www.gignl.org/sites/default/files/PIB%20IC_AR%20Publications/gignl_the_lng_industry_tv.pdf

³⁴ *CCPA - Enbridge Pipe Dreams and Nightmares - The Economic Costs and Benefits of the Proposed Northern Gateway Pipeline*; By Marc Lee; March 2012

<http://www.policyalternatives.ca/sites/default/files/downloads/publications/BC%2001/ce201203/CCPA-BC-Enbridge-Pipe-Dreams-2012.pdf>

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CO39-31 The EIS considers many alternate routes in Chapter 3 including a straight route between Malin and the Jordan Cove site, an all highway alternative, a route entirely on federal land, the Round Top Butte route, and a West-Wide Corridor route. It also considered following existing pipelines and many route variations to the proposed route. It also considered alternative sites for the terminal. An EIS is not required to consider every possible route, just a reasonable range of alternatives.

CO39-32 Comment noted.

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and not on substantive documentable data. A September 12, 2012 comment to the U.S. DOE submitted to FERC during scoping previously explained some of these issues.³⁵

CO39-37
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In 2002 ECONorthwest consultants determined that the Coos County 12-inch pipeline would create over 2,900 jobs in the Coos Bay area. Those predicted jobs never materialized and in fact the Coos Bay area saw a marked decrease in jobs, the exact opposite of what the ECONorthwest study had predicted (modeled) would be the case:

Nov 2002 Coos County Pipeline (EIS):

*"Through the use of the IMPLAN model, ECONorthwest estimates that because of the dynamic efficiency effect, total employment in the Coos Bay area would be over 2,900 jobs higher ten years after natural gas is introduced."*³⁶

Jordan Cove's economic studies have also not included job losses that would be a result of the proposed project should it proceed. The impacts from the proposed Pacific Connector pipeline digging an 8 foot by 3 foot trench for 2.4 miles up the ecologically sensitive Haynes Inlet could, and most likely would, cost us jobs in our oyster and fishing industries. This could end up being as many permanent jobs as Jordan Cove is predicting they would create. The problem is, no one is looking at these negative impacts. Lilli Clausen of Clausen Oysters expressed some of these concerns in a Motion to Intervene that she filed on Oct 15, 2014.³⁷ Attached find additional concerns of the Coos Bay Oyster Company (See *Exhibit 22*) that are also NOT BEING ADDRESSED IN THE Draft EIS. **Alternative pipeline routes that would "not" have impacted the Coos Estuary were never analyzed or considered by the FERC as explained above.**

CO39-33

CO39-34

The Canadian study mentioned above concluded:

"An alternative path lies in green investments in areas like energy efficiency, renewable energy sources, public transit, waste reduction and management, and in protecting existing jobs that rely on healthy watersheds and coastlines in the impacted region. Paying for these investments through a carbon tax or increased corporate taxes, or oil and gas royalties, would create more employment opportunities, while removing dependence on fossil fuels for domestic energy and reducing greenhouse gases.

*Such a shift would, of course, require a very different kind of leadership on the part of the federal and provincial governments to make the transition to a sustainable economy a matter of national and provincial urgency. It would elevate climate action from something to be ignored to a national industrial and employment strategy. **In the meantime, stopping a pipeline that further locks Canada onto a path of resource extraction and climate disruption is a sensible step toward that goal.**"*

CO39-35

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CO39-33 Potential impacts to commercial oyster beds are discussed in Section 4.6, and would be limited to potential short-term turbidity near the 0.3 mile section of the pipeline route where commercial beds are adjacent. Pacific Connector has proposed an Olympia Oyster Mitigation Plan that would result in no net substantial adverse effects to commercial oysters from project actions. Project activities are not expected to reduce oyster or fishing employment opportunities.

CO39-34 See Chapter 3 for a discussion or other terminal locations. Note that building a terminal and an associated pipeline in another location would simply shift the effects to other locations, property owners, and resources.

CO39-35 It is outside the scope of this FERC EIS to assess the overall energy policy of the nation. Furthermore, management and jurisdiction over the national energy policy is the role of the U.S. Department of Energy, not the FERC.

³⁵ CALING/McCallFree scoping comment filed on Oct 29, 2015, Item 3, Sept 12, 2012, Comment to U.S. DOE regarding ECONorthwest - http://elibrary.ferc.gov/dmws/file_list.asp?accession_num=20121029-5079

³⁶ https://archive.org/stream/cooscountynatural/Sumit/cooscountynatural/Sumit_djvu.txt

³⁷ Clausen Oyster/ Lilli Clausen FERC Motion to Intervene Out of Time Oct 15, 2014: http://elibrary.ferc.gov/dmws/file_list.asp?accession_num=20141015-5087

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The same could be said concerning the Jordan Cove project.

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RENEWABLE ENERGY OPTIONS AND ALTERNATIVES

Viable Renewable Energy Options to the project were not considered in the Draft EIS. FERC needs to review the following attached exhibits:

Exhibit 23: How to Achieve 100% Renewable Energy – World Future Council Policy Handbook. September 2014

Exhibit 24: Powering Up Oregon - A Report on the Economic Benefits of Renewable Electricity Development - January 2015

CO39-36

Exhibit 25: A Green Industrial Revolution – Climate Justice, Green Jobs and Sustainable Production in Canada By Marc Lee and Amanda Card – Canadian Centre for Policy Alternatives – June 2012

Exhibit 26: Enbridge Pipe Dreams and Nightmares - The Economic Costs and Benefits of the Proposed Northern Gateway Pipeline By Marc Lee - Canadian Centre for Policy Alternatives – March 2012

SHALE GAS DEVELOPMENT IN OTHER COUNTRIES

Other countries are developing their own Shale Gas Reserves and this was not considered in the Draft EIS analysis.

Bloomberg

U.S. to Cap LNG Exports to Boost Economy, Shell's Voser Says

By Will Kennedy - Jan 25, 2013 ;

...*"Exports will happen," said Voser, 54, whose company is the world's largest LNG supplier. "But I hope that the U.S. will actually keep most of the gas back because it will help them to industrialize parts of the U.S. more."*

CO39-37

...*Elsewhere in the world, Shell is optimistic about prospects for shale gas production in China and Ukraine. The company signed a production agreement with the eastern European country yesterday.*

*"In China, it is very encouraging what we find," Voser said. Shell is exploring for shale gas with China National Petroleum Corp. "If you just look at the reserves it could outnumber the U.S."*⁴³³ (Emphasis added)

⁴³³ <http://www.bloomberg.com/news/2013-01-25/u-s-will-cap-lng-shipments-to-boost-economy-said-shell-voser-says.html>

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CO39-36 Renewable energy options are discussed in section 3.1.4 of the EIS. Because the Project's purpose is to prepare natural gas for export to foreign and domestic markets, the development or use renewable energy technology would not be a reasonable alternative to the proposed action.

CO39-37 Decisions regarding the energy policy of the U.S. or other nations, as well as the energy reserves in other nations are outside the scope of the FERC's jurisdiction. Decisions regarding the U.S. energy reserves (e.g., whether or not to export gas) are the jurisdiction of the U.S. Department of Energy. Decisions regarding foreign energy reserves are the jurisdiction of those nations. It is outside the scope of this EIS to assess the overall U.S. energy policy or the policies and energy reserves of other nations.

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CO39-38 Socioeconomic impacts are assessed in Section 4.9. A No Action Alternative is considered in Chapter 3.

The Eugene Register Guard
IN THE PIPELINE? Proposed Coos Bay natural gas terminal remains up in the air
By Winston Ross / The Register-Guard – April 8, 2012

"...So, will it happen? The proposed Coos County import terminal has some tactical advantages over facilities on the Gulf Coast in its proximity to Asia, but it faces competition with a terminal in Kitimat, B.C., that won approval in October to export gas

"Western Canada has a big advantage over Coos Bay," Pursell said. "I'd be shocked if your facility got built."

Braddock says he can get gas to Asia just as cheaply as Kitimat, but he's much farther behind. He also said there are far more abundant supplies of natural gas in other countries, but that they haven't developed the technology — yet — to tap into it.

"What we have is a head start in the technology, and they will get it, too, no question," Braddock said. "If no export facilities are built within the next seven or eight years, export facilities will probably never be built."⁵⁹ ... (Emphasis added)

GAS USED FOR U.S. MANUFACTURING AND FOR AMERICAN CONSUMERS

FERC has not analyzed fully the job comparison between low energy costs at home in America and its impact on manufacturing and American consumers and industries versus the Jordan Cove Energy Project?

CO39-38

**FAULTY MITIGATION PLANS
FALSE / MISLEADING PROJECT DATA**

JORDAN COVE'S EXPORT PLANS TO EXPORT GAS TO ALASKA AND HAWAII

Alaska

On January 11, 2015 the Alaska Dispatch News reported that Alaska's massive LNG Export venture was moving forward despite collapsing oil prices which have delayed other projects.⁶⁰ Falling oil and gas prices hasn't stopped Alaska's massive LNG venture in part because of its size, projected timelines and a partnership involving some of the world's largest companies. The supersized megaproject involves the state, Exxon, BP and ConocoPhillips as equity partners. On February 15, 2013, executives from ExxonMobil, BP, ConocoPhillips and TransCanada had submitted a letter to Alaska Governor Sean Parnell outlining the concept for the Alaska LNG project and related pipeline. The facility would be located on the North

⁵⁹ <http://www.registerguard.com/web/business/2786862941/gas-braddock-natural-terminal-energy.html>

⁶⁰ "Despite falling oil and gas prices, Alaska LNG project on track" by Alex DeMarban - Alaska Dispatch News, January 11, 2015. <http://www.adn.com/article/20150111/despite-falling-oil-and-gas-prices-alaska-lng-project-track>

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CO39-39 Any company wishing to transport LNG would have to do so in accordance with all laws, including the Jones Act.

Slope near Prudhoe Bay and would receive approximately 3 - 3.5 Bcf/d of natural gas and produce 15 - 18 million tonnes per annum (MTPA) of LNG.

On December 18, 2014, the Sutherland LNG Law Blog reported that the [Alaska Journal of Commerce](#) had reported that the Alaska Industrial Development Authority had agreed to increase from \$240,000 to \$440,000 its share of expenditures for feasibility studies for a proposed 1 to 1.5 million tons-per-year LNG export terminal being developed by [Resources Energy Inc.](#) (REI) at Port MacKenzie, near Anchorage. REI is a consortium of Japanese companies.⁶¹

On April 14, 2014, ConocoPhillips Alaska Natural Gas Corporation (ConocoPhillips) announced that it had received authorization from the United States Department of Energy (DOE) to export liquefied natural gas over a two-year period to Free Trade Agreement (FTA) countries and non-FTA countries, and had plans to resume exports of LNG in the spring.⁶²

Hawaii

Despite the fact that the Jordan Cove Energy Project listed Hawaii as a potential receiver of their LNG exported gas, The Gas Company, LLC, submitted to FERC on August 9th an application⁶³ to import LNG via a fleet of up to 20 40-foot cryogenic intermodal containers (also known as "ISO" containers).⁶⁴ These "ISO" containers would be transported to Hawaii on common carrier cargo vessels utilizing already existing industries and infrastructure. The company anticipates that it will utilize port facilities on the West Coast, such as the ports of Los Angeles and Long Beach, California. The company could potentially also utilize ports on the U.S. Gulf Coast. It would seem that using already existing infrastructure and industries would be far less environmentally impacting and more economical than building additional pipelines and LNG terminals. A properly completed Economic and Environmental Programmatic Analysis would have brought this option to light and is another example as to why it is essential that this type of analysis be completed first before the DOE and FERC make any further decisions with regard to LNG exports.

CO39-39

How does Veresen intend to transport LNG product to Alaska and Hawaii, both of which are still US states, when the law of almost 100 years known as the Jones Act requires that all goods (and LNG is a good) transported between US ports, by water, be carried on US flag ships, constructed in the US, owned by US citizens, crewed by US citizens and US permanent residents. I am unable to locate one such an LNG vessel available for Veresen's Hawaii and Alaska routes that meets the Jones Act provisions and would like this issue addressed in the Final EIS.

Obviously Jordan Cove will not be exporting LNG to Alaska or Hawaii.

⁶¹ <http://www.trialawblog.com/2014/12/alaska-commits-more-funds-to-port-mackenzie-lng-export-terminal/>

⁶² [ConocoPhillips Announces Resumption of Exports from the Kenai LNG Facility - April 14, 2014](http://www.conocophillips.com/newsroom/news-releases/Pages/Kenai-LNG-Plant-to-Resume-Exports-This-Spring.aspx)
<http://alaska.conocophillips.com/newsroom/news-releases/Pages/Kenai-LNG-Plant-to-Resume-Exports-This-Spring.aspx>

⁶³ Application to FERC by The Gas Company, LLC, out of Hawaii for Authorization under Section 3 of the Natural Gas Act; August 9, 2012. http://elibrary.FERC.gov/dnws/file_list.asp?accession_num=20120809-5100

⁶⁴ ISO is an international organization for standardization which establishes standards for the construction of these containers. ISO-certified intermodal containers are bulk transport units designed to be shipped from one mode of transportation to another (e.g., from truck to ship) or from one location to another.

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JORDAN COVE'S EXPORT TERMINAL EXPANSION PLANS

5. Jordan Cove's operational plans to immediately expand their facility should have been included in all of Jordan Cove's permit application analysis.

Don Althoff, Veresen's president and CEO, stated the following in a March 28, 2014, interview: (See Exhibit 27)

If and when Jordan Cove begins construction, Althoff said Veresen will immediately look into expanding the facility's capacity to 9 million metric tons per year.

"The marina, tankage, gas treating and power plant can all manage 9 tonnes per annum (metric tons per year)," he said. "What's needed to expand the plant is more pressure on the pipeline and more trains. It does have the ability to expand.

"I think as soon as I can get this thing through FID (final investment decision) we will start to look at expansion projects down there."⁶⁵

The article goes on to say that Veresen plans to wrap up binding Liquefaction Tolling Service Agreements and Pipeline Service Agreements by the fall of 2014 and make a "final investment decision" in early 2015. This expansion was NOT CONSIDERED in any of the Conditional Land Use permits or in FERC's EIS analysis or in other permit processes. The Application that Jordan Cove submitted to the National Energy Board in Canada explains in detail Veresen's plans to expand their facility and add two more liquefaction trains so they will be able to export 1.55 bcf/d in their third year of operation.

CO39-40

The application Jordan Cove LNG L.P. submitted to the Canadian National Energy Board authorizing the export of gas from Canada, states on page 4: (See Exhibits 28 through 33)

III. GAS SUPPLY

14. At full build out, the Project will be capable of producing 9 ADM/y of LNG for export. In order to produce that amount of LNG, the Applicant, through its customers, will be required to export no less than 565.75 Bcf/y or 1.55 Bcf/d through the Export Points.⁶⁶

Jordan Cove's Appendix B that was supplied to the Canadian NEB clearly shows the projected volumes they plan to export increasing to 1.55 bcf/d by their third year of operation (See Exhibit 31)

⁶⁵ MONEY STARTS FLOWING - Jordan Cove parent company looks at financing, ownership options, expansion March 28, 2014, By Chelsea Davis, The World: http://theworldlink.com/news/local/govt-and-politics/jordan-cove-parent-company-looks-at-financing-ownership-options-expansion/article_5fe99ec-6521-11e3-9421-001a4bc837a.html

⁶⁶ Jordan Cove LNG L.P. - Application to NEB for Licence to Export Gas from Canada (A53974) - September 09 2013 - https://docs.neb-one.gc.ca/ll-eng/llisapi.dll?une_ll&objid=1035482&objAction=browse&viewType=1

CO39-40 It the Project is approved, only the facilities addresses in this EIS could be built. If Jordan Cove proposes to expand the terminal, it would have to submit a new application, which would require additional NEPA analysis.

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On February 20, 2014, the Canadian NEB gave Jordan Cove LNG a licence for 25 years, starting on the date of the first export of gas, for an annual volume of 16.03 billion cubic metres (10^9 m^3) of natural gas, which corresponds to a natural gas equivalent of 1.55 billion cubic feet per day (Bcf/d) with the maximum annual quantity that may be exported in any 12-month period, including 15 per cent tolerance, not to exceed $18.43 \cdot 10^9 \text{ m}^3$, with a maximum term quantity of $442.68 \cdot 10^9 \text{ m}^3$ over the term of the licence.⁶⁷

CO39-40

On March 18, 2014, the U.S. Department of Energy issued Order No. 3412 to Jordan Cove for long-term authority to import 1.55 Bcf/d of natural gas by pipeline from Canada (FE Docket No. 13-141-NG)⁶⁸.

So why isn't this ALREADY PLANNED AND IN SOME CASES APPROVED EXPANSION of the Jordan Cove Energy Project LNG Export facility included as a part of the project's impacts in the Draft EIS analysis? Considering the impact of the increased pollution and green house gases, this would directly impact the environment. Even as recent as Jan 15, 2015 the Jordan Cove Energy Project once again provided misleading data about their project by not including their planned facilities expansion.⁶⁹ For the Jordan Cove Energy Project to continue to be dishonest about this issue and to mislead Rocky Mountain Basin gas producers into their thinking Jordan Cove would be able to export their gas IN ADDITION TO EXPORTING 1.55 BCF/D OF CANADIAN GAS is not acceptable. We need to have all the true facts about the proposed Jordan Cove LNG export project on the table here during this NEPA review.

CO39-41

SOUTH DUNES POWER PLANT

As explained above Jordan Cove filed a Coos County Land Use Application for their South Dunes Power Plant and Gas Processing facility (Coos County File No. SP-12-02). The Application was appealed and re-approved multiple times and eventually had two (2) public Hearings, one on standing (June 13, 2013) and one on the merits (August 20, 2013). On November 14, 2013, JCEP formally withdrew its application for design and site plan review for the project known as the South Dunes Power Plant (SDPP) just before the Hearings Officers decision came down. (See Exhibit 4)

CO39-42

During the course of that proceeding, Jordan Cove's attorneys and consultants (SHN Consulting Engineers & Geologist, Inc. and Black and Veatch), SUBMITTED FALSE AND MISLEADING DATA INTO THAT RECORD in their attempt to meet the permit's criteria.

⁶⁷ Feb 20, 2014, National Energy Board - Jordan Cove LNG L.P. Letter Decision (A58981) <https://docs.neb-one.gc.ca/lcno/lisapi.dll/Fine-11&objid=2423890&objAction=Browse&objType=1>

⁶⁸ March 18, 2014, U.S. DOE Order No. 3412 and FE Docket for: Jordan Cove LNG L.P. Application for long-term authority to import 1.55 Bcf/d of natural gas by pipeline from Canada (FE Docket No. 13-141-NG) http://www.fossil.energy.gov/programs/gasregulation/authorizations/2013_applications/Jordan_Cove_LNG_L_P_13-141-NG.html

⁶⁹ On 1/5/2015, the following Filing was submitted to the Federal Energy Regulatory Commission (FERC), Washington D.C.: Description: Supplemental Information: Request of Jordan Cove Energy Project, L.P. under CP13-483 http://elibrary.FERC.gov/dmws/file_location/session_num=20150113-5247

42 | P a g e | N O . M a n a g e m e n t P l a n 2 0 1 3 - 2 0 1 5 F o r t h e J o r d a n C o v e E n e r g y P r o j e c t C o m m e n t s

CO39 Continued, page 42 of 61

- CO39-41 The EIS addressed the application submitted to FERC. Any expansion would need additional NEPA analysis.
- CO39-42 The South Dunes Power Plant is seeking approval by the State, it is not under FERC's jurisdiction.

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CO39 Continued, page 43 of 61

Jordan Cove had stated from the beginning that they were seeking approval for their proposed South Dunes Power Plant and Gas Processing facility (SDPP) in the IND (industrial) zone in Coos County. This clearly was not the case from the beginning as the project also encroached into the 7-D shoreline boundary zoning district even when considering the County's newly revised shoreline boundary maps that surfaced in November/December 2012.

Jordan Cove's September 3, 2013 submittal from their consultant SHN Consulting Engineers & Geologist, Inc. (See Exhibit 34) was also very disconcerting as it included several maps and diagrams, one from Black and Veatch, that contained false information about the project. These maps and diagrams indicated that none of the proposed South Dunes Power Plant and Gas Processing Facility structures exceeded 100 feet. This was despite Jordan Cove having filed with the FAA, two months prior to this submittal, 35 work-in-progress applications for the Jordan Cove project for structures that ALL EXCEEDED 100 FEET, with several being 200 feet or higher in height. (See Exhibit 35) Black and Veatch and SHN Consulting Engineers & Geologist, Inc. are doing a lot of the Consulting and Hazard Analysis work for Jordan Cove which should be very disconcerting and of great concern.

CO39-42 Cont'd

This shows the great lengths that Jordan Cove's project sponsors will go to try and obtain permits. In this particular case we were able to expose these false and misleading submittals (See Exhibit 36) and Jordan Cove eventually pulled their SDPP Coos County permit application. I am very concerned, however, about other permit processes where unsuspecting agency regulators may not fully understand how these guys operate. Jordan Cove should be providing accurate and factual data about its project not underhandedly trying to get permits by omitting and/or providing inaccurate data or by changing the rules so their project fits.

Perhaps one of the most disturbing documents provided in this Coos County permit process on the South Dunes Power Plant was in Jordan Cove's final arguments when they boldly stated that because the Coos County Zoning and Land Development Ordinance did not have an airport overlay for North Bend's Southwest Oregon Regional Airport, the airport surfaces and operation zones had NO APPLICABILITY and Jordan Cove did not have to consider them or the associated AIRPORT HAZARDS for planning purposes. (See Exhibit 37) The Draft EIS appears to not be considering these issues either.

CO39-43

Draft EIS page ES-6 states:

The portion of Coos Bay that would be dredged to create the access channel to the Jordan Cove terminal marine slip does not contain any contaminated sediments. Testing at the former Weyerhaeuser mill site indicated that concentrations of contaminants are below screening levels that would represent a risk to public health. The Oregon Department of Environmental Quality (ODEQ) recommended "No Further Action" at this location, and approved a closure plan. Jordan Cove would cover the former mill site with clean sediments from the marine slip and access channel to raise the elevation for the planned South Dunes Power Plant and associated facilities.

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No known contaminated sites would be crossed by the route for Pacific Connector's pipeline. Pacific Connector developed a Contaminated Substances Discovery Plan that specifies the measures that would be implemented if unanticipated contaminated soils are encountered.

Jordan Cove's proposed gas processing facility next to the South Dunes Power Plant would be built over an established mill landfill. In addition, the partial "PONSIF" that was issued by the DEQ was only for the first 6 inches of soil on the Ingram Yard property where Jordan Cove's land tanks will sit. Covering up the contaminated soils found buried deeper than 6 inches on the Ingram Yard property will not help this project or Jordan Cove. An independent investigation is warranted in this matter as the deeper soils and tidal muds in the path of the Pacific Connector have also NOT BEEN TESTED FOR ALL POTENTIAL CONTAMINANTS even though there were attempts by citizens to have these soils and tidal muds tested. See Exhibit 12 and the Oregon Clam Diggers Association comments filed in this proceeding.

CO39-44

Since the Slip dock dredged material that has been proposed to be fill for the South Dunes Power Plant and Gas Processing Facility is now suspected of being contaminated, this CLEARLY IS AN ISSUE THAT HAS NOT BEEN ADDRESSED PROPERLY IN THE DRAFT EIS.

LNG VESSELS

Export Draft EIS page 4-365/366

Jordan Cove expects its terminal to be visited by 90 LNG vessels per year. Each LNG vessel would discharge approximately 9.2 million gallons of ballast water during the loading cycle to compensate for 50 percent of the mass of LNG cargo loaded.⁷⁰

The 90 LNG vessels per year has been under calculated. The danger in all of this is that a number gets established, and then becomes pasted into various summaries, briefing notes and media reports, but few people go and check the math, or consider the assumptions and caveats associated with the number.

Not all the LNG cargo on a vessel is discharged at the receiving terminal. The tanks onboard the LNG carriers function as giant thermoses where the liquid will be kept cold during storage. No insulation is perfect, however, and so the liquid is constantly boiling during the voyage. According to World Gas Intelligence, on a typical voyage, an estimated 0.1% - 0.25% of the cargo converts to gas each day, depending on the efficiency of the insulation and the roughness of the voyage. In a typical 20-day voyage, anywhere from 2% - 6% of the total volume of LNG originally loaded can be lost.⁷⁰

CO39-45

In addition, a heel or small amount of LNG is left in the cargo tanks to keep the tanks cold via boil-off on the ballast voyage to the loading port. Keeping the tanks cold eliminates that

⁷⁰ http://en.wikipedia.org/wiki/LNG_carrier

CO39 Continued, page 44 of 61

CO39-44 See response to Comment CO34-15. See the supplemental information submitted by Jordan Cove Energy Project, L.P. under CP13-483-000 on Feb. 3, 2015. This Supplemental Information filing concerns JCEP's Ingram Yard Test Pile and Ground Improvement Project. It is comprised of a February 2, 2015 letter to JCEP from its contractor, SHN Consulting Engineers & Geologists, Inc. (SHN), and twelve attachments. The letter summarizes the chronology of activities for the test project, in particular as related to contaminated soils and a buried septic tank. This information will be included in the FEIS. On February 3, 2015, Jordan Cove filed the results of its 2014 geotechnical testing program at the Ingram Yard. We will analyze those results in section 4.3 of the FEIS. Additional contamination sampling would be conducted by the ODEQ that has no relationship with the Jordan Cove-Pacific Connector Project.

CO39-45 Ninety tankers per year is an estimate, it is based on the amount of LNG that proposed to be shipped. The actual number of tankers per year and the amount of LNG shipped is likely to vary by year and need.

necessity of cooling the cargo tanks before loading the next cargo and minimizes stress from repeated thermal cycling.⁷¹

According to the California State Land Commission (CSLC) (2006) Cabrillo Port LNG Deepwater Port Revised Draft EIR, p. 2-21:

"LNG carriers would have a capacity ranging from 36.5 to 55.5 million gallons (138,000 to 210,000 m³). Of this volume, an estimated 4 million gallons (15,100 m³) would be consumed by the carrier while in transit for fuel and for maintaining the cold tanks; the remaining 32.5 or 51.5 million gallons (123,000 or 195,000 m³) would be transferred to the PSRU. LNG carriers would be powered by natural boil-off gas from their LNG cargo, as agreed with the U.S. Environmental Protection Agency (USEPA) (Klimczak 2005). The Applicant has not finalized design specifications for LNG carriers; therefore, the diesel storage capacity for LNG carriers cannot be estimated at this time."^{72, 73}

Using the industries Cabrillo Port LNG Revised Draft EIR calculations with respect to the Jordan Cove Energy Project indicates the Jordan Cove Facility would need more than 105 shipments using 148,000 cubic meter LNG vessels to Export .9 billion cubic feet of gas per day. If boil off losses and the heel of LNG left in tanks to maintain coldness are considered and calculated in, the Jordan cove facility would need additional shipments per year making the total shipments using 148,000 cubic meter ships to be between **105 to 117 shipments or 210 to 234 harbor disruptions.**

CO39-45
Cont'd

148,000 m³ LNG Vessels
148,000 m³ = 5,226,570.675 cubic feet LNG
5,226,570.675 cubic feet LNG X 600 = 3,135,942,405 cubic feet Natural Gas
.9 Bcf/d X 365 = 328.5Bcf/y
328,500,000,000 cubic ft a year for export / 3,135,942,405 cubic ft Gas per shipment = 105 shipments

148,000 m³ - 15,100m³ = 132,900m³ LNG per shipment
132,900m³ LNG = 4,693,319.207 cubic feet LNG
4,693,319.207 cubic feet LNG X 600 = 2,815,991,524.2 cubic feet Natural Gas
.9 Bcf/d X 365 = 328.5Bcf/y
328,500,000,000 cubic ft a year for export / 2,815,991,524.2 cubic ft Gas per shipment = 117 shipments

⁷¹ Energy for the 21st Century, Page 264, by Roy L. Nersisyan ; 2006;
http://books.google.com/books?id=JOSCHNH_TM4C&pg=PA264&lpg=PA264&dq=Percentage+of+fuel+left+in+ vessel+to+maintain+coldness&source=bl&ots=2yTNjHIVs&sig=Utz7PULbEFP2LxY3nFka7nTWc&hl=en&sc= hAsSuKOK536gPh3sSrCa&sa=X&ei=book_result&ct=result&resnum=1

⁷² Cabrillo Port LNG Deepwater Port Rev Draft EIR, p. 2-21
http://www.slc.ca.gov/Division/Pages/DEPM/DEPM_Programs_and_Reports/BHP_Deep_Water_Port/RevisedDraftEIR/1aCabTransport/PDF%20Text-APP%20Section%20Project_Description.pdf

⁷³ BHP Billion Cabrillo Port Liquefied Natural Gas Deepwater Port Rev Draft EIR (March, 13, 2006)
[http://www.slc.ca.gov/Division/Pages/DEPM/DEPM_Programs_and_Reports/BHP_Deep_Water_Port/BHP_DR\(S-R\).html](http://www.slc.ca.gov/Division/Pages/DEPM/DEPM_Programs_and_Reports/BHP_Deep_Water_Port/BHP_DR(S-R).html)

CO39 Continued, page 46 of 61

In the 3rd year of Operation Jordan Cove has plans on increasing their LNG Export shipments to 1.55 Bcf/d.

BUT THE MATH DOESN'T ADD UP

1.55 Bcf/d X 365 days in a year = 565.75 Bcf/y of Natural Gas
565,750,000,000 cubic ft a year needed / 3,135,942,405 cubic ft Gas per shipment = 180 shipments.

1.55 Bcf/d X 365 days in a year = 565.75 Bcf/y of Natural Gas
565,750,000,000 cubic ft a year needed / 2,815,991,524.2 cubic ft Gas per shipment = 201 shipments.

Using 148,000 cubic meter ships this would add up to approximate 180 to 201 shipments or 360 to 401 harbor disruptions which is more than there would be high tides in a year. Obviously Jordan Cove plans to build an LNG slip dock that is capable of housing 217,000 cubic meter LNG ships because THAT IS WHAT JORDAN COVE WOULD NEED.

The FERC Environmental Impact Statement needs to reflect this and include the Port of Coos Bay's Channel Deepening and Widening project and its cumulative environmental impacts in with the analysis.

In addition, FERC needs to drop the notion that LNG Vessels are Non-Jurisdictional Facilities because the ships are KEY COMPONENTS of the Jordan Cove LNG Export Project. One cannot exist without the other. The EIS SHOULD INCLUDE THE CUMULATIVE ENVIRONMENTAL IMPACTS AND HAZARDS OF THE LNG VESSEL'S POLLUTION, NECESSARY DREDGING, BALLASTS WATER IMPACTS, SAFETY AND SECURITY HAZARDS AND NECESSARY CHANNEL DEEPENING AND WIDENING. Instead these items have been severely under calculated and/or are completely missing in the Draft EIS.

OCEAN GROVE DEVELOPMENT

On February 19, 2014 a hearing occurred with the Coos Bay Planning Commission concerning the modular Ocean Grove development being proposed off of Ocean Blvd in Coos Bay as a result of economic development that includes the Jordan Cove LNG Export project. The only notice about the hearing was a small brief clip found in the Public Notice section of the World Newspaper. Very few public citizens attend the hearing or had any idea what was being planned. Due to a request to leave the record open during public comments, the Hearing Officer continued the hearing until March 17, 2014. The Planning Commission and Coos Bay Council have since approved the Ocean Grove Development and because the development is a direct result of the proposed Jordan Cove project, the development project and its impacts should be analyzed in the FERC EIS process.

CO39-46

CO39-47

CO39-48

CO39-46 In a filing on January 15, 2015, Jordan Cove stated it would use a maximum of 1.04 Bcf/d of natural gas to produce 6.8 MMTPA of LNG.

In its May 2013 application to the FERC, Jordan Cove stated that it expects visits from about 90 LNG carriers per year. The Coast Guard limited the size of vessels that can use the waterway to the terminal to 148,000 m3 in capacity in its WSR and LOR.

The Port project has nothing to do with the Jordan Cove Project. They are not inter-related or connected actions. Therefore we do not have to analyze the Port project, which would be run through the COE, not the FERC. However, our DEIS does account for the Port project in cumulative impacts.

CO39-47 The EIS is in compliance with FERC policy on non-jurisdictional facilities.

CO39-48 This housing development is included in the cumulative effects section along with other foreseeable projects. It is not part of the proposed Jordan Cove project being considered by FERC because this is a matter for the local government to permit or not permit. FERC has no authority over local zoning issues.

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OYSTER ISSUES

Export Draft EIS page 4-359 states:

All work in the bay would be done during the ODFW recommended in-water window between October 1 to February 15. Turbidity caused by dredging would be localized, dissipating to minor levels of suspended sediments within 200 feet, as discussed below.

Export Draft EIS page 4-360 states:

*Modeling was conducted by CHE to determine the potential effects of slip excavation and the construction of the Pacific Connector pipeline through Haynes Inlet should these activities occur at the same time. The results of this modeling are presented in two volumes: CHE (2010b) and CHE (2011b, provided as Appendix H.2 of Jordan Cove's Resource Report 2). **Construction of the slip and the dredging of the access channel would produce no or negligible impacts on tidal flow circulation near Jordan Cove and Haynes Inlet.** As expected, the result of the tidal flow circulation modeling and analysis has shown that there would be a localized reduction of velocities at the Project site and a small localized increase of velocities downstream and upstream of the Project site. As there are small localized changes in tidal velocities and sediment transport predicted by the model, water quality would not be affected, and no water quality and geomorphic changes cascading up and down the bay or into the tributaries would occur based on model analysis (CHE 2010b). (Emphasis added)*

Export Draft EIS page ES-7/8

Therefore, turbidity from dredging of the access channel would be temporary (lasting about 4 to 6 months during construction) and localized, minimizing impacts on the aquatic environment of the bay...

... Pacific Connector would minimize impacts by following the measures outlined in its Report on Preliminary Pipeline Study of the Haynes Inlet Water Route, including keeping the bucket below the water level, following a turbidity monitoring plan, installing turbidity curtains, and fueling and maintaining equipment more than 150 feet from standing water.

Dr. Thomas Ravens who has been modeling hydrodynamics and sediment transport in estuarine environments for 18 years found serious deficiencies in Dr. Vladimir Shepsis's modeling work. Dr. Thomas Ravens states the following on page 2 of his November 13, 2011 report:

"Chapters 10 and 11 of Exhibit 4 (entitled Jordan Cove Energy Project and Pacific Connector Gas Pipeline - Volume 2) present sediment transport calculations which purport to show that sediment transport impacts of the proposed dredging project in Haynes Inlet would have minimal impacts. However, close scrutiny of Exhibit 4 shows that there are serious deficiencies in the methodology employed in the sediment transport

CO35-49

CO39 Continued, page 47 of 61

CO39-49 The analysis presented for likely turbidity and sediment transport by the Applicant considered the worst case source of turbidity during the Haynes Inlet pipeline dredging operations indicating limited distribution and concentrations. These analysis and data were used for the EIS analysis (Section 4.6.2.3).

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modeling. Consequently, the finding that there would only be limited impacts is lacking a solid foundation....^{74,75} (Emphasis added)

Dr. Thomas Ravens goes on to outline in his report the most serious flaws under the following subheadings:

1. Use of un-validated sediment transport model to establish background conditions.
2. Assumption of spatially uniform sediment size despite data indicating significant heterogeneity.⁷⁶

In addition, the Pacific Connector Gas Pipeline failed to show that their plan for relocating Olympia oysters would be a successful mitigation measure. Dr. Alan Trimble explained in his October 5, 2011 letter that we submitted to FERC in our Olympia oyster filing on Nov 2, 2012,⁷⁶ the following:

"... While it is trivial to suggest that moving existing oysters from locations where they currently exist to locations where they don't is sufficient to preserve them, this isn't a fact based on solid evidence. In fact, substantial evidence exists that moving oysters (and other organisms) increases mortality rates; hundreds of millions of *Ostrea lurida* adults have been moved within and between estuaries since the 1850's, (see Collins, 1892 and Townsend, 1896 as examples) with the vast majority of events resulting in massive mortalities.

There is no guarantee that transplanting existing oysters between locations in Haynes Inlet will result in equivalent or improved survival and fitness (reproductive success in making offspring which survive to produce offspring) to leaving them in the places where they currently exist. Transplantation is not a proven mechanism for mitigation in oysters in general or *Ostrea lurida* in particular.⁷⁷

Trained oyster experts should have been conducting the surveys to determine how many Olympia oysters would actually be impacted in Haynes Inlet. Dr. Daneille Zaehrl explained in her October 8, 2011 letter that oysters are notoriously morphologically plastic and difficult to identify. She stated the following on page 2:

"... When my inexperienced students are paired with expert surveyors, they typically miss more than half of the oysters in a given area. Once they develop their "search image"

⁷⁴ When Dr. Ravens refers to 'Exhibit 4,' he is referring to "Technical Report Volume 2 - Jordan Cove Energy Project and Pacific Gas Connector Pipeline, Coastal Engineering Modeling and Analysis, dated March 9, 2011, prepared by Coast & Harbor Engineering, Inc.

⁷⁵ November 14, 2011; Mark Cherniak, Ph.D., Surrebutal Report Exhibit 3. "Limitations of the Haynes Inlet sediment transport study" by Tom Ravens, Ph.D., Professor, Department of Civil Engineering, University of Alaska, Anchorage, November 13, 2011; Page 2-4.

⁷⁶ http://efery.ferc.gov/dms/cfile_1681021/0250111025117

⁷⁷ October 10, 2011; Mark Cherniak, Ph.D., Rebuttal Report Exhibit 3; October 5, 2011 Letter from Alan Trimble, Ph.D., Research Scientist, University of Washington, Department of Biology, Seattle Washington, Page 3.

CO39 Continued, page 48 of 61

CO39-50 Olympic oysters have been successfully moved in other areas including Coos bay, so while there is no guarantee that all would survive this is not an unreasonable mitigative action. Additionally to mitigate for any losses the applicant has proposed mitigation in the form of additional suitable substrate in the Haynes Inlet for oysters to occupy.

CO39-51 While the exact number accounted for in the survey may be somewhat different if others were to conduct the survey most of the survey area did not have suitable habitat for the Olympic oyster, which is hard substrate. So it may be possible that differences in numbers occur, the resulting number for the overall length of the project would not be large and the overall conclusions of effects would not be substantially changed. Additionally the permitting process requires the applicant to consult with ODFW on methods to protect the oyster including mitigation methods (see Coos County Planning Department File No.REM-11-01 concerning approved permit requirements issued March 14, 2012).

CO39 Continued, page 49 of 61

they become much more proficient. It is not clear how much training, if any, the surveyors at Ellis Ecological Services had prior to their survey work...⁷⁸

CO39-51 Cont'd

Dr. Danielle Zacherl also found other flaws in the Pacific Connector Gas Pipeline's plans to distribute 30 cubic yards of Pacific oyster shell over 15 acres as part of their mitigation effort. The attached November 14, 2011 letter from Dr. Danielle Zacherl demonstrates that the depth of replacement substrate is a key factor determining the success of *Ostrea lurida* recruitment:

"...My experiments in Newport Bay do not demonstrate that thin coverings of sedimentation do not impair the attachment of *Ostrea lurida* larvae. In these experiments, we laid out beds of oyster shells, either loose or bagged. These beds were either 4 centimeters deep (which we called "shallow"), or 12 centimeters deep (which we called "deep"). When oyster shells are laid out in this manner – in beds – there are undersides of hard substrate upon which *Ostrea lurida* larvae could attach, and therefore some sedimentation cover on the topside of shell is less of an overall impediment for the attachment of *Ostrea lurida* larvae. Under PCGP's proposed mitigation plan, oyster shells would not be laid out in beds. On the contrary, shells would be distributed so diffusely that hardly any undersides of hard substrate would be created. Therefore, thin sedimentation covers on the shells that would be distributed by PCGP would indeed be a substantial impediment for the attachment of *Ostrea lurida* larvae. Further, they misrepresented my data, by neglecting to note that the % cover of shell on our shallow beds is rapidly declining (to only 60% after 6 months) to the point that I am concerned whether the shallow beds will remain emergent after another year. Note again that our shallow beds provide two orders of magnitude more relief (height) than PCGP's proposed mitigation plan."⁷⁹

CO39-52

Dr. Mark Chernaik did an outstanding job of presenting the arguments and compiling the data concerning the potential impacts of the proposed Pacific Connector Gas Pipeline project on the Olympia oyster (*Ostrea lurida*) and the "resource productivity" of Haynes Inlet. Olympia oysters in the Coos Bay Estuary, and in particular Haynes Inlet, have a much better chance of survival thanks to his work. We are extremely grateful for his time and effort on this. Dr. Mark Chernaik succinctly summarizes the issues in the following statement found on page 9 of his November 14, 2011 Surrebuttal report:

"Proponents of multi-billion dollar industrial projects have vast resources to pay for scientific reports with elaborate illustrations that have the allure of scientific validity. Because citizens who are concerned about the impacts of such projects must make do with far fewer resources, these project proponents are not accustomed to close inspection of their technical data, assumptions, reasoning and conclusions. This imbalance describes

⁷⁸ October 10, 2011: Mark Chernaik, Ph.D., Rebuttal Report
Exhibit 2: October 8, 2011 Letter from Danielle Zacherl, Ph.D., Associated Professor, Department of Biological Science, Box 6850, California State University, Fullerton, CA; Page 2
⁷⁹ November 14, 2011: Mark Chernaik, Ph.D., Surrebuttal Report
Exhibit 1: November 14, 2011, letter from Danielle Zacherl, Ph.D., Associated Professor, Department of Biological Science, Box 6850, California State University, Fullerton, CA; Page 3

CO39-52 While there may be some varied ways to install oyster shells to obtain optimum setting locations for Olympic oysters the applicant is supplying a large amount of habitat. The final details of the placement can be worked out with ODFW which the applicant will need to consult with before final installation of the habitat (see response to CO39-51).

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the situation between PCGP and CALNG and the question of whether the proposed project would fail to protect the resource productivity of Haynes Inlet.

"Despite the David-versus-Goliath situation they find themselves in, CALNG has revealed numerous, serious flaws in the technical arguments put forward by PCGP, including the early claim by Dr. Bob Ellis that Olympia oysters "are not known to inhabit the Project Action Area (ODLCD, 1998)." LUBA Record at page 1331. Following this, CALNG has revealed additional errors, including but not limited to the following errors that are the subject of this round of testimony: that PCGP relied on untrained surveyors to identify and find native oysters in Haynes Inlet; that PCGP misunderstands the nature of native oyster restoration experiments performed by Dr. Danielle Zacherl; and that PCGP relied on un-validated estimates of background turbidity and inaccurate assumptions of sediment particle size when predicting the impact of trenching activities.³⁰ Combined with previous errors, such as proposing to commence trenching activities at the beginning of October, just before the height of the spawning season for Olympia oysters in Coos Bay, these numerous mistakes place the applicant far short of meeting their burden of demonstrating that their proposed project would not have more than a *de minimis* or insignificant impact on native oysters in Haynes Inlet."³¹

CO39-53

"We had hoped that the FERC and the Cooperating Agencies would have consider and addressed these issues, along with others presented here in this filing during their review and analysis of the Jordan Cove / Pacific Connector LNG Export project. If the Pacific Connector Gas Pipeline is not able to be diverted out of the estuary, **additional Conditions of Approval should be imposed on the project in order to protect and insure the vitality of the Olympia oyster (*Ostrea lurida*) and other functioning biological systems within the estuary.** We would be happy to work with agency personnel on this issue. Our Olympia oyster filing on Nov 2, 2012 to FERC had an attached addendum of an overview by Dr. Mark Chernaik of additional Conditions of Approval that should be imposed.³¹ In addition, see additional impacts to local Oyster growers as *Exhibit 22*.

CO39-54

OTHER ISSUES

Jordan Cove's latest Tsunami inundation data was not based on current tsunami and earthquake data from DOGAMI and it did not include liquefaction and subsidence issues, the Port of Coos Bay's proposed 7 mile deepening and widening project and dredging impacts from the LNG proposed slip dock and pipeline trench for 2.4 miles up Haynes Inlet.

CO39-59

TSUNAMIS and WILDFIRES

Oregon Statewide Planning Goal #7, adopted on Sept 28, 2001, became effective on June 1, 2002, almost 12 years ago, and included Tsunamis and Wildfires as Natural Hazards. These Natural Hazards should have been added to the Coos County Ordinance during the required periodic review update but Coos County Planning has not been doing periodic reviews.

³⁰ November 14, 2011, Mark Chernaik, PhD, Surrebutal Report, Page 9
³¹ http://efilemy.ferc.gov/dmwyw/file?name=ccoscon_nu=20121105a117

CO39 Continued, page 50 of 61

CO39-53 See response to CO39-49 above concerning sediment analysis. The applicant did conduct surveys that found Olympic oysters in the route and these were reported so earlier statements are not applicable. See response to CO39-51 concerning oyster counts.

CO39-54 The applicant will consult with ODFW about procedures to use during pipe installation and Olympic oyster related actions during the construction. Additionally the Coos County Planning Department has added specific actions to Conditional Use Application land use application approval that the applicant will need to implement to insure that impacts to Olympic oyster are not substantial. Additionally the applicant will need to obtain other state and federal permits that would address Haynes Inlet environment relative to proposed project actions before the project can be constructed.

CO39-55 The DEIS discusses Tsunami hazards, liquefaction and subsidence issues in section 4.2. DOGAMI data from 2014 is included in the analysis.

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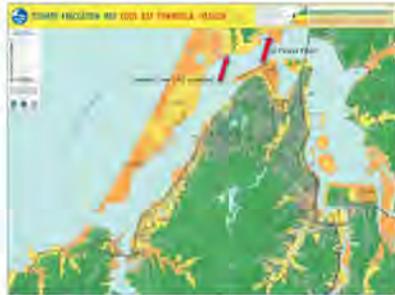
CO39 Continued, page 51 of 61

The 2007 LUBA case No. 2007-260 against Coos County Board of Commissioners Final Decision and Order 07-11-289PI, dated December 5, 2007, should have prompted the Coos County Planning Department to revise the Coos County Zoning and Land Development Ordinance (CCZLDO) with respect to Statewide Planning Goal 7 and the tsunami hazard issue. The Oregon Land Conservation and Development Commission (LCDC) and Coos County were well aware of the tsunami issue not being listed as a natural hazard in the CCZLDO but despite our efforts in 2007/2008, no attempt was made by the LCDC or the County to update the CCZLDO. It is still not updated.

CO39-56

The May 2010 Coos County Multi-jurisdictional Natural Hazards Mitigation Plan included Tsunami's and Wildfires and BOTH of these hazards should have been incorporated into the Coos County Zoning and Land Development Ordinance long before now during a periodic review.

Tsunami inundation maps were updated on Feb 11, 2012, by Oregon Department of Geology and Mineral Industries and filed with Coos County.



CO39-57

A 13 year comprehensive analysis of the Cascadia Subduction Zone off the Pacific Northwest coast completed on August 1, 2012, confirmed that our region has had numerous earthquakes over the past 10,000 years, and suggests that the southern Oregon coast may be most vulnerable based on recurrence frequency. Written by researchers at Oregon State University, and published online by the U.S. Geological Survey,⁸² the study concludes that there is a 40

⁸² 13-year Cascadia study complete – and earthquake risk looms large - 08/01/2012 <http://oregonstate.edu/ia/news/archives/2012/jul/13-year-cascadia-study-complete-%E2%80%93-and-earthquake-risk-looms-large>

Study Link: Turbidity Event History—Methods and Implications for Holocene Paleoseismicity of the Cascadia Subduction Zone - By Chris Goldfinger, C. Hans Nelson, Ann B. Morey, Joel E. Johnson, Jason R. Patton, Eugene Karabanov, Julia Gutiérrez-Pastor, Andrew T. Eriksson, Eulalia Gracia, Gita Dunhill, Randolph J. Enkin, Audrey Dallimore, and Tracy Vailier - <http://pubs.usgs.gov/pp/pp1661/>

- CO39-56 The FERC has no authority over the local and state processes.
- CO39-57 Section 4.2.1.3 discusses the earthquake history on the coast of Oregon (as well as along the entire West Coast).

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percent chance of a major earthquake in the Coos Bay, Oregon, region during the next 50 years. And that earthquake could approach the intensity of the Tohoku quake that devastated Japan in March of 2011.

FERC NEEDS TO SERIOUSLY GET EDUCATED ABOUT THIS HAZARD.

PLEASE WATCH THIS VIDEO:

Tsunami - Earthquake Attacking Japan 2011

<https://www.youtube.com/watch?v=YlheuDM4Cx4> (25:48 min)

As this video clearly shows water in the Coos Estuary would **leave the waterbody at the beginning of a tsunami making it impossible to maneuver** an LNG tanker out of the Coos Bay.

This shorter video shows the immense power of a tsunami wall of water
<https://www.youtube.com/watch?v=cym2c18OQM&feature=youtu.be>

According to a November 2009 report by the Oregon Department of Transportation (ODOT)⁸³, hundreds of Oregon bridges remain vulnerable to earthquake damage. ODOT has begun a study to define the magnitude of the problem by evaluating the vulnerability of state highway bridges in western Oregon. ODOT estimates they'll need \$3 billion to prepare Oregon's bridges to withstand a major earthquake along the coast, far more money than they have. Without such repairs, a 9.0 temblor would leave U.S. Highway 101 impassable and state highways 38 and 42 in disrepair. There may be no way to access the pipeline block valves if need be.



Oregon Revised Statutes 455.446 to 455.449 prohibits construction of certain facilities and structures in tsunami inundation and earthquake zones. The Oregon Resilience Report dealing with how to handle the new earthquake and tsunami information was published in Feb of 2013. See **Exhibit 38** for select pages and maps found in that report indicating how devastating the Cascadia subduction earthquake and tsunami would be to the South Coast of Oregon when it occurs. An Oregonian article that was published on June 26, 2014, titled, "Jordan Cove LNG terminal at Coos Bay designed for Cascadia quake, tsunami though hazards remain," states among many other things the following:

⁸³ "Seismic Vulnerability of Oregon State Highway Bridges - Mitigation Strategies to Reduce Major Mobility Risks", Oregon Dept of Transportation: Bridge Engineering Section, November 2009, http://ftp.odot.state.or.us/Bridge/Bridge_website_chatrst/2009_Seismic_Vulnerability_Final.pdf

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CO39 Continued, page 52 of 61

- CO39-58 A 9.0 earthquake could cause extensive damage to roads, buildings and infrastructure; although the exact level of damage can only be estimated. As stated in the DEIS, pipelines survived a recent 9.0 earthquake in Chile with little damage. The effects of a large earthquake are discussed in section 4.2 of the DEIS.
- CO39-59 All facilities would need to comply with state law. Obtaining a coastal zone permit from the State is part of the permitting process.

CO39-57 Cont'd

CO39-58

CO39-59

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CO39 Continued, page 53 of 61

CO39-60 Comment noted.

... "It should be an assumption that this will happen during the lifetime of the facility," said Chris Goldfinger, a seismologist at Oregon State University and leading authority on subduction zone earthquakes. "You can engineer anything to survive anything if you put enough money into it, but I've seen a lot of very well-engineered stuff destroyed as if it were Legos."

"From my perspective, and the probabilities, I would certainly have reservations about building one of these terminals down there," he said.

"I would say every one of us would be reluctant to suggest a liquefied natural gas terminal on the coast here," said Anne Trehu, an OSU geologist who studies the Cascadia Subduction Zone.

Run-up and subsidence estimates were considerably less for the smaller, more likely, earthquake scenarios that Zhang modeled. In either case, the study concluded that the height of the proposed design "exceeds the design level tsunami event."

Yet Zhang also says "all the results need to be taken with a grain of salt." Before the Japanese quake in 2011, he said, geophysicists had concluded that 15-meter-high waves were not possible at Fukushima.

Yet that's exactly what happened, resulting in cascading series of failures that ultimately resulted in the meltdown of three nuclear reactors.⁵⁴ (Emphasis added)

SOUTHWEST OREGON REGIONAL AIRPORT

Statewide Planning Goal 12, ORS 836.600 et seq., the Oregon Transportation Plan, and the 2000 Oregon Aviation Plan have rules that outline the parameters for local governments to follow as a framework for airport planning. The county has an update to their Ordinance in the works for the Southwest Oregon Regional Airport but is currently not in line with the State's laws for airport planning. Most of the land use permits that have been approved for the Jordan Cove project (noted above) were decided WITHOUT there being an overlay for the North Bend Southwest Oregon Regional Airport in the Coos County ZLDO.

The March 2011 Coos County Transportation System Plan clearly instructs the Planning Dept to apply an overlay Airport Surfaces zone to the North Bend (Southwest Oregon Regional) Airport by amending the County Zoning and Land Development Ordinance as stated on page A-12:

North Bend Municipal Airport Master Plan (2002)

The Oregon International Port of Coos Bay updated the master plan completed in 1997 to reflect changed circumstances and situations at the North Bend Municipal Airport. The Airport Master Plan includes the two-phase series of improvements including

⁵⁴ Jordan Cove LNG terminal at Coos Bay designed for Cascadia quake, tsunami though hazards remain By Ted Sickinger - The Oregonian - June 26, 2014 http://www.oregonlive.com/business/and/ew.ssf/2014/06/coos_bay_lng_terminal_designed.html?ncwt_river

CO39-60

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renovation of the existing terminal for general aviation use, runway improvements and construction of a new terminal facility which is planned for completion by 2011.

There is no reference to the North Bend Municipal Airport in the Coos County Comprehensive Plan. Coos County plans to apply an overlay Airport Surfaces zone to the airport by amending the County Zoning and Land Development Ordinance. (Emphasis added)

The Coos County Comprehensive Plan *“recognizes the county is responsible for identifying potential hazard areas, informing its citizens of risks associated with development in known hazard areas, and establishing a process involving expert opinion so as to provide appropriate safeguards against loss of life or property.”* Because this has not been done it is now up to the FERC to thoroughly address these issues WHICH HAS NOT BEEN THE CASE IN THE CURRENT DRAFT EIS.

In April of 2013 a West Chemical and Fertilizer Company plant in West, Texas, (a small town of about 2,800 people 75 miles south of Dallas) blew up twenty minutes after the fire started. The explosion shook houses 50 miles away and was so powerful that the United States Geological Survey registered it as a 2.1-magnitude earthquake. It flattened homes within a five-block radius and destroyed a nursing home, an apartment complex, and a nearby middle school. According to the New York Times, the blast left a crater 93 feet wide and 10 feet deep, and the fire “burned with such intensity that railroad tracks were fused.” The blast killed at least 14 people, most of them firefighters and other first responders.⁸⁵

A Dallas Morning News investigation in 2008 found that Dallas County residents were **“at risk of a toxic disaster because outdated and haphazard zoning had allowed homes, apartments and schools to be built within blocks — in some cases even across the street — from sites that use dangerous chemicals.”**⁸⁶

The Jordan Cove Energy Project’s FERC application⁸ states on page 13 the following:

“Two ground flares are included in the Project design for emergency venting. One flare is to handle gas relieved during emergency upset conditions at the LNG Terminal site (e.g. extended power outages, extended emergency shutdown events, etc.). The second flare will be used in emergency situations to relieve and protect equipment in the pipeline gas conditioning facility.”

Since the property level the JCEP would be built on is being raised up some 30+ feet, how high exactly will these flares end up being above what property heights are currently, and what impact would this have with regard to the Southwest Oregon Regional Airport? Flares are usually much higher than the rest of the facility and the applicant has failed to provide this information.

⁸⁵ *“What Went Wrong in West, Texas — and Where Were the Regulators?”* - by Theodoric Meyer ProPublica, April 25, 2013 - <http://mex.com/blogs/2013/04/25/what-went-wrong-in-west-texas-and-where-were-the-regulators/>

⁸⁶ *“DMN Investigates: Thousands of Dallas County residents aren’t aware of the danger nearby (2008)”* By Michael Grabell, Staff Writer · Published: 01 June 2008 · Updated: 19 April 2013 <http://www.dallasnews.com/news/west-explosion/headlines/20080601-toxic-neighbors-thousands-of-dallas-county-residents-aren-t-aware-of-the-danger-nearby-2008.ece>

CO39 Continued, page 54 of 61

CO39-61 The Draft and Final EIS are regulated by NEPA, not the Coos County Comprehensive Plan. The FERC has no authority over the local or state process.

CO39-62 The facility, including any flares, would need to meet FAA safety standards. See section 4.10.1.4 of the DEIS, including the recommendation in that subsection.

CO39-60 Cont'd

CO39-61

CO39-62

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The FAA governs height restrictions concerning the airport's overlay zone areas but does not govern whether hazardous facilities should or should not be placed in the airport overlay zones. **This is the job of the FERC along with the State and County planning process to protect the public concerning these types of land use hazards and decisions.** The FERC is ultimately responsible and has an obligation to the public to err on the side of caution and to protect the *public health, safety convenience and general welfare*. There is no way to condition or guarantee that an aircraft would NEVER fly into the proposed gas liquefaction facility being sited directly in the regulated navigational airspace less than a mile from the end of the airport runway.

1. The Jordan Cove Draft EIS does not address air pollution impacts, columns of steam, fog, turbulence and other hazards, as those issues relate to the Southwest Oregon Regional Airport.
2. The Jordan Cove Draft EIS does not address cumulative impacts of the two flares, the two -three Amine towers, the four to six liquefaction trains and the two 255 foot high LNG tanks on the Southwest Oregon Regional Airport nor the impact of these structures on migratory birds, which could also impact the airport. (See Exhibits 39 and 40)
3. The Jordan Cove Draft EIS does not address noise impacts, glare, nor cumulative noise impacts and glare as it relates to the airport and other uses in the surrounding area.
4. The Jordan Cove Draft EIS has not recognized the Southwest Oregon Regional Airport as required. The proposed LNG Jordan Cove export facility places an extreme hazard on the surrounding area due to its close proximity with the airport runways and overlay zones.
5. The Jordan Cove Draft EIS does not protect the public health, safety, convenience and general welfare as required. Statewide Planning Goal 12; Oregon Administrative Rules and Oregon Revised Statutes governing

CO39-63

CO39-64

CO39-65

CO39-66

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CO39 Continued, page 55 of 61

- CO39-63 The statement that "There is no way to condition or guarantee that an aircraft would NEVER fly into the proposed gas liquefaction facility being sited directly in the regulated navigational airspace less than a mile from the end of the airport runway" is correct. There is also no way to guarantee that an aircraft flying from Seattle to LA would never fly into the proposed facility. The same can be said for any location between any two airports. The DEIS evaluates risks based on consideration of safety measures that would be implemented, in this case by the FAA, the airport, the pilots, and the designers of the terminal. See section 4.10.1.4 of the DEIS, including the recommendation in that subsection.
- CO39-64 Emissions associated with both construction and operations are addressed in section 4.12. We are not aware of any evidence that the emissions from the plant would create fog or otherwise impact the operation of the airport.
- CO39-65 Our analysis of potential Project-related impacts on the Southwest Oregon Regional Airport in North Bend can be found in section 4.10.1.4 of the DEIS. In their December 17, 2009 Order approving the original Jordan Cove LNG import proposal in Docket No. CP07-444-000, the other four sitting Commissioners disagreed with and overruled Mr. Wellinghoff's dissent. In a letter to the Commission dated December 22, 2014, commenting on our November 2014 DEIS for the LNG export Project in Docket No. CP13-483-000, the Southwest Oregon Regional Airport and Coos County Airport District stated that it "strongly concurs with (the) recommendation (in the DEIS for Jordan Cove to document consultations with the FAA and submit the results of studies before Project construction) and believes that the FAA process will assure that the Airport continues to operate safely and efficiently." Noise impacts are addresses in section 4.12.2.4.
- CO39-66 The FAA is responsible for airport safety. Their approval would be required, as disclosed in section 4.10.1.4 of the DEIS, also see the recommendation in that subsection.

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CO39 Continued, page 56 of 61

planning decisions around transportation / airport facilities was not considered.

CO39-66
Contd

Conclusion

It is unfair for citizens to have to prepare legal briefs on other permit process and proceedings occurring on the Jordan Cove Project and also compile comments on other permit processes at the same time the Jordan Cove NEPA EIS process is underway. FERC should have put a stop to these other permit processes occurring since that is a direct violate of NEPA.

CO39-67

The Draft EIS is deficient and does not meet NEPA requirements and guidelines as explained above. Additional Safety and Security comments will be coming in a separate filing. The entire Jordan Cove permitting process has become so tainted by Jordan Cove's actions that at this point it may be impossible for FERC to proceed in their NEPA review in a legally defensible manner. FERC should use this case and Jordan Cove's actions as an example of what applicants should NOT DO if they wish to obtain a NEPA Certificate and Approval from FERC.

CO39-68

Sincerely

/s/ Jody McCaffree

Jody McCaffree.

- CO39-67 FERC has no authority over state and local permitting processes.
- CO39-68 Comment noted. As the response above states, the DEIS does not violate NEPA. It is a science-based assessment of the proposed project and the impacts that would be expected to result if the project is approved.

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**McCaffree Index for Exhibits
For comments to FERC
February 13, 2015**

RE: Jordan Cove Energy Project, L.P. Docket No. CP13-483-000 and Pacific Connector Gas Pipeline, L.P. Docket No. CP136-492-000.

Exhibit 1:

March 20, 2008, LUBA No. 2007-260 *Petition for Review Brief of Intervenor –Petitioner Randy Prince minus the appendices*, Regarding Coos County Board of Commissioners' adoption of Final Decision and Order 07 -II-289PL, "In the Matter of a Conditional Use HBCU-07-04 applied for by Jordan Cove Energy Project, L.P.

Exhibit 2:

August 26, 2008, Court of Appeals CA No. A139263 / LUBA No. 2007260 – *Opening Brief of Randy Prince*. Regarding Coos County Board of Commissioners' adoption of Final Decision and Order 07 -II-289PL, "In the Matter of a Conditional Use HBCU-07 -04 applied for by Jordan Cove Energy Project, L.P.

Exhibit 3:

November 27, 2007, *Coos County Hearings Officer Analysis, Conclusions and Recommendations to the Coos County Board of County Commissioners* regarding Port of Coos Bay Gateway LNG Marine Terminal Slip Dock. Coos County File No. HBCU-07-03. Filed by Anne Corcoran Briggs, 825 NE 20th Avenue #336, Portland, OR 97232

Exhibit 4:

Coos County November 22, 2013 *Notice of Withdrawal* of Jordan Cove's application for a design and site plan review of their *South Dunes Power Plant and Gas Processing facility*. Coos County File No. SP-12-02, AP-13-01 & AP-13-02. Withdrawal notice filed by Jordan Cove on November 14, 2013.

Exhibit 5:

May 29, 2014, LUBA No. 2014-022 *Amended Petition for Review of Petitioners Jody McCaffree, Jonathan Hanson and Dana Gaab*. Appeal to LUBA was of Final Decision and Order 14-01-006PL, adopted by the Coos County Board of Commissioners on February 4, 2014. This Order approved a modification of Condition No. 25 justifying in part, the County's Final Decision and Order No. 10-08-045PL, for the Pacific Connector Gas Pipeline, dated September 8, 2010.

Exhibit 6:

September 24, 2014 (*Originally filed in August 2014*) Court of Appeals No. A157506 / LUBA 2014022 *Petitioners' Corrected Opening Brief and Excerpt of Record of Petitioners Jody McCaffree, Jonathan Hanson and Dana Gaab*. Concerning Final Decision and Order 14-01-006PL, adopted by the Coos County Board of Commissioners on February 4, 2014. This Order approved a modification of Condition No. 25 justifying in part, the County's Final Decision and Order No. 10-08-045PL, for the Pacific Connector Gas Pipeline, dated September 8, 2010.

CO39-69

CO39 Continued, page 57 of 61

CO39-69 This comment letter contained attachments that did not directly comment on the DEIS. These attachments have been reviewed and any relevant information found was incorporated into the analysis as applicable; however, the attachments are not included in this Appendix to the FEIS. The entire comment letter, including these attachments, is available on the eLibrary filed under accession number 20150217-5145.

Exhibit 7:

Sept 12, 2014, LUBA No. 2014-049 *Petition for Review of Petitioners Stacey McLaughlin, John Clarke, Pamela Ordway, and Barbara Brown*. Appeal was of the Final Decision and Order PD File 13-04 7, adopted by the Douglas County Board of Commissioners on April 30, 2014 that declined review of the Douglas County Planning Commission's decision of March 20, 2014, and affirmed, and incorporated said decision as the County's final decision. The Planning Commission's March 20, 2014 decision of the Major Amendment to the Conditional Use Permit and Utility Facility Necessary for Public Service authorization approved the removal of Condition No. 12 adopted by the County as part of its prior 2009 approval of a new Pacific Connector Gas Pipeline to be constructed in Douglas County's Coastal Zone Management Area (CZMA). The prior decision is identified herein as "PD 09-045" or "2009 Decision".

Exhibit 8:

October 10, 2014, LUBA No. 2014-049 *Reply Brief of Petitioners Stacey McLaughlin, John Clarke, Pamela Ordway, and Barbara Brown*.

Exhibit 9:

December 29, 2014, Court of Appeals A158313 / LUBA no. 2014-049 (*Corrected*) *Petitioners' Opening Brief and Excerpt of Record of Petitioners Stacey McLaughlin, John Clarke, Pamela Ordway, and Barbara Brown*.

Exhibit 10:

November 25, 2014, LUBA No. 2014-061 *Petition for Review of Jan Dilley and Jody McCaffree* regarding appeal of the Final Decision and Order adopted by the City of North Bend on June 16, 2014, concerning the North Bend City Council's Notice of Decision made on May 27, 2014, dismissing an appeal filed by Jan Dilley and 60+ North Bend citizens and to grant Intervenor-Respondent, SHN Consulting Engineers and Geologists, Inc (the Applicant) their Motion to Dismiss the Dilley appeal that was filed on May 2, 2014. This case involves the Jordan Cove Worker Camp for 2,100 workers.

CO39-69
Cont'd

Exhibit 11:

March 20, 2014 comments submitted by Jody McCaffree to the DEQ concerning Jordan Cove's application for a, "General NPDES 1200-C Permit for Construction Storm Water Discharges for Pile Test and Ground Improvement Testing Programs."

Exhibit 12:

December 16, 2014 letter from Barbara Gimlin, former Environmental Lead for Jordan Cove project to Jeff C. Wright, Director, Office of Energy Projects, Federal Energy Regulatory Commission. In March 2014, Barbara had been named as the acting Environmental Inspector (EI) for the JCEP Kiewit \$15 million exploratory test program conducted at the LNG terminal site on the North Spit of Coos Bay.

Exhibit 13:

UNSOLICITED APPLICATION FOR AN OUTER CONTINENTAL SHELF RENEWABLE ENERGY COMMERCIAL LEASE UNDER 30 CFR 585.230
Principle Power WindFloat Pacific Pilot Project—May 14-2013.

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CO39 Continued, page 59 of 61

Exhibit 14:

10-8-2007 Interruptible Transportation Agreement between Jordan Cove and Coos County for preuse of gas flowing through the 12-inch Coos County pipeline. CA#320.

Exhibit 15:

Four possibilities for Jordan Cove's future - County ponders four taxing scenarios for LNG facility - By Chelsea Davis - The World ; March 8, 2014
http://theworldlink.com/news/local/govt-and-politics/four-possibilities-for-jordan-cove-s-future/article_6bba9d4e-9e65-11e3-9da1-0019bb2963f4.html

Exhibit 16:

January 6, 2015 Industrial Energy Consumers of America letter to President Obama
Re: Unfettered Exports of Liquefied Natural Gas (LNG) are not in the Public Interest.

Exhibit 17:

March 5, 2014 E-mail from Russell Berg A CIV of the U.S. Coast Guard to Jody McCaffree informing her that the Coast Guard only protects the water not the air or shoreline.

Exhibit 18:

A Human Rights Assessment of Hydraulic Fracturing for Natural Gas - Prepared for New York State Dept of Environmental Conservation Commissioner Joe Martens by Earthworks' Oil and Gas Accountability Project, Wash DC - Dec 12, 2011

Exhibit 19:

Drilling Deeper - A Reality Check on U.S. Government Forecasts for a Lasting Tight Oil & Shale Gas Boom - J. David Hughes Post Carbon Institute - Oct 2014

Exhibit 20:

The Fracking Fallacy - The United States is banking on decades of abundant natural gas to power its economic resurgence. That may be wishful thinking. By Mason Inman - Dec 4, 2014
Nature
http://www.nature.com/polopoly_fs/1.16430!/menu/main/topColumns/topLeftColumn/pdf/516028a.pdf

Exhibit 21:

November 24, 2013 letter submitted to the Oregon Governor, Senator Wyden, Senator Merkley and Peter Defazio expressing detailed issues and problems with the Jordan Cove project.

Exhibit 22:

January 7, 2015 E-mail from Jack Hampel of the Coos Bay Oyster Company expressing his concerns about the potential impacts of the Pacific Connector Pipeline on his Coos Bay Oyster Company business.

Exhibit 23:

How to Achieve 100% Renewable Energy - World Future Council Policy Handbook. September 2014

CO39-09
Cont'd

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CO39 Continued, page 60 of 61

Exhibit 24:

Powering Up Oregon - A Report on the Economic Benefits of Renewable Electricity Development - January 2015

Exhibit 25:

A Green Industrial Revolution – Climate Justice, Green Jobs and Sustainable Production in Canada By Marc Lee and Amanda Card – Canadian Centre for Policy Alternatives – June 2012

Exhibit 26:

Enbridge Pipe Dreams and Nightmares - The Economic Costs and Benefits of the Proposed Northern Gateway Pipeline By Marc Lee - Canadian Centre for Policy Alternatives – March 2012

Exhibit 27:

"*MONEY STARTS FLOWING Jordan Cove parent company looks at financing, ownership options, expansion* ; March 28, 2014 1:00 pm • By Chelsea Davis, The World - Coos Bay http://theworldlink.com/news/local/govt-and-politics/jordan-cove-parent-company-looks-at-financing-ownership-options-expansion/article_51e9f9ce-b521-11e3-9421-001a4bcf887a.html

Exhibit 28:

Veresen Inc September 9, 2013, Cover letter to the Secretary of the National Energy Board of Canada regarding the Jordan Cove LNG L.P. application for a licence pursuant to section 117 of the *National Energy Board Act* authorizing the export of gas.

CO39-69
Cont'd

Exhibit 29:

September 9, 2013, *NEB Application of the Jordan Cove LNG L.P.* for a licence pursuant to section 117 of the *National Energy Board Act* authorizing the export of gas.

Exhibit 30:

September 9, 2013, *Appendix A Project Description* of the Application of the Jordan Cove LNG L.P. to the Canadian National Energy Board

Exhibit 31:

September 9, 2013, *Appendix B Export Volumes* of the Application of the Jordan Cove LNG L.P. to the Canadian National Energy Board

Exhibit 32:

September 9, 2013, *Appendix C Supply and Demand Market Assessment and Surplus Evaluation Report – Prepared by Navigant Consulting, Inc, September 9, 2013* included as a part of the Application of the Jordan Cove LNG L.P. to the Canadian National Energy Board

Exhibit 33:

September 9, 2013, *Appendix D Export Impact Assessment by Gordon Pickering, Navigant – September 2013* included as part of the Application of the Jordan Cove LNG L.P. to the Canadian National Energy Board

Exhibit 34:

September 3, 2013 submittal from SHN Consulting Engineers & Geologist, Inc into the record of the Coos County Land Use South Dunes Power Plant File No. SP-12-02.

Exhibit 35:

September 18, 2013 compilation of FAA filings involving the Jordan Cove Energy Project and the Southwest Regional Airport in North Bend By Jody McCaffree.

Exhibit 36:

September 10, 2013 Rebuttal Comments by CALNG/McCaffree submitted into the record of the Coos County Land Use South Dunes Power Plant File No. SP-12-02.

Exhibit 37:

October 11, 2013 Final Comments of Jordan Cove submitted into the record of Coos County Land Use South Dunes Power Plant File No. SP-12-02.

Exhibit 38:

The Oregon Resilience Plan - Reducing Risk and Improving Recovery for the Next Cascadia Earthquake and Tsunami Report to the 77th Legislative Assembly from Oregon Seismic Safety Policy Advisory Commission (OSSPAC) February 2013
http://www.oregon.gov/OMD/OEM/osspace/docs/Oregon_Resilience_Plan_Final.pdf

Exhibit 39:

7,500 songbirds killed by flare at Canadian gas plant By Tom Grimwood - Energylive News; September 2013

Exhibit 40:

OSHA Report concerning *Potentially Hazardous Amine Absorber Pressure Vessels Used in Refinery Processing* From John Miles Jr, Director of Field Operations 1986

CO38-69
Cont'd

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CO40

Comment to FERC JMM

I'm writing this letter to ask that you read and study the document written by Mark Sheldon entitled "Comments on Jordan Cove Energy and Pacific Connector Gas Pipeline-Proposed Route Versus Blue Ridge Alternative Route." It shows quite plainly the errors and mistakes of the draft EIS.

CO40-1

Thank-you,

Jason Messerle
Vice President
Messerle & Sons, Inc.

CO40 Messerle & Sons, Jason Messerle

CO40-1 Your preference for the blue ridge route as you believe it to be the less environmental impact route is noted. Responses were developed for all substantive comments submitted.

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RON WYDEN
OREGON
ASSOCIATED
PUBLIC FILE

United States Senate
WASHINGTON, DC 20510-3703

December 10, 2014

Chairwoman Cheryl A. LaFleur
Commissioner Philip D. Moeller
Commissioner Tony Clark
Commissioner Norman C. Bay
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC. 20426

RE: Request for Extension of Public Comment Period on the Draft Environmental Impact Statement for the Jordan Cove Liquefaction and Pacific Connector Pipeline Project (Docket Nos. CP13-483-000 and CP13-492-000)

Dear Chairwoman LaFleur and Commissioners Moeller, Clark, and Bay:

Federal Energy Regulatory Commission (FERC) recently released the Draft Environmental Impact Statement for the Jordan Cove Liquefaction and Pacific Connector Pipeline Project (Docket Nos. CP13-483-000 and CP13-492-000). This Project proposes to construct a liquefied natural gas (LNG) export terminal in Coos Bay, Oregon, and an accompanying pipeline capable of transporting natural gas from the Malin, Oregon hub to the Jordan Cove terminal. Given the importance of this project to Oregonians, I am requesting that FERC provide the public with an extension of the public comment period for this project, for a total of 120 days.

As you are aware, a number of my constituents are interested in this project. Small communities in need of the jobs that the construction and operation of the LNG terminal may bring, as well as those concerned about the environmental impacts of this facility have all made their voices known. I have consistently reassured them that throughout this process, their voices will have a chance to become part of the official record.

While I have praised the approval of Jordan Cove's application to export LNG and urged the Department of Energy to consider this application without delay, I have also assured my constituents FERC is complying with full legal requirements of the permitting process. FERC's draft environmental impact statement (DEIS) is quite lengthy and complex, and the release of the more than 5,000 page document comes near the end of the year. Given the length and complexity of the DEIS, I believe the comment period should be extended by 30 days to ensure that concerned Oregonians have adequate time to provide FERC with the information the agency needs to make an informed decision about the Project. Extending the comment period

FA1 CP13-483
COMMITTEES
COMMITTEE ON THE BUDGET
COMMITTEE ON ENERGY AND NATURAL RESOURCES
SUBCOMMITTEE ON PUBLIC UTILITIES AND FORESTS
SPECIAL COMMITTEE ON AGRICULTURE
SELECT COMMITTEE ON INTELLIGENCE
COMMITTEE ON FINANCE
CP13-492

DEC 19 3 23
FEDERAL ENERGY REGULATORY COMMISSION

FEDERAL AGENCY

FA1 Senator Ron Wyden, Washington, DC

FA1-1 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

FA1-1

1200 SW 2ND AVE. SUITE 500 PORTLAND, OR 97204 503 556-7125
408 EAST 8TH AVE. SUITE 3000 EUGENE, OR 97401 541 431-0229
SAC, PACIFIC REGION 400 EAST 17TH ST. SUITE 200 EUGENE, OR 97401 541 586-7865
U.S. COURTHOUSE 515 WEST 4TH ST. ROOM 116 PORTLAND, OR 97201 541 838-6322
THE AMERICAN BUILDING 101 NW HANFORDING AVE. SUITE 167 BEND, OR 97701 541 330-0142
RD 17317, SE. SCHEISS SALIDA, OR 97131 541 599-4525
HTTP://WYDEN.SENATE.GOV
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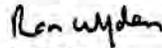
FA1 Continued, page 2 of 2

for a total of 120 days would allow citizens and organizations adequate time to review the extensive DEIS and provide FERC with their comments.

The Jordan Cove/Pacific Connector Project has been in development for more than six years and represents potentially the largest private investment in Oregon's history. A project of this size and scope certainly merits careful consideration.

I urge you to extend the public comment period for the draft environmental impact statement for the Jordan Cove Liquefaction and Pacific Connector Pipeline Project to a total of 120 days.

Sincerely,



Ron Wyden
United States Senator

CC:

Paul Friedman
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington D.C. 20426

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington D.C. 20426

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Congress of the United States
Washington, DC 20515

January 12, 2015

The Honorable Cheryl LaFleur
Chairman
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Dear Chairman LaFleur:

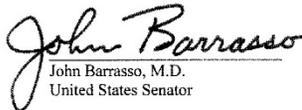
We write to express our strong support for the Jordan Cove Energy and Pacific Connector Gas Pipeline Project (Jordan Cove Project) proposed for Coos Bay, Oregon. The Federal Energy Regulatory Commission (FERC) has, for the most part, completed the environmental review process for LNG export facilities located along the east coast and the Gulf of Mexico in a timely manner. We applaud FERC for its work on these projects and ask that it complete the final environmental impact statement (EIS) for the Jordan Cove Project as soon as possible. The Jordan Cove Project is essential to ensure that Rocky Mountain states and Indian tribes have the opportunity to access overseas markets and enjoy the economic benefits of LNG exports.

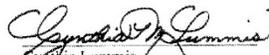
Natural gas production serves as a foundation to the economies of Rocky Mountain states, including Colorado, Utah, and Wyoming, and Indian tribes, including the Ute Indian Tribe and the Southern Ute Indian Tribe. Natural gas production provides our communities with tens of thousands of good-paying jobs. For example, in Colorado, the oil and natural gas sector added 12,461 direct jobs between 2005 and 2012. That is over 12.5 percent of the total jobs Colorado employers created during this period. Natural gas production also provides state, local, and tribal governments with hundreds of millions of dollars in revenue. For example, in fiscal year 2014, approximately 16 percent of general operation revenue for the State of Wyoming came from Federal mineral royalties and state severance taxes collected on natural gas production alone.

As FERC's draft EIS notes, the Jordan Cove Project is the only proposed LNG export facility that would provide Rocky Mountain communities the opportunity to access overseas markets. Specifically, it would allow gas shipped on the Ruby pipeline—as well as gas shipped on the Gas Transmission Northwest pipeline—to be exported to overseas markets. Overseas markets would give producers an alternative to markets here in the United States, Canada, or Mexico. FERC has already given eastern and Gulf coast states the opportunity to access overseas markets. We believe it should give Rocky Mountain states and Indian tribes the same opportunity. To that end, we urge FERC to complete the final EIS for the Jordan Cove Project as soon as possible.

Thank you for your consideration and we look forward to your prompt response.

Sincerely,


John Barrasso, M.D.
United States Senator


Cynthia Lummis
U.S. Representative

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2015-00001

CP13-483

CP13-498

FA2

OFFICE OF
EXTERNAL AFFAIRS
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FEDERAL ENERGY
REGULATORY COMMISSION

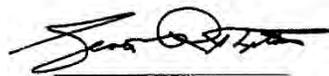
FA2-1

FA2 U.S. Congress, John Barrasso and Cynthia Lummis

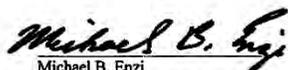
FA2-1 Comment noted.



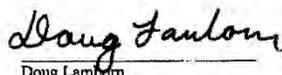
Cory Gardner
United States Senator



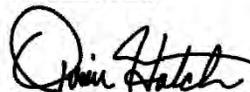
Scott R. Tipton
U.S. Representative



Michael B. Enzi
United States Senator



Doug Lamborn
U.S. Representative



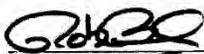
Orrin G. Hatch
United States Senator



Mike Coffman
U.S. Representative



Mike Lee
United States Senator



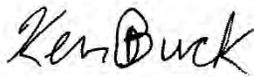
Rob Bishop
U.S. Representative



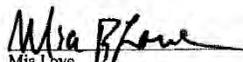
Chris Stewart
U.S. Representative



Jason Chaffetz
U.S. Representative



Ken Buck
U.S. Representative



Mia Love
U.S. Representative

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JEFF MERKLEY
OREGON

ASSOCIATED
PUBLIC FILE

United States Senate

WASHINGTON, DC 20510

January 16, 2015

Chairman Cheryl LaFleur
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Dear Chairman LaFleur:

I am writing to request your consideration of enhanced safety measures for the proposed Pacific Connector Gas Pipeline. Your agency's Draft Environmental Impact Statement routes the pipeline near homes and through Oregon's unique and difficult landscape, while maintaining the lowest class, "Class 1", of safety standards throughout the majority of the route. While I understand that the safety classes are determined primarily by population density along the pipeline's route, I urge you to require increased internal pipe inspections when the pipeline is in close proximity to any residence or river to ensure the safety of my constituents and the protection of our natural resources.

The Pacific Connector would carry natural gas 234 miles across Oregon from Main to the Jordan Cove export facility at a pressure upwards of 200 pounds per square inch. Of the total 234 miles of the pipeline's route, 212 miles are given the lowest safety precaution of "Class 1", despite the proposed construction running within 50 feet of seven residences and running under three iconic rivers—the Rogue, Coos and Klamath. My constituents are concerned that this classification undervalues their welfare compared to urban populations, and also fails to protect natural resources in the event of an accident.

The "Class 1" designation entails a pipe with higher pressure that is thinner and buried higher, all while conducting fewer leak surveys, testing at lower hydrostatic pressures, and forgoing internal inspections of the pipe. Given Oregon's difficult topography including the Cascade and Coastal mountain ranges, 30 miles of National Forest Lands, as well as the potential dangers to land and home owners, I believe that the enhanced safety features, such as increased inspection, are merited to protect the residences impacted by the pipeline. These inspections, conducted by "inspection pigs", can detect leakage, corrosion, or flaws in the pipeline before they become a fatal defect. Increasing internal inspections is a rational step to protect and reassure the homeowners and residences affected by the pipeline.

Thank you in advance for your consideration of Oregon's specific topography and environment, and ensuring that public safety and environmental protection is a priority in the permitting of the Pacific Connector Gas Pipeline.

Sincerely,

Jeffrey A. Merkley
United States Senator

2015-00021

313 HART SENATE OFFICE BUILDING
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FAX (202) 228-3997

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CP13-483
FA3
COMMITTEES:
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AND URBAN AFFAIRS
BUDGET
ENVIRONMENT AND
PUBLIC WORKS
OFFICE OF
THE CLERK
FEDERAL ENERGY
REGULATORY
COMMISSION

FA3

U.S. Senate, Jeffrey A. Merkley

FA3-1

Class designations for pipelines were established by the U.S. Department of Transportation (DOT), and can be found under Title 49 Code of Federal Regulations (CFR) Part 192.5. The DOT would address compliance with the requirements of 49 CFR 192 as part of its inspection and enforcement program. Pacific Connector has committed to easement monitoring during operation of the pipeline, consisting of weekly air patrols, annual helicopter surveys of the right-of-way, and quarterly class location reviews. In addition, Pacific Connector's maintenance of the pipeline would include integrity management activities, including internal inspections to measure and record pipeline geometry, external or internal corrosion, and provide information about pipe characteristics such as wall thickness. As indicated in section 4.13 of our DEIS, we believe the pipeline can be built and operated in a manner that protects public safety.

FA3-1

20150204-0012 FERC PDF (Unofficial) 02/03/2015
 ASSOCIATED PUBLIC FILES
RON WYDEN
 OREGON
 CHAIRMAN OF COMMITTEE ON FINANCE
 201 JORDAN SENATE OFFICE BUILDING
 WASHINGTON, DC 20516
 (202) 224-3244

United States Senate
 WASHINGTON, DC 20510-3703

January 30, 2015

Chairman Cheryl A. LaFleur
 Federal Energy Regulatory Commission
 888 First Street, NE
 Washington, DC 20426

Dear Commissioner LaFleur:

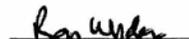
I am writing to request information on the methods employed by the Federal Energy Regulatory Commission (FERC), in consultation with the Pipeline and Hazardous Materials Safety Administration (PHMSA), to estimate the environmental and public safety risks of proposed Liquefied Natural Gas (LNG) terminals in the United States. Within the public comments for the Jordan Cove Export Terminal Project (see FERC Docket No. CP13-483), serious concerns are raised regarding the adequacy of the hazard modeling used to measure vapor cloud dispersion.

FERC and PHMSA oversee the development of energy infrastructure in America, ensuring this development takes place in a manner that protects the safety of our communities and the security of our energy supply. It is imperative that FERC and PHMSA use the best information and methods available to approve or deny projects, such as LNG facilities. It is also important for the public to have access to as much of this information as possible to ensure transparency in the permitting and evaluation process.

Please provide a description of the current protocol used by FERC, in consultation with PHMSA and other agencies, to evaluate the environmental impacts and public safety of proposed LNG projects related to vapor cloud dispersion. Please specifically describe the models employed in the analysis, including whether or not they are the latest versions of those models available. Also, please discuss the extent to which the models, and their underlying assumptions and data, are made publicly available. If there are constraints on public access to either models or data, please provide an explanation of these constraints and the rationale underpinning them.

I appreciate your timely consideration of this matter. A similar letter with the same questions was sent to Acting Administrator Butters at PHMSA.

Sincerely,


 Ron Wyden
 United States Senate

Cc: Timothy P. Butters, Acting Administrator, Pipeline and Hazardous Materials Safety Administration

CP13-483
 COMMITTEES: FA4
 FEDERAL ENERGY REGULATORY COMMISSION
 OFFICE OF PUBLIC AFFAIRS
 2015-02-03 12:04

FA4-1

FA4 United States Senate, Ron Wyden

FA4-1

The USDOT PHMSA establishes the federal safety standards for siting, construction, operation, and maintenance of LNG facilities as specified in Title 49, Code of Federal Regulations (CFR), Part 193. In 2004, the FERC and PHMSA signed an Interagency Agreement to ensure greater coordination in addressing the full range of safety issues at LNG terminals. In accordance with this agreement, PHMSA serves as a cooperating agency during FERC staff's preparation of the environmental documents necessary to satisfy NEPA.

As part of the Commission's review process, applicants are required to identify how a proposed design would comply with the siting requirements contained in PHMSA's Part 193 regulations. While PHMSA is responsible for enforcement of these regulations, FERC staff uses this information, developed by the applicant to comply with Part 193, to assess whether or not the facility may have a public safety impact. As part of the NEPA document preparation, PHMSA performs a project-specific review of the applicant's design spill criteria to determine compliance with Part 193. At the conclusion of this review, PHMSA notifies FERC staff whether the applicant's procedures for selecting design spills is acceptable under Part 193 and also directs the applicant to place this information in the FERC docket.

The design spills resulting from this review are then used in the estimation of vapor cloud dispersion. All models to be used in meeting the siting requirements of Part 193 must be approved for use by PHMSA. Currently, PHMSA has approved several models for use in dispersion modeling: DEGADIS 2.1, FEM3A, FLACS 9.1 release 2, and PHAST 6.6 and 6.7. The approval of DEGADIS and FEM3A were part of a rulemaking undertaken by PHMSA in 1997 and 2000, respectively. As stated in PHMSA's regulations, both of these models are available from the Gas Technology Institute (formerly known as the Gas Research Institute). In 2011, PHMSA issued approvals for the use of FLACS and PHAST in Part 193 siting calculations. These are proprietary software packages which are available from GexCon US Inc. and DNV GL, respectively.

For all hazard modeling, the input parameters and data are filed in the FERC docket by the applicant. As allowed by the Commission's regulations in 18 CFR Section 388.112, the applicant may request that some or all of this information be treated as either privileged information or critical energy infrastructure information. The procedures for requesting access to this information are also contained in 18 CFR Section 388.112. In all cases, FERC staff evaluates the hazard modeling input and output files to ensure the simulations are done accurately and within the limitations of the models. Each public NEPA document, including the draft EIS for the Jordan Cove Liquefaction Project, discusses the key input parameters and the results of hazard analyses.

Please be assured, as in any Commission matter, we strive to make our review of energy proposals both accessible and transparent to the public while balancing the need to protect critical infrastructure information.

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IN REPLY REFER TO
1A2 (PWRO)

United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
909 1st Avenue #F 500
Seattle, WA 98104



FA5

February 11, 2015

Kimberley D. Bose, Secretary
Federal Energy Regulatory Commission
888 First St. NE, Room 1A
Washington, DC 20426

Re: Docket Nos. CP13-483-000 and CP13-492-000

Dear Ms. Bose:

The National Park Service (NPS) appreciates the opportunity to review and comment on the Jordan Cove Energy and Pacific Connector Gas Pipeline Project Draft Environmental Impact Statement (DEIS). According to the DEIS, Jordan Cove is proposing to construct and operate a new liquefied natural gas (LNG) export terminal at Coos Bay, Oregon. Pacific Connector Gas Pipeline is proposing to construct and operate a new 232-mile-long, 36-inch-diameter natural gas transmission pipeline from their Malin, Oregon hub to the proposed Jordan Cove terminal. We evaluated potential project impacts on areas administered by, or affiliated with, the NPS, and provide the following comments for your consideration when preparing the final project EIS.

On pages ES-10, 4-729, and 4-861, the DEIS paraphrases a July 12, 2013, letter from the NPS National Trails Intermountain Region (NTIR) concerning potential effects to the Applegate Trail segment of the California National Historic Trail, which is administered by the NPS. While the paraphrasing captures the basic intent of the letter, we would like to clarify that NTIR's comments were offered in response to an invitation to consult about development of an indirect effects Area of Potential Effect. Our comments related specifically and explicitly to potential visual impacts to "visually sensitive National Register-eligible remnants, high potential segments, or high potential sites of the Applegate Trail" at those project crossings along your preferred route. In other words, we agreed that there would be no visual impacts to visible Applegate Trail remnants. NTIR did not more broadly address "intact segments of the Applegate Trail," as there could exist intact segments that are not visible to the eye but that could be detected with LIDAR or other geophysical or archeological techniques. The paraphrasing in the DEIS could be understood by some readers to mean that the NPS claims that the trail has been destroyed and there is no potential for even archeological evidence of the trail to exist at the crossing. Such a conclusion would extend beyond the intent of NTIR's letter and our knowledge of trail resources at the crossing locations; and so we leave it to the lead agency, project proponent, and State Historic Preservation Officer to make that determination.

FA5-1



FA5 United States Department of the Interior, National Park Service

FA5-1 The DEIS text in Section 4.11.1.3, pg. 4-861 notes that the trail is covered by modern roadways at the points where Pacific Connector would cross the route. Therefore, there is no potential for intact, non-visible segments of the trail at these locations. The text specifically states that NTIR's assessment of impact is for visual effects only. Text revised to clarify the lack of trail remnants/direct impacts and NTIR's assessment of visual effect to other segments that are nearby and intact. The revised text in Section 4.11.1.3 now reads: "At both locations modern roads have removed traces of the historic trail. In a letter to Pacific Connector, the NPS concurred that the Project would have no adverse visual impacts on intact segments of the Applegate Trail elsewhere along the Project route where the trail is in proximity."

If you have any questions regarding our comments, please contact Lee Kreutzer, Cultural Resources Specialist/Archeologist for the NTIR, at 801-741-1012 x 118.

Sincerely,



Palmer Jenkins
Deputy Regional Director Planning and Resource Management
Pacific West Region

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FA6

FA6 United States Environmental Protection Agency, Region 10



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

February 11, 2015

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First St., NE, Room 1A
Washington, DC 20426

Re: EPA Region 10 Comments on the Draft Environmental Impact Statement for the Jordan Cove Energy Project (Docket No. CP13-483-000) and Pacific Connector Pipeline (Docket No. CP13-492-000), EPA Reference #12-0042-FRC

Dear Secretary Bose:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Impact Statement (DEIS) for the Jordan Cove Energy and Pacific Connector Gas Pipeline Project. Our review has been conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

Staff of the Federal Energy Regulatory Commission (FERC) have prepared a DEIS for the natural gas facilities (collectively referred to as the Project) proposed by Jordan Cove Energy Project, L.P. and Pacific Connector Gas Pipeline L.P. The project facilities would be located in Coos, Douglas, Jackson, and Klamath Counties, Oregon, and are designed to export an equivalent of about 0.9 billion cubic feet per day of natural gas to customers around the Pacific Rim.

Specific components of the project include an access channel from the existing Coos Bay navigation channel to the terminal marine slip; marine slip, with a berth for one liquefied natural gas (LNG) vessel on the east side and a berth for tug boats on the north side; LNG loading system; LNG transfer line; LNG storage system, consisting of two full-containment LNG storage tanks, each with a net capacity of 160,000 cubic meters; boil-off gas recovery system; four natural gas liquefaction trains; refrigerant storage and resupply system; aerial cooling system; emergency systems and utilities and support structures; utility corridor including a 230-kilovolt (kV) transmission line and access road; and a pipeline gas conditioning facility.

The non-jurisdictional facilities associated with the Jordan Cove's LNG export terminal would include the South Dunes Power Plant, consisting of a nominal 420-megawatt (MW) natural gas-fired combined cycle electric generating system and heat recovery steam generator units; the Southwest Oregon Regional Security Center (SORSC); and other security and control facilities, administrative buildings, and support structures associated with the power plant.

The main jurisdictional natural gas pipeline facilities proposed by Pacific Connector include: a 232-mile-long, 36-inch-diameter welded steel underground pipeline, capable of transporting about 1.07 billion cubic feet per day of natural gas from interconnections with existing supply pipelines near Malin; the Klamath Compressor Station; four meter stations; five pig launcher or receiver units; 17 mainline block valves; and a gas control communication system, including 11 radio towers.

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The non-jurisdictional facilities associated with the Pacific Connector Pipeline Project include electric lines to the meter stations and compressor station.

The EPA recognizes the management challenges created by the mixed private/federal ownership of the project area, the diverse resource needs, and multiple statutory requirements. The FERC staff are to be commended for their effort in this ambitious and difficult undertaking. We also want to recognize the efforts of FERC, the applicant, and their contractors to engage state and federal resource agencies, as well as the tribes, in a meaningful dialogue about this project. We trust this will help inform FERC's selection and development of the proposed action in the final EIS.

The EPA served as a cooperating agency on this project. In that capacity, the EPA participated in numerous cooperating agency calls and meetings. We are pleased with the progress that has been made in these forums. In particular, we are pleased with the effort on the part of the applicant and FERC to craft an EIS that can be utilized by the federal land management agencies (the U.S. Department of Interior Bureau of Land Management and U.S. Department of Agriculture Forest Service) to support their respective decision-making processes.

Our review of the DEIS finds that while many of our concerns have been addressed, additional information and analyses are needed. In this letter we will highlight our overarching questions and concerns. Our detailed comments and recommendations to address each of the issues raised below are included as an attachment.

A primary concern is the lack of information related to the purpose of the west berth, and the extent to which future Port of Coos Bay (Port) activities may be connected to the proposed slip configuration. Should it be determined through further analysis that future Port development is not viable without the west berth, the FEIS should analyze the impacts associated with the Port's proposed use of the west berth and any expansion into Henderson Marsh consistent with 40 CFR 1508.25.

FA6-1

Our review also identified information needs related to the siting of the Southern Oregon Resource and Safety Center and Northpoint Workforce Housing Complex. These facilities are interrelated and interconnected actions and should receive thorough analysis in the FEIS. This includes siting criteria applied to demonstrate avoidance or minimization of potential wetland fill, as well as information about the management of waste (sanitary and solid waste, wastewater and stormwater); the installation and removal of utilities; and site restoration.

FA6-2

Our review of aquatic impacts raised a question about the potential for cumulative impacts to stream temperature within sub-basins where there are multiple stream crossings. We recommend that this be given additional consideration in the FEIS. We also recommend parity in approach to the application of best management practices and mitigation measures between federal land and nonfederal land.

FA6-3

With regard to the disposal of dredged material, we appreciate the effort taken by the FERC and Jordan Cove to incorporate the initial 5.6 million cubic yards of dredged material into the upland design of the project. We continue, however, to have some questions about the use of an EPA-designated Ocean Dredged Material Disposal Site (ODMDS) for the disposal of material generated through maintenance dredging.

FA6-4

The EPA designated the current location and configuration of Coos Bay ocean disposal sites E and H in 1986, and Site F in 2006. Jordan Cove proposes to use Site F for future maintenance dredging actions. The applicant's Dredged Material Management Plan (DMMP) (page 8) states that, "...maintenance

FA6

Continued, page 2 of 17

FA6-1

The multi-user facility is no longer being considered. The proposed action under this NEPA analysis includes a single-use slip and access channel that solely supports LNG operations. The 800-foot slip width would be needed in order to be able to move an LNG vessel off of the LNG berth on the east side of the slip in the event of an incident within the LNG upland facilities that might threaten the safety of the LNG vessel at berth. Having the 800 foot slip width provides the flexibility needed for tugs to move the LNG vessel away from a hazard at the terminal or at the LNG loading dock to the relative safety of the west side of the slip. All references to a multi-purpose facility, mixed-use facility and/or alternative use in the DEIS, appendices and other supporting documents have been deleted from the FEIS.

FA6-2

The Southern Oregon Resource and Safety Center (SORSC) is analyzed in the EIS as a non-jurisdictional facility, and the North Point Workforce Housing Complex is analyzed as part of Jordan Cove's facilities under FERC jurisdiction. Section 2.2.4 discusses utility connections. Sanitary and solid waste disposal for the Project, which includes the SORSC and NPWHC, is discussed in Section 4.9. Section 4.4 assesses impacts to wetlands.

FA6-3

Comment noted.

FA6-4

The discussion of the disposal site has been updated in the FEIS to reflect this information.

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material will consist primarily of silt and clay material with some sand." However, the more recently issued U.S. Army Corps of Engineers (USACE) Public Notice¹ states, "Materials to be dredged are predominantly fine to medium sized sands generated by erosive processes in the bay and from the sides of the constructed slip." These are two conflicting statements about the potential grain size of the maintenance dredged material. Whether Jordan Cove should propose to use Site F or Site H for dredged material disposal depends largely on grain size.

Dredged material that is predominantly sand could be disposed at Site F. If the proposed dredged material is predominantly fine sand, silt, or clay, it would be disposed at Site H. The DMMP (Table 5-1, Page 47) discounts the use of Site H because it states Site H is "restricted to finer-grained sands and silts from above river mile 12." Whether an applicant can use either Site F or Site H is not based on the location of the river mile, but instead the grain size of clean dredged material. The EPA uses river mile 12 only as a guide to potential users for future planning needs.

FA6-4
cont.

For EPA to consider dredged material disposal at either of these sites, Jordan Cove would need to evaluate the material proposed for disposal using the Pacific Northwest Sediment Evaluation Framework (USACE 2009).² Through this regulatory process, the applicant would analyze grain size of the proposed dredged material. Once it is determined which site is best suited for the material, Jordan Cove would need to conduct a site capacity assessment for that site. It should not be assumed that site capacity is unchanged from 2006. Both Site F and Site H have received substantial volumes of dredged material in recent years and our understanding of sediment dynamics at these sites is evolving. Previous disposals, the hydrodynamics of the nearshore area, changing winter storm intensities, and the response of the seafloor geomorphology all affect capacity and should be considered within Jordan Cove's site assessment. This assessment must be reviewed and approved by the EPA and USACE prior to EPA receiving a request for a permit for disposal of dredged material under Section 103 of Marine Protection, Research, and Sanctuaries Act (MPRSA).

It is worth noting that Site H is a significantly smaller disposal site than Site F and may not be able to accommodate current users' needs with the addition of Jordan Cove's contribution. If this is the outcome of the site capacity assessment, Jordan Cove would need to work with EPA to designate a new ocean dredged material disposal site for finer-grained material. EPA's designation process is outlined in 40 CFR Part 228.

FA6-5

Before a permit could be issued, the USACE Regulatory Project Manager would need to submit to EPA a public notice pursuant to 33 CFR 337.1(a)(17), 33 CFR 325.3(a)(17), 40 CFR 225.2(a) and a section 103 criteria evaluation for the disposal of dredged material at an EPA designated Ocean Dredged Material Disposal Site based on 40 CFR 227 "Criteria for the Evaluation of Permit Applications of Ocean Dumping of Materials." As a part of this review, EPA is required to consider impacts to potential economic effects, which would include any impacts to the USACE ability to maintain safe navigation for the public.

FA6-6

We recognize and appreciate Jordan Cove's proposed action in the DEIS does not include a Section 103 MPRSA permitting action. Nevertheless, we believe it is important for the FEIS and Order to highlight the logistical and regulatory requirements that must be met by the applicant in order to ultimately

¹ <http://www.eop.usace.army.mil/Missions/Regulatory/PublicNotices/abid1809/Article55420/mwp-2012-441.aspx>

² U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Washington Department of Ecology, Washington Department of Natural Resources, Oregon Department of Environmental Quality, Idaho Department of Environmental Quality, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. 2009. Sediment Evaluation Framework for the Pacific Northwest. Published May 2009, by the U.S. Army Corps of Engineers, Northwestern Division, 126 p. plus Appendices.

FA6 Continued, page 3 of 17

- FA6-5 The discussion of the disposal site has been updated in the FEIS to reflect this information.
- FA6-6 Text has been added to Chapter 1 describing the process.

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receive a Section 103 permit. Maintenance dredging is a key component to the long term viability of the Jordan Cove Energy project.

Our detailed comments also note that the DEIS did not include consideration of the potential impacts resulting from increased production of natural gas attributable to LNG export facilities. This issue was considered to be outside the scope of the DEIS (Section 1.4.4). We recognize the challenge associated with attributing development of natural gas resources and the potential impacts resulting from increased production of natural gas to one export project. Nevertheless, both the Department of Energy (DOE) and the FERC have recognized that an expansion of LNG exports would lead to increases in production. We continue to believe that a conceptual-level discussion of possible impacts from increased production due to proposed facilities would be useful for decision makers and the public. We recommend discussing these potential impacts at a conceptual level by incorporating the results of the DOE study "Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States" in the Final EIS and future NEPA documents for LNG facilities⁽¹⁾.

FA6-7

Finally, we commend the FERC for including an estimate of greenhouse gas (GHG) contributions associated with the combustion of LNG exported by the Jordan Cove Energy Project. Providing this information improves decision makers' understanding and consideration of potential impacts.

FA6-8

Based on our review, we have assigned this draft EIS a rating of EC-2 (Environmental Concerns - Insufficient Information). A copy of the rating system used in conducting our review is enclosed for your reference. EPA appreciates the opportunity to engage with FERC as a cooperating agency and recognizes the challenges posed by adhering to the rigorous schedule assigned to this EIS.

If you have any questions regarding EPA's comments, please contact me at (206) 553-1601, or Teresa Kubo of my staff at (503) 326-2859.

Sincerely,



Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Enclosures:

1. EPA Region 10 Detailed Comments
2. EPA Rating System for Draft EIS's

⁽¹⁾ Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States. DOE (<http://energy.gov/ferc/downloads/addendum-environmental-review-documents-concerning-exports-natural-gas-us>)

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- FA6-7 The DOE addendum states that "fundamental uncertainties constrain the ability to predict what, if any, domestic natural gas production would be induced by granting any specific authorization or authorizations to export LNG to non-FTA countries" and identifies that it goes beyond what is required by NEPA.
- FA6-8 Comment noted.

EPA Region 10 Detailed Comments on the Draft Environmental Impact Statement for the Jordan Cove Energy Project (Docket No. CP13-483-000) and Pacific Connector Pipeline (Docket No. CP13-492-000)		
Citation (DEIS Section, page, topic)	DEIS Text	Issue Identification
Aquatic Resources – Pacific Connector Pipeline Section 4.4.2.2 Pacific Connector Pipeline Page 4-372; Water Quality Limited Waters	...removal of vegetation that once shaded the stream may cause local and temporary (daily) increases in temperature during the hot summer months. This may or may not exceed the TMDL on temperature-impaired streams. Assessments of individual stream crossings for temperature impaired streams may be needed to identify the risk of exceeding the TMDL for temperature if woody riparian vegetation will be removed	Stream temperature increases above the human use allowance of .3 degrees Celsius in TMDL basins may be considered by the Oregon Department of Environmental Quality (ODEQ) to be a violation of water quality standards. We appreciate that mitigation ratios are discussed on page 4-425 of the DEIS (1.1 for construction impacts and 1.2 for permanent impacts). It is unclear, however, how agreements related to required mitigation would be reached. It is also unclear how this mitigation would be applied on non-federal land.
Section 4.4.2.2 Pacific Connector Pipeline Page 4-372; Water Quality Limited Waters	Site-specific assessments for water quality impaired streams should identify appropriate mitigation for each TMDL that is at risk.	We recommend the FEIS provide additional detail about how mitigation-related outreach to private landowners would be conducted. We further recommend that the FEIS clarify how JCPC will coordinate with ODEQ within the context of the 401 Water Quality Certification process to ensure that agreement is reached on levels and types of appropriate mitigation.
Section 4.6.2.3-5 Proposed Waterbody Crossing Methods for All Waterbody Crossings, by Subbasins and Fifth-Field Watersheds	Table 4.6.2.3-5 documents the number of crossings within each of the subbasins within the project area.	We support the kinds of mitigation measures discussed in the DEIS (page 4-425) and the Pacific Connector ECRP (section 10.12). We recommend that the same approach be taken for both federal and non-federal land where analysis demonstrates that the pipeline right of way or stream crossing could result in temperature impacts.
Section 4.1.13.3.4 Water Resources and Wetlands Page 4-1027; Surface Water	"The Oregon Forest Practices Act of 1994 would protect stream banks on non-federal lands, requiring a no-harvest buffer.	In those subbasins where multiple crossings are concentrated we recommend the FEIS include a discussion of any potential cumulative effects to stream temperature or large wood availability. The need to revise riparian rules for small and medium fish bearing streams has been recognized by the Oregon Board of

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- FA6-9 Restoration will be completed on private lands as agreed upon in the lease agreements with the private landowner. Mitigation will be coordinated with ODEQ via written communication, as on page 4-425 of the DEIS it states that Pacific Connector will develop a Source Specific Implementation Plan as outlined in DEQs letter of September 12, 2011.
- FA6-10 As stated on page 4-389 of the DEIS, permits required for instream work may contain mitigation measures in addition to those discussed in the EIS. Pacific Connector would work with the COE and ODEQ to address impacts to water quality at stream crossings as part of the CWA Sections 401, 402, and 404 application process.
- FA6-11 See response to CO34-116.
- FA6-12 Pacific Connector will apply the Oregon Department of Forestry's Riparian Management Area (RMA) buffer widths, which are based on stream type and size, on private lands, and revise the ECRP Section 10.12 with a table of RMA widths for streams. Text in Section 4.14.3.4 of the FEIS has been updated to reflect the change.

<p>Section 4.4.2.2 Pacific Connector Pipeline Page 4-395; Hydrostatic Testing</p>	<p>for 20 feet on each side of all fish-bearing streams or streams used for domestic water. Therefore we would not expect Project impacts to water resources to be cumulatively-significant."</p>	<p>Zone Act Reauthorization Amendments. Part of this disapproval was based on the finding that thermal impacts that exceed Oregon's Protecting Cold Water (PCW) criterion OAR 340-041-0028(1) have been documented by ODF from harvest using FPA private forest RMAs for small & medium fish-bearing streams (Groom et al 2011).</p>	<p>Forestry, and work is ongoing by the Oregon Department of Forestry to develop new rule concepts.</p> <p>In the absence of a revised Riparian Protection Rule for timber harvest on private lands, the EPA recommends that either the more stringent riparian standards for federal lands be applied across the JPC project area, or that State Forest Riparian standards be followed for private land (http://www.oregon.gov/odf/pages/state_forests/forest_management_plans.aspx)</p> <p>We recommend that the FEIS, ECRP and any other relevant documents be revised to reflect the level of riparian protection needed to meet shade targets and protect cold water at affected areas on private lands.</p>
<p>Section 4.1.3.3 BLM and Forest Service Land Use Plans and Land Allocations. Page 4-30; Overview of Statutes Applicable to Federal Land Use Planning</p>	<p>Water for hydrostatic testing would be obtained from commercial or municipal sources, private supply wells, or from surface water right owners (see table 4.4.2.2-10).</p> <p>there are five primary federal land-use laws that provide the framework for federal land use plans:</p> <ul style="list-style-type: none"> • NEPA, • ESA, • FLPMA, • NFMA, and • The Oregon and California Revested Lands Sustained Yield Management Act of 1937 (O&C Act) 	<p>Surface water availability may be limited in some basins and use of surface water for hydrostatic testing may negatively impact water quality (temperature, dissolved oxygen) or other beneficial uses (fisheries).</p> <p>The Federal Clean Water Act plays a key role in framing federal land use plans</p>	<p>The FEIS should more accurately reflect and quantify current water availability in each subbasin in the pipeline corridor. The FEIS should include a determination of the feasibility of the proposed hydrostatic testing water sources.</p> <p>Please include the Clean Water Act (CWA) within this section.</p>

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- FA6-13 As stated on page 4-395 of the DEIS, if water for hydrostatic testing would be acquired from surface water sources, Pacific Connector would obtain all necessary appropriations and withdrawal permits, including from the ODWR, prior to use. As part of this process, ODWR would have the applications reviewed by ODEQ and ODFW to determine if there are concerns about the impact water withdrawals may have on water resources, (including concerns relating to the timing, seasonality, and method of withdrawal), as well as water quality and/or fish and wildlife species and the habitat, respectively. ODWR would provide public notice and opportunity to comment on the applications.
- FA6-14 Recognition of the role of the CWA has been added in the FEIS.

<p>Scope of Analysis/Interconnected and Interrelated Projects ES-4 Alternatives Considered</p>	<p>A smaller slip would be impracticable given Jordan Cove's multi-user concept, which would require enough space for three berths, including one for LNG vessels, one for tugs and escort boats, and a potential future west side berth for other commercial ships, assuming the Oregon International Port of Coos Bay (Port) follows through on its plans to provide for large deep-draft container ships</p>	<p>It appears reasonable to conclude that the Port's multi-use concept is dependent on the Jordan Cove slip design. Development of Henderson Marsh would not be viable without a slip designed to accommodate a west berth. That would seem to indicate that plans for the west berth and future port development plans are interdependent. This could necessarily expand the scope of the project.</p> <p>Scope, for the purposes of NEPA, is defined at 40 CFR 1508.25. According to that section:</p> <p>"Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (Secs.1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:</p> <p>(a) Actions (other than unconnected single actions) which may be:</p> <ol style="list-style-type: none"> 1. Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they: 	<p>We recommend the FEIS analyze whether future port expansion at Henderson Marsh is viable without the west berth.</p> <p>If it is determined that future development is not viable, without the west berth, the FEIS should analyze impacts associated with the Port's proposed use of the west berth and any expansion into Henderson Marsh consistent with 40 CFR 1508.25.</p>
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FA6-15

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FA6-15 See FERC Office of Energy Project's Memorandum to FERC Secretary dated February 25, 2015 placing into the record the Corp's February 12, 2015 email inquiry and Jordan Cove's February 24, 2015 response, related to the design of the terminal marine slip and its single use purpose (Accession No. 20150226-0064).

FA6-15 cont.	<p>(i) Automatically trigger other actions which may require environmental impact statements.</p> <p>(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.</p> <p>(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.</p>	<p>As noted above, the Port's proposed use of the west berth raises a question about the independence of this project from the Jordan Cove Project. If the project would not be feasible without access to the west slip, it should be considered interdependent.</p>	<p>We recommend the FEIS analyze whether future port expansion at Henderson Marsh is viable without the west berth.</p> <p>If it is determined that future development is not viable without the west berth, the FEIS should analyze impacts associated with the Port's proposed use of the west berth and any expansion into Henderson Marsh consistent with 40 CFR 1508.25.</p>
FA6-16	<p>(i) Automatically trigger other actions which may require environmental impact statements.</p> <p>(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.</p> <p>(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.</p>	<p>This characterization of potential acreage impact is not consistent with later descriptions of the Principle Power project (see comments that follow).</p>	<p>We recommend that table 4.14.2.3-1 and the subsequent analysis be revised to reflect potential acreage impacts associated with laydown and construction for the Principle Power project.</p>
FA6-17	<p>(i) Automatically trigger other actions which may require environmental impact statements.</p> <p>(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.</p> <p>(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.</p>	<p>Given the establishment of the 2012 agreement with the Port, and the dedication of funding from the U.S. Department of Energy, we believe the Principle Power project, its use of west berth, and its use of Henderson Marsh should be analyzed as reasonably foreseeable.</p>	<p>We recommend the FEIS analyze whether the Principle Power Windfloat Project (assembly and haul-out) would be viable without development of the west berth.</p> <p>If it is determined that the Principle Power project is not viable without the west berth, the FEIS should analyze impacts associated with the Port's proposed use of the west berth.</p>
FA6-18	<p>(i) Automatically trigger other actions which may require environmental impact statements.</p> <p>(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.</p> <p>(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.</p>	<p>In 2012, Principle Power entered into an agreement with the Port to lease the western berth of Jordan Cove's marine slip for an assembly area for its turbines, before they would be towed to the open ocean. That assembly area would cover</p>	<p>The Port's proposed Oregon Gateway Marine Terminal Complex would use the west side of the Jordan Cove marine slip for various purposes: either a cargo terminal, coal export terminal, or intermodal container terminal...The conceptual design for the intermodal container terminal would cover about 293 acres of wetlands at Henderson Marsh.</p>

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- FA6-16 The proposed action under this NEPA analysis includes a single-use slip and access channel that solely supports LNG operations. The 800-foot slip width would be needed in order to be able to move an LNG vessel off of the LNG berth on the east side of the slip in the event of an incident within the LNG upland facilities that might threaten the safety of the LNG vessel at berth. We are not aware of any clients for future Port expansion, therefore, there are no foreseeable actions related to Port expansion to analyze in section 4.14.
- FA6-17 The Coast Guard has determined that the entire 800-foot marine slip would be needed for the safe operation of the terminal. Without the use of the LNG terminal, it is unclear how Principle Power would operate or how many acres would be affected.
- FA6-18 Analyzing the viability of the Principle Power project without the availability of the west berth is beyond the scope of this analysis.

<p>Section 4.14.3.1 Land Use Page 4-1021</p>	<p>about 33 acres of wetlands at Henderson Marsh.</p> <p>At this time, no developer has approached Jordan Cove with a request to use the western berth. Therefore, it is not likely that the western berth would be developed any time in the near future.</p>	<p>The 2012 agreement with the Port also raises a question about the independence of this project from the Jordan Cove Project. If the project would not be feasible without access to the west slip, it should be considered interdependent.</p> <p>We appreciate that Jordan Cove has not been approached with a request to use the western berth. However, based on Port initiatives and agreements noted above, it does not appear reasonable to assume that the west berth would not be developed in the near future. Further, we believe timing (near future versus longer term) is a secondary issue. In terms of assessing impact, the key question is whether the proposed sizing of the slip will make it possible for future development of Henderson Marsh that would be otherwise unfeasible.</p>	<p>FA6-18 cont.</p> <p>berth and any expansion into Henderson Marsh consistent with 40 CFR 1508.25.</p>
<p>Section 2.1.1.14 Temporary Construction Use Areas Page 2-30</p>	<p>Jordan Cove proposes to construct a temporary workers camp, the North Point Work Force Housing Project, on 48 acres north of the City of North Bend, on the south side of the McCullough Bridge. After the terminal is completed, that camp would be disassembled and removed, and the area restored to its previous condition and use.</p>	<p>The North Point Work Force Housing Project is discussed within the DEIS, but it is not thoroughly analyzed. A number of questions remain about the facility and its potential impacts. Detail is needed regarding infrastructure requirements; the number of temporary houses; when those houses would be disassembled and removed, and how the site would be restored.</p>	<p>FA6-19</p> <p>We recommend the FEIS include additional discussion about the utility of the west berth in the context of the Jordan Cove project (i.e. is it a critical component of the LNG terminal, or is it primarily a separate and independent utility that would be used by the Port of Coos Bay). If the wider slip is not a key component of the LNG facility, and if other Port projects cannot or will not proceed unless the west berth is built, the west berth and its associated projects should be analyzed within the scope of the project pursuant to CFR 1508.25.</p>
<p>Section 2.1.1.14 Temporary Construction Use Areas Page 2-30</p>	<p>Jordan Cove proposes to construct a temporary workers camp, the North Point Work Force Housing Project, on 48 acres north of the City of North Bend, on the south side of the McCullough Bridge. After the terminal is completed, that camp would be disassembled and removed, and the area restored to its previous condition and use.</p>	<p>The North Point Work Force Housing Project is discussed within the DEIS, but it is not thoroughly analyzed. A number of questions remain about the facility and its potential impacts. Detail is needed regarding infrastructure requirements; the number of temporary houses; when those houses would be disassembled and removed, and how the site would be restored.</p>	<p>FA6-20</p> <p>We recommend the FEIS provide additional detail and analysis of the North Point Work Force Housing Project (NPWFHP).</p> <p>Please provide detail on the number of housing units to be installed, and the dimensions of the site (including distance from the Bay) and siting criteria applied to demonstrate avoidance or minimization of potential wetland fill.</p> <p>Please provide additional detail with regard to how JCPC will collect and manage sanitary waste; solid waste; wastewater; and stormwater.</p> <p>With regard to stormwater, any construction activity or project that disturbs one or more acres of ground must receive coverage under a Construction Activity General NPDES</p>

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- FA6-19 Regardless of any agreements the Port may have, the Coast Guard has determined that the entire 800-foot marine slip would be needed for the safe operation of the terminal.
- FA6-20 FEIS text has been revised. A Stormwater Pollution Prevention Plan is being developed in coordination with DEQ to support 401 WQ Certification and will be in compliance with 401, NPDES, 404, and ESA. All temporary infrastructure would be removed from the site upon completion of the Project. The bridge, entrance roadway, and parking areas would remain for use by the current land owner.

<p>Section 2.4.1.1 North Point Workforce Housing Complex Page 2-93</p>	<p>Development of the North Point site would occur in two phases. Phase 1 would develop the east side of the property including the roadway, access improvements, utility corridor, and bridge crossing to the west side. Phase 2 would involve the installation of the housing units and central accommodation facilities on the west side, as well as parking on the east side.</p>	<p>Additional detail is needed on the proposed parking infrastructure.</p>	<p>permit to discharge storm water. We recommend that coordination with ODEQ on the establishment of a NPDES general permit for the NPWFHP site be included as a term within FERC's Order.</p> <p>Please provide detail regarding site restoration post construction. What is the timeframe for restoration? Would the site be decompacted and replanted? If so, what species/densities would be utilized? Would all temporary infrastructure be removed? Would the bridge between the housing area and the parking area remain as a permanent structure, or would it be removed?</p> <p>Please discuss how the parking area will be developed/surfaced and how surface water runoff from the parking area will be managed. As noted above, this project will be subject to a Construction Activity General NPDES permit.</p>	<p>FA6-20 10/1</p>
<p>Section 2.2.3 Southwest Oregon Regional Safety Center Page 2-77</p>	<p>The SORSC would occupy approximately 8 acres on the east side of Jordan Cove Road, between the Trans-Pacific Parkway and the Roseburg Forest Products property, west of the South Dunes Power Plant. The building would house the Jordan Cove Fire Company, offices for the Coos County Sheriff, Coast Guard, and the Port, and a training facility for the southwestern Oregon Community College. Although this building does not come under the</p>	<p>We do not find that the site for the Southern Oregon Resource Safety Center (SORSC) was rigorously evaluated with respect to potential impacts to wetlands.</p>	<p>We recommend that the FEIS provide a more thorough and objective evaluation of this facility location based on a set of siting criteria to demonstrate avoidance or minimization of potential wetland fill. Siting criteria for the SORSC should consider factors such as overall environmental impacts, site access, existing infrastructure, and public safety.</p>	<p>FA6-21 10/1</p>

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- FA6-21 Jordan Cove is preparing a Stormwater Pollution Prevention Plan in coordination with ODEQ to support 401 WQ Certification and will be in compliance with 401, NPDES, 404, and ESA. The parking area would be surfaced with gravel.
- FA6-22 Impacts to wetlands from the SORSC were included in the wetland impact calculations reported in the EIS. The avoidance and minimization of impacts to wetlands will be addressed as part of the Army Core 404 and 401 permit process. Furthermore, the SORSC is a non-jurisdictional facility (i.e., it is not under the jurisdiction of FERC) and would be dealt with during the State's EFSC process.

	<ul style="list-style-type: none"> • Use of dust control measures water sprays and dust suppressants, and • Stabilizing areas disturbed by construction. 		<p>speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.</p> <p>Mobile and Stationary Source Controls:</p> <ul style="list-style-type: none"> • Reduce use, trips, and unnecessary idling of heavy equipment. • Maintain and tune engines per manufacturer's specifications to perform EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies. Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications. • Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations • If practicable, lease new, clean equipment meeting the most stringent of applicable Federal or State Standards.
<p>Hazardous Substances Section 4.3.2.3 Temporary Storage Yards; Potentially Contaminated Groundwater Sites; Page 4-327</p>	<p>...the Pacific Connector Pipeline Project would impact nine sites investigated by the ODEQ for the release of hazardous substances into the site's environment. Of those nine sites, an online review of site notes shows that ODEQ has determined that four of those sites require no further action. The remaining five sites, as shown in table 4.3.2.3-2, potentially contain</p>	<p>The DEIS states that prior to the end of the comment period on the DEIS, a plan would be developed detailing how the contaminated sites would be avoided or contaminants would be removed (DEIS pg. 4-327). We concur with this recommendation. Information about how contaminants would be avoided or removed is critical to determining the viability of the</p>	<p>The FEIS should include a robust discussion of how any contaminants on sites identified in Table 4.3.2.3-2 would be avoided or removed. Included in that, consistent with FEIC recommendations, should be a discussion of material handling and transport, as well as measures taken to protect human health, worker safety, and the environment.</p>

FA6-24 cont.

FA6-25

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FA6-25 Comment noted. As noted in Table 4.3.2.3-2, many of these sites indicate that no further action is required in relation to clean-up. Additional information is presented in the EIS regarding how contamination would be handled at each of the 5 ECSI sites.

<p>Socioeconomics Section 4.9.1.1 Population Page 4-788</p>	<p>hazardous substances. Four of those sites are proposed as contractor/pipe storage yards; the fifth site on Jordan Point would contain the Jordan Cove Meter Station, the pipeline from MP1.5R-1.64R, a TEWA, and a pipeyard.</p>	<p>proposed route and providing a reasoned choice amongst alternatives.</p>	<p>FA6-25 cont.</p>
<p>Indirect Impacts/GHGs 1.4.4 Issues Considered Outside the Scope of this EIS</p>	<p>At the peak of construction, the single non-local workforce (about 1,900 people without families factored in) would represent about 3 percent of the Coos County population. We conclude that population increases in Coos County directly related to the Jordan Cove project construction would be temporary and short term. Construction would last less than four years. We believe the county has the capacity to absorb an average of about a 3 percent increase in population over a four-year period without significant adverse effects on local communities and public services</p>	<p>Given the establishment of the North Point workers camp, it is likely that much of this workforce would locate within North Bend, OR. The FEIS should downscale the analysis of impact from the county scale to the local scale. As of the census of 2010, there were 9,695 people in North Bend. An increase of 1,900 people would represent a nearly 20% increase in the local population.</p>	<p>FA6-26</p> <p>We recommend the FEIS consider the extent to which local schools and services (particularly those within the community of North Bend) could absorb this population.</p>
<p>Indirect Impacts/GHGs 1.4.4 Issues Considered Outside the Scope of this EIS</p>	<p>Examples of out-of-scope issues include the need to export LNG; horizontal hydraulic drilling through shale formations during exploration for natural gas (often referred to as "fracking"); induced</p>	<p>We recognize the challenge of attributing development of natural gas resources to one export project. Nevertheless, both the Department of Energy (DOE) and the FERC have recognized that an expansion of LNG exports</p>	<p>FA6-27</p> <p>We continue to recommend discussing these potential impacts at a conceptual level by incorporating the results of the DOE study "Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the</p>

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- FA6-26 The FEIS discussion has been revised.
- FA6-27 The project involves building a terminal and associated pipeline. Analyzing how this project would affect natural gas production in the US is beyond the scope of this analysis. As explained in section 1.4.4 of the DEIS, regulation and production of natural gas are not activities regulated by FERC.

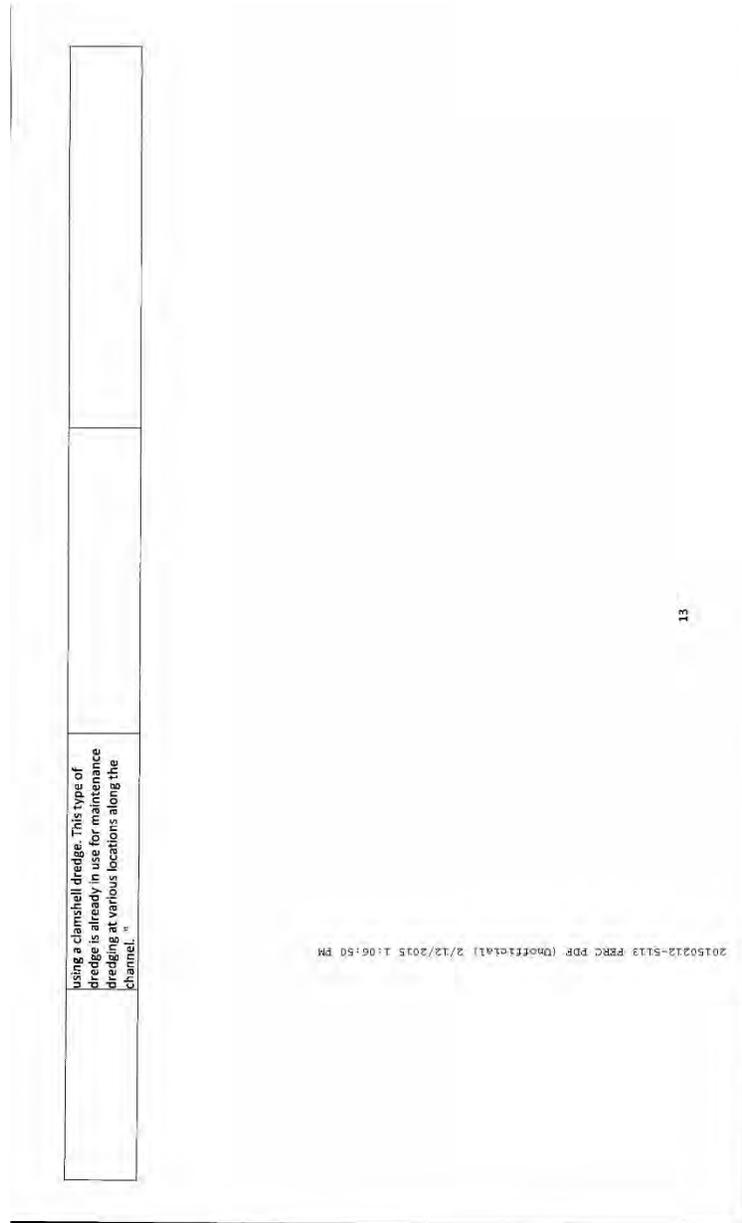
Section 3.1; Page 15	The DEIS states, "The Marine Protection, Research, and Sanctuaries Act (MPRSA) regulates the transportation and placement of dredged material to the ocean."	This wording should be revised.	The DEIS should say, "The Marine Protection, Research, and Sanctuaries Act (MPRSA) regulates the transportation of dredged material for the purposes of dumping it in the ocean."	FA6-32
Table 5-1; Page 47 of 91	The DEIS states for Site H, "No - Restricted to finer-grained sands and silts from above RM 12."	Please note that the material that is dumped at Site H is not restricted to dredged material from above RM 12. Site H is appropriate for finer-grained sands and silts, anywhere in Coos Bay.	The DEIS should say, "Site H restricted to finer-grained sands and silts."	FA6-33
Table 5-1; Page 47 of 91	The DEIS states for Site E, "No - Site is closed and not accepting new material."	Site E is not "closed". For a dredged material disposal site to be considered "closed", EPA would need to conduct formal rulemaking that would de-designate the site. Site E has a history of mounding which could cause adverse impacts to navigation. Thus, the use of Site E is heavily restricted.	The DEIS should say, "Site E is not accepting new material."	FA6-34
Section 5.3.1.1; Page 49 of 91	The DEIS states, "It is the largest of the Coos Bay ODMDS and is used by the USACE for the placement of clean sand and silt removed as part of maintenance dredging activities from below RM 12 in the Coos Bay Navigation Channel."	The USACE dumps clean sand at Site F. Site F is not suitable for silt.	The DEIS should say, "It is the largest of the Coos Bay ODMDS and is used by the USACE for the placement of clean sand removed as part of maintenance dredging activities from below RM 12 in the Coos Bay Navigation Channel."	FA6-35
Section 5.3.1.1; Page 49/50 of 91	The DEIS states, "Appropriate material for disposal in Site F consists of clean sand and silt from below RM 12 that is suitable for ocean disposal."	Site F is suitable for disposal of clean sand (not silt), and can be from above or below RM 12.	The DEIS should say, "Appropriate material for disposal in Site F consists of material that is predominantly clean sand that is suitable for ocean disposal. In the Coos Bay estuary, this is usually material below RM 12, but not necessarily."	FA6-36
Section 5.3.1.2; Page 50 of 91	The DEIS states, "Capacity of the site is not defined but is adequate for the volume of dredged material (M. Sijpob, USACE - Portland District, Personal Communication, February 15, 2006). However, there is probably an upper level limit to the	Site capacity has potentially changed since these personal communications occurred.	We recommend that Jordan Cove conduct a capacity estimate based on current Corps disposal average volumes, and the amount of material the Corps and Jordan Cove would need to place at Site F.	FA6-37

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- FA6-32 Material dredged during maintenance and issues with proposed disposal are addressed in Chapter 2 of the FEIS. This comment appears to be in relation to the applicant's draft Slip and Access Channel Excavated & Dredged Material Management Plan, not EIS text.
- FA6-33 Material dredged during maintenance and issues with proposed disposal are addressed in Chapter 2 of the FEIS. This comment appears to be in relation to the applicant's draft Slip and Access Channel Excavated & Dredged Material Management Plan, not EIS text.
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FA6-37 cont.	<p>amount of material that may be placed in the portion of the site that is part of the littoral zone of the north spit (J. Malek, Personal Communication, February 27, 2006). "</p> <p>Section 5.3.1.2; Page 50 of 91</p>	<p>The DEIS states, "The Site F nearshore zone is approximately 1,055 ac in size ranging from a water depth of -60 ft MLLW to -20 ft MLLW. Up to 3.4 mcy of dredged sand could be distributed throughout the nearshore zone of Site F with an approximate depth of placed material of 2.0 ft. "</p> <p>Section 6.2.2.2; Page 74 of 91</p>	<p>The available capacity of the nearshore portion of Site F may have changed since this was written. Furthermore, EPA/USACE understanding of sediment dynamics within the nearshore portion of Site F evolves.</p>	<p>The DEIS should state "The available capacity of the nearshore portion of Site F fluctuates year-to-year based on winter storms and the volume of material disposed by the Corps. The availability of the nearshore portion of Site F would need to be closely coordinated with the Corps and their dispersal needs.</p>
FA6-38	<p>Section 5.3.1.2; Page 50 of 91</p>	<p>The DEIS states, "Although ODMDS Site E is an EPA designated site and has been historically used by the USACE for maintenance material disposal, the site was closed in 1991 due to mounding issues. No plans to reopen ODMDS Site E for dredged material disposal are anticipated in the near future. "</p> <p>Section 7.2; Page 88 of 91</p>	<p>The DEIS should state, "Although ODMDS Site E is an EPA designated site and has been historically used by the USACE for maintenance material disposal, the site has historical issues with mounding that could affect navigation. Thus, use of Site E is greatly restricted and would not be available for use for the Jordan Cove project."</p>	<p>The DEIS should state, "The available capacity of the nearshore portion of Site F fluctuates year-to-year based on winter storms and the volume of material disposed by the Corps. The availability of the nearshore portion of Site F would need to be closely coordinated with the Corps and their dispersal needs.</p>
FA6-39	<p>Section 5.3.1.2; Page 50 of 91</p>	<p>The DEIS states, "The preferred maintenance dredging material management alternative for the POCB Slip and Access Channel EDMIMP is placement offshore in ODMDS Site F. ODMDS Site F is in close proximity to the entrance to Coos Bay and has sufficient capacity to accommodate all maintenance material that will be dredged for well over the first 50 years after construction is complete. Additionally, placement in Site F allows maintenance dredging to be conducted</p>	<p>The DEIS stated earlier that the dredged material from maintenance activities will be primarily silt and clay. Site F is not suitable for silt and clay</p>	<p>The DEIS should consider the need for use of Site H, or a newly designated ocean disposal site, if material dredged for maintenance of the slip and access channel is finer-grained sand, silt, or clay.</p>
FA6-40	<p>Section 5.3.1.2; Page 50 of 91</p>	<p>The DEIS states, "The preferred maintenance dredging material management alternative for the POCB Slip and Access Channel EDMIMP is placement offshore in ODMDS Site F. ODMDS Site F is in close proximity to the entrance to Coos Bay and has sufficient capacity to accommodate all maintenance material that will be dredged for well over the first 50 years after construction is complete. Additionally, placement in Site F allows maintenance dredging to be conducted</p>	<p>The DEIS stated earlier that the dredged material from maintenance activities will be primarily silt and clay. Site F is not suitable for silt and clay</p>	<p>The DEIS should consider the need for use of Site H, or a newly designated ocean disposal site, if material dredged for maintenance of the slip and access channel is finer-grained sand, silt, or clay.</p>

- FA6 Continued, page 16 of 17**
- FA6-38 Material dredged during maintenance and issues with proposed disposal are addressed in Chapter 2 of the FEIS. This comment appears to be in relation to the applicant's draft Slip and Access Channel Excavated & Dredged Material Management Plan, not EIS text.
 - FA6-39 Material dredged during maintenance and issues with proposed disposal are addressed in Chapter 2 of the FEIS. This comment appears to be in relation to the applicant's draft Slip and Access Channel Excavated & Dredged Material Management Plan, not EIS text.
 - FA6-40 Material dredged during maintenance and issues with proposed disposal are addressed in Chapter 2 of the FEIS. This comment appears to be in relation to the applicant's draft Slip and Access Channel Excavated & Dredged Material Management Plan, not EIS text.



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FA7

FA7

United States Department of the Interior, Office of the
Secretary, Office of Environmental Policy and Compliance



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
620 SW Main Street, Suite 201
Portland, Oregon 97205-3026

IN REPLY REFER TO:
5943.1
ER14/0717

Electronically Filed

February 13, 2015

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, D.C. 20426

Subject: Review of Draft Environmental Impact Statement for the Jordan Cove
Liquefaction and Pacific Connector Pipeline Projects; Project Nos. CP13-483-
000, and CP13-492-000; Coos, Douglas, Jackson, and Klamath Counties, Oregon

Dear Ms. Bose:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Jordan Cove Liquefaction and Pacific Connector Pipeline Projects (Project); Project Nos. CP13-483-000 and CP13-492-000; Coos, Douglas, Jackson, and Klamath Counties, Oregon. The Bureau of Land Management (BLM), Bureau of Reclamation, and Fish and Wildlife Service (FWS) participated as cooperating agencies in the preparation of the DEIS, and significant progress has been made to avoid, minimize, and mitigate potential impacts to natural resources. Many of the Department's previously-raised concerns have been addressed within the DEIS and other recent documents, and therefore will not be mentioned here. The details of the FWS's remaining comments on the DEIS are in the attached table. The Department reserves the right to comment further on issues raised herein, or on additional issues associated with the proposed Project as new or different information becomes available in the future.

The Department appreciates the opportunity to comment and the collaborative effort undertaken by FERC, the Project proponents, the resource and land management agencies, and FERC's third-party contractor to address these complex issues. We look forward to continuing this collaborative work to ensure the Project results in a net benefit for our nation's environmental and energy resource needs.

If you have any questions regarding the comments in the attached table, please contact Doug Young, Energy Program Manager, Oregon Fish and Wildlife Office, at (503) 231-6179. If you have any other questions or concerns, please feel free to contact me at (503) 326-2489.

Sincerely,

Allison O'Brien
Regional Environmental Officer

Jordan Cove and Pacific Connector Pipeline Project U.S. Fish and Wildlife Service (FWS) Comments on November 2014 Draft EIS			FWS Comments	
Comment No.	DEIS Page	Paragraph	DEIS Topic Area or specific wording	
1	2-74		<p>BMPs Throughout Project Area A table was added to Chapter 2 of the DEIS that lists each Plan of Development (POD). The preamble to the table states: "The actions and measures that will be applied to the PODs included in this POD. The POD is a plan of development and proposed action on federally administered lands and facilities and would be made a part of the Right-of-Way Grant...."</p>	<p>Pacific Connector has previously indicated to FWS that they will apply all applicable POD best management practices (BMPs) across all landownerships, not just Federal lands, as a means to consistently minimize Project impacts.</p> <p>The FWS therefore requests more clarity in the FEIS on what conditions/BMPs apply to lands (whether Federal or non-Federal) across the Project.</p> <p>Please either:</p> <ol style="list-style-type: none"> 1. edit the POD preamble to meet Pacific Connector's commitment to following the POD BMPs across all landownerships (see recommended wording below) or 2. amend the FEIS to clarify that the POD BMPs will be consistently applied across all land ownerships, the FEIS should provide a non-Federal lands BMPs section so readers can understand any differences between BMPs applied to Federal vs. non-Federal lands. <p>Recommended new text (in <i>italics</i>): "Pacific Connector's right-of-way application to the BLM included a POD. The POD is a detailed description of the proposed action on federally administered lands and facilities and would be made a part of the Right-of-Way Grant. <i>Pacific Connector has committed to following the POD conditions on non-Federal lands as well.</i>"</p>
2	5-27		<p>Jordan Cove and Pacific Connector Environmental Inspectors 8. Jordan Cove and Pacific Connector shall employ a team of EIs, including at least one EI at the LNG terminal and two or more per pipeline spread. The EIs shall be:</p>	<p>The FWS is concerned there is conflicting information in DEIS on what BMPs or other conditions will be followed based on different types of land status and ownership. As the Project moves towards construction, as well as during the construction and restoration phases, it is critical that the Environmental Inspector (EI) understand the action/BMPs to be followed by Pacific Connector on every stretch of the project, regardless of land ownership. Project BMPs/conditions are currently found in draft form within several Project documents, including the PODs, the Compensatory Mitigation Plan (CMP), and the draft Biological Assessment (BA) (note that we have not received the final BA yet – see comments below). These</p>

FA7-1

FA7-2

FWS Comments on ICPC DEIS

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FA7 Continued, page 2 of 12

FA7-1 Text clarified in FEIS.

FA7-2 The FERC BA was submitted to the FWS on February 24, 2015. We do not see the need for changes to our standard condition for this EIS. That condition has worked successfully on many previous FERC-regulated projects that were constructed. We will employ a third-party contractor to monitor construction of the Pacific Connector pipeline and make certain that all BMPs are followed.

FA7-2 cont.	<p>BMPs/conditions will be updated and finalized in several different Project documents, including the Final Environmental Impact Statement and (upon completion of ESA consultation) within the Biological Opinion and Incidental Take Statement.</p> <p>To clarify conditions/BMPs that Pacific Connector will apply to lands across the Project, and the EI will provide consistent and comprehensive oversight for, the FWS requests the following FERC recommendation (in <i>italics</i>) be added as a new sub-bullet for 6:</p> <p>The EIs shall be: <i>"provided with an overarching BMP tracking tool (ideally a GIS-linked digital document), that consolidates BMPs and other required conditions from all pertinent documents (Resource Reports, PODs, CMP, FES, BA, BO, 404 application, etc.) to indicate what actions/BMPs/conditions are to be followed at each location, regardless of land ownership, throughout the Project area."</i></p>
FA7-3	<p>The FWS has concerns regarding stream crossing designs associated with access roads. Significant long-term impacts could occur post-construction to stream channels from modification of existing access road stream crossings or construction of new access road stream crossings.</p> <p>Please place the following new text (in <i>italics</i>) into page 4.402-403 of FES:</p> <p><i>"For all modified existing or new access road waterbody crossings on Federal and non-Federal lands that will require work within perennial, intermittent or ephemeral streams, the access road waterbody crossing designs should be based on principles of stream simulation (USFS 2008), and thereby ensure long-term stream channel stability and functionality."</i></p>
FA7-4	<p>Please include the following wording (new text in <i>italics</i>) regarding specialized stream channel training for EIs/technical support staff. This new wording is consistent with FERC requirements for river channel training and expertise for EIs/technical support staff (e.g., see DEIS page 4.402, third paragraph).</p> <p><i>"Many of these actions would be determined prior to construction based on results of the pre-construction survey"</i></p>

FWS Comments on JCPC DEIS

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FA7 Continued, page 3 of 12

- FA7-3 The applicant will need to obtain permits from the state and federal government for road stream crossings where construction would occur. The state and federal permits will designate what requirements will be needed for stream crossings designs. Additionally the applicant has developed plans to insure culvert crossings are meeting water quality and flow needs (see PCGP response to FERC data request number 23 of February 2015 "Culvert Crossing Best Management Practices").
- FA7-4 Change made as requested.

FA7-4 cont.

5	4-808	<p>Waterbody Crossings</p> <p>Last paragraph recommended that:</p> <ul style="list-style-type: none"> • Prior to the end of the comment period on the draft EIS, Pacific Connector should file with the Secretary individual stream crossing designs for stream crossings that: a. support or are assumed to support federally listed fish species and are rated by the FWS matrix evaluation methods as having either a high stream response potential and moderate project impact potential, or a moderate stream response potential and high project impact potential, or b. are of special concern to the BLM and the stream crossing could be a critical habitat for a species. The design should be based on site specific information for each of these crossings including stream characteristics, bank conditions, and riparian habitat." (emphasis added) 	<p>(see below) and determined by an EIS/staff trained in recognizing and observing river channel processes."</p> <p>The FWS provides the following comments on the DEIS' treatment of waterbody crossings, last paragraph page 4-808, and the response:</p> <ol style="list-style-type: none"> 1. Delete reference to "support or are assumed to support federally listed fish species." Waterbody crossing designs for all individual streams ranked as high/moderate or moderate/high should be developed by Pacific Connector and submitted to FERC regardless of the presence of Federally-listed fish species. 2. The FWS recommends that Pacific Connector submit an overarching, project-wide plan for waterbody crossings, as study by the FWS. The plan should be comprehensive Project Waterbody Crossing Plan. As part of the overarching Project Waterbody Crossing Plan, Pacific Connector should use standardized stream crossing designs (grouped by category and project type) for stream crossings that are rated by the FWS matrix evaluation methods as having either a moderate stream response potential and moderate project impact potential, or a high stream response potential and low project impact potential, or a low stream response potential and high project impact potential. 3. The FWS recommends FERC require a qualified technical expert to assist the EIS during streambank and uplope restoration activities, to ensure stream channel processes are appropriately addressed. This requirement is consistent with EIS-related requirements specified in DEIS for streambed stratigraphy on page 4-802, and for the pre-construction surveys on page 4-802. 4. The May 2013 GeoEngineers risk assessment report should be updated and submitted to FERC before the FEIS to address the high/moderate and moderate/high crossings, per the FERC waterbody crossing recommendation on page 4-808 of DEIS. The FEIS should summarize any new information contained in the updated stream channel risk report.
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FA7-5

FWS Comments on JCPC DEIS

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FA7 Continued, page 4 of 12

FA7-5

The applicant has updated the Stream Crossing Risk Analysis (PCGP February 13, 2015) and consulted with USFWS (Janine Castro February 11, 2015) concerning the evaluation of pipeline stream crossing. They have developed crossing designs for those streams considered of risk based on the USFWS Pipeline Screening Risk Matrix, for sites they had access too. This analysis was done for stream crossing for the whole route independent of fish present. They also have developed a hosts of actions (see new report) that would be taken at sites depending on site specific conditions that would be determined prior to construction. They have included input for sites of concerns on BLM and Forest Service lands in the assessment and designs. They will conduct surveys of streams that currently do not have access to once they obtain permission to finalize the risk status and proceed appropriately as done at accessible sites. They have developed a monitoring plan for the crossing sites as well to determine where issues may arise post construction and indicated they would take remedial actions if needed based on permit requirements. Other specifics requirements for the crossings will be made through the state and federal permitting process. Updated information has been included in the EIS text.

6	4-504	first	<p>Migratory Birds Therefore, we recommend that: • Prior to the end of the comment period on the draft EIS, Jordan Cove and Pacific Connector should each file with the Secretary a copy of their <i>Migratory Bird Conservation Plan</i>, and documentation that the plans were developed in consultations with the FWS.</p>	<p>The FWS has had some interactions with Pacific Connector regarding development of a Migratory Bird Conservation Plan. We have not had any recent interactions with Jordan Cove regarding development of a Migratory Bird Conservation Plan. We understand that Pacific Connector is developing a single Plan for all Project components, and we have received commitment from the Project that a draft Plan would be shared with the Service before the Project files the Plan with FERC. However, the FWS has yet to receive or review a draft Plan, so that we can determine whether the Plan is developed in a way that is quite possible that substantial work will be required to develop a complete Plan.</p> <p>The FWS looks forward to reviewing the initial draft Plan, and working with both Jordan Cove and Pacific Connector on finalizing the details of the Migratory Bird Conservation Plan, hopefully before the FEIS. The FWS recommends, when the Project's comprehensive Migratory Bird Conservation Plan has been reviewed by FWS and finalized in an acceptable fashion, that the Plan is fully incorporated into the FEIS.</p>	FA7-6
7	4-481	last	<p>Timber Clearing- Marbled murrelet (MAMU) and Northern spotted owl (NSO) During the timber clearing within one quarter mile of occupied MAMU stands, would occur during the critical nesting season (April 1 to August 31), with daily restrictions through September 15 (activities occurring only between 2 hours after sunrise to 2 hours before sunset). Pacific Connector would not clear areas in active NSO nest patches and within one-quarter-mile buffers until after the entire nesting season (March 1 to September 30) in Year One."</p>	<p>The current wording on page 4-481 is inconsistent with timber clearing commitments identified in the DEIS and/or other Pacific Connector documents, and could result in an increase in impacts to ESR-listed species.</p> <ol style="list-style-type: none"> DEIS page 4-521 indicates a conflict between migratory bird habitat clearing and MAMU and NSO timber clearing on page 4-481: "Take of migratory bird occupied nests, eggs, pre-fledging young, and potentially adults would be minimized on Construction Spreads 1 through 4 (see chapter 2), which would be cleared of timber between October and March during the nesting season to minimize effects to NSO and MAMU nest sites, as well as." Information from Pacific Connector in April 2014 Revised draft BA, 4-134 is in conflict with DEIS page 4-481: "Pacific Connector will remove forested habitat within 300 feet of an occupied stand, unoccupied stand, or presumed occupied stand outside of the entire breeding season to eliminate direct impact to individual MAMUs or nestlings. Timber will be removed beginning fourth quarter 2015, and if necessary, continue the following fall and thereafter as needed." 	FA7-7

FWS Comments on ICPC DEIS

4

FA7 Continued, page 5 of 12

- FA7-6 Comment noted. Please note that Jordan Cove Energy and Pacific Connector's Migratory Bird Conservation Plan was filed on February 13, 2015.
- FA7-7 Text has been revised.

FA7 Continued, page 6 of 12

FA7-7
cont.

<p>breeding season. This includes habitat that would be removed or potentially removed from 25 MAMU stands (14 occupied, two unoccupied, and nine presumed occupied stands). Habitat will also be removed within 0.25 mile of a northern spotted owl activity center outside of the breeding season (from October 1 through February 28); within the range of the MAMU, this includes forested habitat between MPs 37.35 and 37.87 and MPs 64.00 and 64.40. Elsewhere in the range of the MAMU, timber removal will be expected during the breeding season, however, direct effects to MAMUs or nestlings would not be expected because suitable nesting habitat would have been removed outside of the breeding season."</p>	<p>Please edit the current DEIS, page 4.481, to indicate Pacific Connector will avoid clearing timber within MAMU stands and 100 meter buffer around these stands during the full MAMU breeding season. The FWS recommends replacing this text with the following: (new text in italics):</p>	<p>April 2014 Draft EA as follows (new text in italics):</p> <p>"Pacific Connector will remove forested habitat within 100 meters of a MAMU stand (or Suitable Habitat Unit) outside of the entire MAMU breeding season to eliminate direct impact to individual MAMUs or nestlings.</p> <p>Elsewhere in the range of the MAMU but outside of MAMU stands or SHUs, timber removal would be expected during the breeding season, however, direct effects to MAMUs or nestlings would not be expected because suitable nesting habitat would have been removed outside of the breeding season.</p> <p>Timber removal is expected to occur during Year 1 of the Pacific Connector construction window; however, if timber removal is not completed prior to MAMU breeding season (April 1), timber removal would continue later in Year 1 and early in Year 2, outside of the MAMU breeding season (between September 16 and March 31).</p> <p>Habitat removal within 0.25 miles of a NSO activity center will</p>
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FWS Comments on JCPC DEIS

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8	4-481	Last	<p>Helicopter Use and Blasting – NSO "Powerline construction, including helicopter use, is planned from April 1 through November 30 on Spreads 2 through 4 within NSO nest patches and buffers without application of seasonal timing restrictions."</p>	<p>occur outside of the breeding season (from October 1 through February 28) whether in Year 1 or in Year 2."</p> <p>The DEIS indicates helicopter and blasting activities would occur in the NSO critical breeding period. This information is not consistent with the FWS' Pacific Connector project plan that helicopter use and blasting activities would only be allowed during the NSO late breeding season. Examples of Pacific Connector's helicopter and blasting commitments from their April 2014 Revised Applicant Draft BA:</p> <ol style="list-style-type: none"> Page 4.235: "Adverse effects to the three NSO activity centers could occur from rotor wash of large helicopters during pipe delivery for construction of the proposed action since it may be within 200 feet of nest trees and potentially within 50 feet of each activity center. The project will incorporate for each activity center, including known 23178: <i>Helicopter use would only occur after the critical breeding season (after July 15), minimizing risk to NSO.</i>" (emphasis added); and Page 4.278: "Noise from blasting and helicopter use within 0.25 mile of NSO sites during the late breeding season would occur and could increase the risk of predation to fledglings that are generally not as able to escape as adults during the later part of the breeding season." (emphasis added). <p>Please replace the current DEIS sentence, page 4-481, to read as follows (new text in <i>italics</i>):</p> <p>"<i>Helicopter use and blasting would only occur after the critical breeding season (after July 15), minimizing risk to NSO. Noise from blasting and helicopter use within 0.25 miles of NSO sites during the late breeding season would occur and could impact NSO.</i>"</p>
9	4-523	last	<p>Timber Clearing - MAMU and NSO "Pacific Connector would not clear timber within a 0.25-mile radius from MAMU stands from April 1 through August 31 or within a 0.25-mile radius from a NSO nest patch from March 1 through July 15."</p>	<p>Please edit this statement to be consistent with Pacific Connector's commitments and FWS Comment #7 above, to avoid timber clearing during the MAMU and MAMU breeding season (from March 1 to August 31) within 0.25 miles of NSO nest patches (new text in <i>italics</i>):</p> <p>"<i>Pacific Connector would not clear timber within 100 meters of a MAMU stand (or Suitable Habitat Unit) from April 1 to</i></p>

FA7-8

FA7-9

6

FWS Comments on JCPC DEIS

FA7 Continued, page 7 of 12

- FA7-8 Text has been revised.
- FA7-9 Change made as requested.

10	4-636-713	Threatened and Endangered Species-overall	<p>September 15 or within a 0.25-mile radius from a NISO nest patch from March 1 through September 31. Outside of the 100 meter buffer for MAMU stands but within 0.25 miles of these stands, Pacific Connector would not clear timber from April 1 through August 5."</p> <p>The DEIS provides general overview and summary of threatened and endangered species impacts and mitigations, and guides reader to the BA for more specific details. However, at the time of FWS's review of the DEIS, the BA had not yet been released by FERC. Therefore, without the BA's specific information on Project impacts to ESA-listed species and critical habitats, minimization measures, and compensatory mitigation, as referenced in the DEIS, FWS cannot determine if the BA's specific information is correctly summarized in the DEIS. Therefore, FWS is unable to provide specific comments on the Threatened and Endangered Species sections of DEIS at this time.</p>	FA7-9 cont. FA7-10
11	4-636-637	MAMU terminology Occupied or Presumed Occupied Stands	<p>Per the Conservation Framework, these Occupied or Presumed Occupied (MAMU) Stands are more appropriately called Suitable Habitat Units, regardless of occupancy. This is a clarity issue that may already be addressed in BA, but it would be best for both DEIS and BA to utilize the same terminology.</p> <p>Please remove "occupied" and "presumed occupied" language and substitute with Suitable Habitat Units.</p>	FA7-11
12	4-636	Conservation Framework "Partially following direction within the Conservation Framework, Pacific Connector conducted individual assessments for each MAMU stand (occupied and presumed occupied) to evaluate and determine the type and amount of mitigation proposed to compensate for impacts from the proposed action, and presented this information in the CHMP."	<p>The FWS is concerned that the current wording "partially following direction..." could imply Pacific Connector is not working with FWS to adequately address impacts to ESA-listed species when, in fact, there has been significant collaboration, progress, and continuing conversations between Pacific Connector and the FWS.</p> <p>Please add the following sentence at the end of the third paragraph, page 4-636 (new text in <i>italics</i>):</p> <p><i>"Pacific Connector continues conversations with the FWS regarding mitigation for MAMU impacts from the proposed action, with both parties seeking resolution and agreement on a final MAMU mitigation plan."</i></p>	FA7-12

FWS Comments on JCPC DEIS

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FA7 Continued, page 8 of 12

- FA7-10 The detailed analysis for effects to listed species is provided in the FERC BA which is available on the FERC project site. The ESA section 4.7 in the EIS provides the conclusions of this BA analysis.
- FA7-11 Suitable Habitat Units are indeed discussed in the BA. Occupied and presumed occupied stands will continue to be referenced in the EIS as they reflect the site information. Occupied and presumed occupied stands are considered together in the impact analysis.
- FA7-12 Change made as requested.

13	4-539	third	<p>Conservation Framework The final Conservation Framework for the Pacific Connector is not working with FWS to adequately address impacts to ESA-listed species when, in fact, there has been significant collaboration, progress, and continuing conversations between Pacific Connector and the FWS.</p> <p>Please add the following sentence at the end of the third paragraph, page 4-539 (new text in <i>italics</i>): "Pacific Connector continues conversations with the FWS regarding the Conservation Framework. Pacific Connector is seeking resolution and agreement on a final NSO mitigation plan."</p>	FA7-13
14	4-539-629		<p>NSO sites The FWS is concerned that this statement does not show the extent of the Pacific Connector's assessment of potential impacts to NSO.</p> <p>Please add the following to match the wording/limit of the April 2014 revised EA (new text in <i>italics</i>): "Surveys conducted by Pacific Connector in 2007 identified 12 NSO pairs and a resident single but no nests. In 2008, surveys found NSO pairs at 20 locations, with two nests identified, and resident singles noted at 6 sites. In addition to NSO sites, surveys were also conducted by Pacific Connector to identify potential home ranges for raptors from BLM or USFS historic forest management actions. The surveys identified home ranges for raptors at 12 locations, with two nests identified, and resident singles noted at 6 sites."</p>	FA7-14
15	4-539	first	<p>NSO Recovery Plan and Critical Habitat DEIS references FWS 1992.</p>	FA7-15
16	4-549-650, others	multiple	<p>Bureau of Reclamation 2007/2008 references The Reclamation's Klamath Project has been consulted on since 2007/2008. The latest Klamath Project ESA consultation documents are available on Reclamation's Klamath Project website (http://www.usbr.gov/mp/klm/bsa/).</p>	FA7-16

FWS Comments on JCPC DEIS

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FA7 Continued, page 9 of 12

- FA7-13 Change made as requested.
- FA7-14 Change made as requested.
- FA7-15 Change made as requested.
- FA7-16 Change made as requested.

17	4-850	first	<p>Handling of Lost River and Shortnose Suckers: Holding of Lost River sucker (LRS): "Aeration would also be supplied and the container a sucker is placed into would be covered with a net and aerated with a portable aeration system. Fish would be retained in this solution until released upstream of the capture site unless otherwise indicated through agreement with FWS."</p> <p>Shortnose sucker (SNS): SNS section refers reader to LRS section)</p>	<p>Please replace references to BOR, 2007, or 2008 with the latest ESA consultation document references identified on Reclamation's website.</p> <p>The Handling Guidelines for Klamath Basin Suckers developed by Reclamation in 2008, as they still relevant and are employed by Reclamation. These Guidelines should be used for all waterbody crossings where LRS or SNS may be found. The DEIS's information on handling, holding, and release protocols for LRS and SNS should be updated to reflect this latest guidance.</p> <p>Please replace the first paragraph on page 4-850 with the following (new text in <i>italics</i>):</p> <p><i>"Consistent with Reclamation's, "Handling Guidelines for Klamath Basin Suckers," salvaged fish would be retained in aerated water until released upstream of the capture site unless otherwise indicated through agreement with FWS. Fish would be released at the end of the day on which they were captured or when 100 fish are in holding, whichever comes first."</i></p>	FA7-16 Cont'd
18	Page 4-850		<p>LAA determination for LRS:</p> <ul style="list-style-type: none"> "fish salvage during the Lost River crossing could result in injuring or killing fish if electroshocking is used, and stressing fish if seining is used." 	<p>Although not currently stated in the summary of possible adverse effects, holding LRS (especially longer than necessary) can also be expected to result in additional LRS stress/injuries/mortalities.</p> <p>Please add the following sentence to the existing text in the LRS Likely to Adversely Affect Determination (new text in <i>italics</i>):</p> <ul style="list-style-type: none"> <i>"The holding of salvaged Lost River sucker also can result in the stress, injury, or death of fish."</i> 	FA7-17 FA7-18
19	Page 4-852		<p>LAA Determination for SNS:</p> <ul style="list-style-type: none"> "fish salvage during the Lost River crossing could result in injuring or killing fish if electroshocking is used, and stressing fish if seining is used." 	<p>For the reasons stated above, please add the following sentence to the existing text in the SNS Likely to Adversely Affect Determination (new text in <i>italics</i>):</p> <ul style="list-style-type: none"> <i>"The holding of salvaged shortnose sucker also can result in stress, injury, or death of fish."</i> 	FA7-19

FA7 Continued, page 10 of 12

- FA7-17 Change made as requested.
- FA7-18 Change made as requested.
- FA7-19 Change made as requested.

20	4-656-686		Plants and Surveys	<p>In addition to the avoidance of any plants found by surveys, any survey results should be forwarded to FWS.</p> <p>Please include the following recommendation at the bottom of the plants section in the FEIS, page 4-686 (new text in <i>italics</i>):</p> <p><i>"Therefore, we recommend that Pacific Connector should report new plant survey results to both FWS and ODA, along with any necessary avoidance or minimization-related mitigation design changes that result from the reconstruction survey results."</i></p>	FA7-20
21	4-658	2-3	Plants - Mitigation <p>"The FWS, BLM, Forest Service, and applicant are currently working together to determine the extent to which mitigation measures beyond the BLM, Forest Service, and Kincaid's lupine. These additional mitigation actions should be included in the FEIS (or reference to these conversations should be included at a minimum).</p>	<p>Pacific Connector has had significant conversations with the FWS and has proposed additional mitigation beyond the BLM, Forest Service, and Kincaid's lupine. These additional mitigation actions should be included in the FEIS (or reference to these conversations should be included at a minimum).</p> <p>Please add the following sentence to FEIS, page 4-658 (new text in <i>italics</i>):</p> <p><i>"The FWS, BLM, Forest Service, and Pacific Connector are currently working together to determine the extent to which mitigation measures beyond the BLM, Forest Service, and Kincaid's lupine. In addition, to the BLM and Forest Service mitigation projects, Pacific Connector has proposed to provide mitigation for impacts to Applegate's milkvetch, Kincaid's lupine, and Gentner's trillium through the funding of conservation easements/land acquisitions and management/maintenance of such easements/acquisitions."</i></p>	FA7-21
22	4-658-659		Applegate's Milkvetch	<p>As a result of an ongoing Klamath Falls Airport ESA consultation, the FWS has more current information on Applegate's milkvetch populations than is provided in DEIS. The final biological opinion for the Airport action should be released in February. This latest Applegate's milkvetch information will be shared with FERC and Pacific Connector at that time, and this latest species information should be included in the FEIS/ESA consultation on the Project.</p>	FA7-22
23	4-487, 5-13, and Appen		Jordan Cove LNG Terminal Wildlife Habitat Mitigation Plan <p>"Construction of the Jordan Cove Project facilities would affect a total of about 15 acres of Category 2, 125 acres of Category 3, and 152 acres of Category 4 habitats."</p>	<p>Only 259 acres of mitigation are identified in DEIS, but it appears that at least 300 acres or more would be necessary to achieve "no net loss" and "no net loss, net benefit" standards for Category 2, 3, and 4 habitats. The FWS is concerned that</p>	FA7-23

FWS Comments on JCPC DEIS

10

FA7 Continued, page 11 of 12

- FA7-20 Change made as requested.
- FA7-21 As the FWS is aware, because these have not been filed with the FERC to date, they cannot be included in the EIS. We can discuss the fact that your agency is continuing to work with the applicant on this proposal, but until an agreement is made and the plan is provided to the FERC, no details can be included or summarized in the EIS.
- FA7-22 The FERC will include the information in the FEIS if it is provided by the FWS in a timely manner (i.e., before the publication of this FEIS).
- FA7-23 Acreage impacted has been updated, resulting in 1:1 mitigation ratio with 259 acres. Details such as uplift, duration, and monitoring of mitigation provided in Appendix S (i.e., the Habitat Mitigation Plan).

	dir. S. (left pg 4809 of 5044)		<p>Total Category 2-4 impacts add up to 266 acres. No net loss and net benefit is required for mitigating impacts to Category 2 and 3 habitats. Category 4 habitats should be mitigated at no net loss.</p>	<p>269 acres does not appear to be enough to meet the stated requirements for mitigating impacts to 266 acres. The FEIS should fully explain how the proposed mitigation results in no net loss and net benefit for 266 acres of impact. Consistent with current mitigation practices and standards, the FEIS should explain (at a minimum) how the Jordan Cove mitigation, over the life of Project impacts, will be made durable, why the mitigation will be effective, and how the mitigation is additional to other required, ongoing, or planned management activities.</p>
24	4-882 - 4-895		<p>4.12.1.4 Greenhouse Gas Emissions</p>	<p>The FEIS should provide a thorough treatment of the implications of the project's construction and operations on greenhouse gases and climate change, as well as implications on the project's impacts on habitats. The analysis should be impacted by the Project. This greenhouse mitigation change analysis in the FEIS should be consistent with recent CEQ revised draft policy guidance on how to assess climate change and greenhouse gases when conducting NEPA analyses (http://energy.gov/inepaw/downloads/revise-draft-guidance-consideration-greenhouse-gas-emissions-and-climate-change-nepa).</p>

FA7-23
cont.

FA7-24

FA7 Continued, page 12 of 12

FA7-24 See the response to CO10-3.

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IND1

INDIVIDUAL

IND1 Tim Nebergall, Veronia, OR

Tim Nebergall, Veronia, OR.
 The Jordan Cove LNG Terminal and Pipeline analysis has failed to consider the actual dangers of this project that will increase climate change problems and harm the local environment. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we have no option but to reduce our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have many, many years of life left by 2050. FERC failed to address how this massive fossil fuel project would fit into that reduction. Based on that report, this LNG project could easily tip us over into unlivable climate change.
 Natural gas is basically methane. A significant percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more harmful as a greenhouse gas than burning coal. FERC failed to consider these climate impacts of drilling and processing LNG.
 The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment. There are still no definitive studies that have been done on the results of fracking on the environment.
 FERC completely failed to address the impacts of the LNG terminal being built in the Juan de Fuca subduction zone, which completely encompasses the area far north of, and south of, Coos Bay, OR. FERC completely failed to address the disastrous environmental impact that two 80-million-gallon tanks of liquefied natural gas would have if the power plant stopped working and the back-up power also failed, as happened in Fukushima Japan and these tanks failed. Just imagine 80 MILLION GALLONS of LNG spilling over and around the area!!
 FERC failed miserably to speak to the incredible impacts of the 230-mile long pipeline needed to transport this LNG to the Coos Bay LNG Terminal. FERC refused to consider the negative impacts to over 300 Oregon landowners who are facing eminent domain. FERC falsely claimed that there is such an enormous "public interest" from this project that FERC will give the right to a foreign company to condemn Oregon land for their pipeline. Absolutely outrageous!
 FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. Are they truly serious that there is an acceptable trade for saving corporate profits by KILLING Oregonians?!?
 This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon, not to mention trees that have been growing for CENTURIES! Old growth forest IS NOT A RENEWABLE RESOURCE! It takes CENTURIES to replace trees that have been growing for centuries... this is not rocket science, it's 2nd grade math.
 Whatever you do, please, do not accept the drivel that FERC has served up as any sort of scientific ANYTHING, but rather consider the actual costs in terms of wildlife and humans that will be catastrophically impacted even if EVERYTHING GOES "PERFECTLY" according to plan.an

IND1-1

IND1-1 Climate change was addressed in section 4.14.3.12 of the draft environmental impact statement (DEIS). Greenhouse gas emissions resulting from the Jordan Cove Liquefaction and Pacific Connector Pipeline Projects (Project) were discussed in section 4.12.1.4 of the DEIS.

IND1-2

IND1-2 The scope of the project does not include drilling for natural gas; the proposed action is the transportation of natural gas in a pipeline from Malin to the Jordan Cove terminal in Coos County, where the natural gas would be liquefied into LNG. Furthermore, exploration and production of natural gas (i.e., drilling and processing natural gas) are not activities regulated by the FERC.

IND1-3

Information has been added to the FEIS that addresses methane leakage and the relative impact of natural gas compared to coal.

IND1-4

IND1-3 In its application to the FERC, filed on May 21, 2013, Jordan Cove stated that the purpose and need for its liquefaction project was "a market-driven response to the availability of burgeoning and abundant natural gas supplies in the United States and Canada and rising and robust international demand for natural gas." Pacific Connector, in its application to the FERC filed on June 6, 2013, stated that the purpose of its project is to "connect the existing pipeline systems converging near Malin, Oregon and the proposed Jordan Cove Terminal at Coos Bay, Oregon," and the need for the project "is to supply approximately 1.02 Bcf/d of firm transportation service to Jordan Cove." Fracking is not part of the proposed project, but is instead used during exploration or production of natural gas. Furthermore, exploration and production of natural gas (including fracking) are not activities regulated by the FERC (see section 1.4.4 of the DEIS).

IND1-5

IND1-6

IND1-7

IND1-8

IND1-9

IND1 **Continued, page 2 of 2**

- IND1-4 The Jordan Cove LNG terminal is not located in the vicinity of the “Juan de Fuca subduction zone”; as stated in section 4.2.1.1 of the DEIS, the Jordan Cove LNG terminal is located in the vicinity of the Cascadia Subduction Zone. Each of the two LNG storage tanks at the Jordan Cove terminal would contain about 31.7 million gallons of LNG (less than 64 million gallons total – not 80 million gallons as stated in this comment). The safe operation of the LNG storage tanks is addressed in section 4.13 of the DEIS. As stated in section 4.2.1.3 of the DEIS, Jordan Cove would design and construct its facilities in a manner that takes geological conditions, such as an earthquake, into consideration.
- IND1-5 The Pacific Connector pipeline would not transport LNG; it would transport natural gas in vapor state. The environmental impacts of construction and operation of the 232-mile-long Pacific Connector pipeline are disclosed in the DEIS. Specifically, impacts on landowners whose property would be crossed by the pipeline route, including effects on property values as well as the possibility of eminent domain, are discussed in section 4.9.2.3 of the DEIS.
- IND1-6 Nowhere in the DEIS is there a statement that the Project would be in the “public interest.” In fact, the Commission would make its finding of public benefit in its decision-document Project Order. The EIS is not a decision-document. The Commission would issue its Order after we have produced an FEIS
- IND1-7 The DEIS discusses a number of alternatives in Section 3. As stated in Section 4.13 of the DEIS, the FERC does not establish safety standards for pipelines; those standards are set by the U.S. Department of Transportation (DOT). It is outside the authority of the FERC to revise or alter the DOT safety standards.
- IND1-8 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.
- IND1-9 The DEIS is a scientific-driven document that analyzes the environmental impacts of construction and operation of the Project.

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IND2

ORIGINAL

Comments: CP13-483, CP13-492

By: Kathy Staley, 18491 Upper Cow Creek Rd. Azalea, OR 97410

FILED
SECRETARY OF THE
COMMISSION

2014 DEC -8 P 1:10

FEDERAL ENERGY
REGULATORY COMMISSION

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits. As one of the rural landowners that could be blown up I am extremely concerned for my safety.

IND2-1

This project will clear cut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND2-2

The Upper Cow Creek Firewise Community is extremely concerned with FERC's lack of review of the extreme fire hazards that will be produced by first the construction of the pipeline and then with the ongoing use of the pipeline. You have to construction a pipeline with hundreds of workers that will be smoking within the forest and then they will be using welding torches and heavy equipment in areas that you aren't even allowed to drive through in most of the summer, because of the high fire danger. The attractive nuisance of a ATV road will be too hard to riders to resist. Added open places for hunting can also be a problem for fire safety. We have spent several years trying increase the protection for our community from wild fire, and now FERC is proposing placing a highly flammable pipeline/highway in our community.

IND2-3

In addition within the environmental review of the proposed project there are several problems I would like to comment on:

The idea of the potential use of inspectors hired by the contractor – which is in my eyes letting the fox watch the hen house is a problem. Require the use of certified inspectors that are hired and managed by the Umpqua Forest Service, Tiller Ranger District when they are working within the forest.

IND2-4

By devaluing the wetland within our drainage it is a view of years of logging and mining allowed to damage those wetland areas. So when you propose that the pipeline trench will be armored with bentonite to stop the inflow of water it will only further degrade an already compromised wetland system. By adding the damming of the trench the compaction of the trench and work area FERC will probably destroy that whole system.

IND2-5

In these times of obvious climate change the concern over wasting water is not hard to understand. This year alone brought the removal of water rights to ranchers on our creek, therefore creating a hardship. So you propose to use millions of gallons for dust control and then millions more for the pigging of the pipeline. And with that water being piped from different drainages with inadequate protection between drainage

IND2-6

IND2 Kathy Staley, Azalea, OR

IND2-1 See response to IND1-7.

IND2-2 See response to IND1-8.

IND2-3 The DEIS addresses impacts the Pacific Connector pipeline may have on local fire departments in section 4.9.2.6. That section indicated that Pacific Connector has produced an Emergency Response Plan, a Fire Prevention and Suppression Plan, and a Safety and Security Plan. In addition, DOT safety regulations require the pipeline company to coordinate with local responders. Pacific Connector would provide appropriate training to local emergency service providers before putting the pipeline into service. Safety measures that would minimize risks of fires in forested lands are discussed in section 4.13.9.1 of the DEIS. Off-highway vehicle (OHV) controls are discussed in section 4.8.1.2 of the DEIS. Furthermore, FERC is not proposing this Project, the applicants are; FERC is a federal regulator of the Project and the lead NEPA agency.

IND2-4 Section 2.5 of the DEIS details environmental compliance and monitoring. The Project's construction would be monitored by FERC staff. In addition, Pacific Connector has agreed to a third-party construction inspection program to be run through the FERC. Furthermore, construction on federal lands would be monitored by the land managing agencies (BLM, Forest Service, and Reclamation).

IND2-5 The pipeline trench would not be armored by bentonite. As explained in section 2.4.2.1 of the DEIS, the trench would be backfilled with padding, subsoil, and topsoil. Trench breakers, consisting of sandbags or foam, would be installed in the trench at the base of slopes adjacent to wetlands to prevent water from the trench from entering the wetlands. As explained in section 4.4.3.2 of the DEIS, measures would be implemented during the construction of the Pacific Connector pipeline to prevent damage or destruction of wetlands.

IND2-6 Surface water use during construction of the Pacific Connector pipeline is discussed in section 4.4.2.2 of the DEIS. As explained in that section, Pacific Connector developed a Hydrostatic Testing Plan that includes measures to avoid, minimize, or reduce impacts associated with the transfer of water between watershed basins. Water would be discharged according to ODEQ requirements for chlorinated water discharges as noted in the Hydrostatic Test Plan (Appendix M to the POD). All discharge locations would be monitored after construction for potential noxious weed establishment and treated if necessary. Water would not be used during pigging of the pipeline.

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systems from any invasive plants or animals is shortsighted. Then the proposal that you will chlorinate the water between the drainages is just as damaging. You are not allowed to dump chlorinated water without first dechlorinating that water. There was no discussion of the dechlorination process at all. And then added to that the proposed system for trapping the water might work if you are on flat ground, but the very steep terrain you are working on will be impractical. The only way you might be able to make this work is using Frack tanks to transport them back to the original drainage basin.

IND2-6
Cont'd

The proposal for the restoration of the pipeline and work area uses reseeded with heavy fertilization. I currently use creek water to water my organic garden. The potential infiltration of nonorganic fertilization into my creek system is of great concern.

IND2-7

Limited review of the proposed pipeline near existing cinnabar mines is very concerning. Those mines were used to provide mercury during World War II. But, now we are limited to the number of fish from the Galesville Reservoir we can consume because of the high mercury levels. So with the digging of a trench in those areas will cause the mercury to once again become mobile. The environmental review felt that it was of a limited concern. So will you drink the water and eat the fish in my community?

IND2-8

The removal of cover over a very small creek doesn't seem to be of concern by FERC. This will potentially heat up the creek. No matter how small every time you make even a small increase in the temperature it will have a negative impact on the aquatic life in the creek which then effects the temperature in salmon bearing rivers.

IND2-9

I have tried three times to send my concerns to FERC. As an individual it has been the most frustrating thing since the last time I commented on this proposal. I am not sure whether FERC is intentionally blocking my negative comments or is it just poor management of a flawed technology system.

IND2-10

IND2 Continued, page 2 of 2

IND2-7 Revegetation is described in section 2.4.2.1 of the DEIS. Pacific Connector would revegetate the right-of-way in accordance with its *Erosion Control and Revegetation Plan*. The standard fertilization rate would be 200 pounds per acre of bulk triple-16 fertilizer. No fertilizer would be applied within 100 feet of streams.

IND2-8 As noted in section 4.2.2.1 of the DEIS, the Pacific Connector pipeline route would be in the vicinity of three historic and abandoned cinnabar or mercury mines (Nivinson, Red Cloud, and Thomason) between mileposts (MP) 108 and 110. Section 4.4.4.2 of the DEIS discussed concerns over mercury contamination from these mines entering into the nearby East Fork of Cow Creek watershed and affecting aquatic resources. Based on several site-specific studies conducted by Pacific Connector (GeoEngineers 2009b) and the Forest Service (Broeker 2010), we concluded that it was highly unlikely that pipeline construction would encounter soils with elevated mercury concentrations in the vicinity of the abandoned cinnabar mines. In addition, Pacific Connector developed a *Contaminated Substances Discovery Plan* that contains measures to protect the public and the environment.

IND2-9 Section 4.6.2.3 of the DEIS addressed impacts on stream water temperatures resulting from the clearing of riparian vegetation along streambanks during pipeline construction. After a review of various studies, we concluded that clearing of the right-of-way at most proposed stream crossings would have very little impact on stream water temperatures, and therefore would not likely have adverse effects on fish.

IND2-10 You should have contacted the FERC's Online Support at email ferconlinesupport@ferc.gov or toll-free telephone number 1-866-208-3676 to assist in the electronic filing of comments with the Commission. **Note:** Comments sent to ferconlinesupport@ferc.gov are not considered an official filing before the Commission or made part of the record. To file an official comment on a proceeding before the Commission, please follow our Rules of Practice at 18 CFR 385. You may also file comments related to a FERC project using [eComment](#) or [eFiling](#).

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IND3

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First St. NE, Room 1A
Washington DC 20428

December 21, 2014

**COMMENTS ON DRAFT EIS FOR JORDAN COVE/PACIFIC CONNECTOR PROJECT,
DOCKET NUMBERS CP 13-483-000 AND CP 13-492-000**

I am submitting this comment regarding the Jordan Cove/Pacific Connector project because that is the procedure I must follow under federal guidelines. However, I have little faith that this comment will even be read, let alone considered in any serious way. There are four reasons for this:

1. I have written several letters to FERC addressed to your attention since 2011, and not one of them has ever been acknowledged.
2. It has become clear over the past several years that FERC is no longer acting as a REGULATORY agency; rather it has become a PERMITTING agency for the oil and gas industries.
3. Nowhere has this pattern been more obvious than in the Draft EIS to which I am responding. It is, to say the least, a thinly veiled cover up of a foreign corporate land grab.
4. The previous point is underscored when it becomes clear that nowhere in the 5043 pages of this Draft is there any response to the Scoping comments submitted by me and numerous other Coos County citizens in the hearing of 2012. This cannot stand.

IND3-1

Let me remind you of your responsibility to the citizens of this country as it pertains to permitting proposed energy projects. You are to be guided by the National Environmental Policy Act (NEPA) which was written to ensure that the public commons of the United States are protected from harm caused by construction and development. To this end, NEPA requires an EIS which thoroughly and honestly assesses the environmental impacts of not only the proposed project but a variety of alternatives. The result of such a process, when correctly carried out, may well require action on the applicant's part ranging from major modifications in design, through relocation of the proposed facilities, all the way to a decision not to construct the project at all. There is no way that the Draft EIS you have presented could result in any outcome except a green light for the developer.

IND3-2

IND3 Jonathon Hanson

IND3-1 The FERC does not respond individually to specific comment letters received during scoping. Instead, as explained in section 1.6 of the DEIS, we grouped scoping comments into general environmental resource categories, and addressed the topics raised under each resource section of Chapter 4 (Environmental Analysis) in the DEIS.

IND3-2 The EIS is not a decision-document. In fact, no decision about whether or not to authorize this Project has been made at this time. As explained in section 1.4 of the DEIS, the purpose of the EIS is to disclose to the public and the Commissioners the potential environmental impacts likely to result from the construction and operation of the Project. The Commissioners would take into consideration the environmental impacts of the Project, together with non-environmental economic data such as markets and rates, prior to making their decision, which would be issued as a Project Order. The Order would only be issued after we have produced an FEIS for this Project. See also our response to IND1-6.

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IND3 Continued, page 2 of 5

The Council on Environmental Quality regulations state that an EIS “must be objectively prepared and not slanted to support the choice of the agency’s preferred alternative over the other reasonable and feasible alternatives.”¹ Did your staff read that page? It certainly does not appear so. I recommend that prior to revising the EIS for the final draft, your entire staff be required to read the full text of NEPA (40CFR 1500 et seq) as well as all of the CEQ implementing regulations. In the meantime, I will bring a few of the highlights to YOUR attention.

IND3-3

NEPA regulations state that the EIS must “...specify the underlying purpose and need to which the agency is responding in proposing the alternatives, including the proposed action.”² This serves as a basis for identifying the reasonable alternatives that could meet the stated purpose and need.³ FERC has totally evaded this responsibility when it states that the purpose and need for the project was defined by Jordan Cove.⁴ FERC appears to be validating Jordan Cove’s desire to add to its profitability by serving the increasing international market demand for natural gas. This is an overly narrow, biased, and self-serving foundation upon which to base a project of this scope and magnitude. Further, it totally ignores a recommendation from the EPA that the Draft EIS should serve the broader public interest and need. EPA recommended that FERC discuss “...the proposed project in the context of the larger energy market, including existing export capacity and export capacity under application to the Department of Energy, and clearly describe how the need for the proposed action has been determined.”⁵ Apparently FERC feels it is above any such reasonable recommendations.

IND3-4

The heart of a properly developed EIS is the comparative analysis of the impacts of alternative project designs and locations. This approach allows the issues to be sharply defined and provides for a clear basis of choice among options. There is virtually no comparative analysis of any alternatives in the Draft EIS. What passes for comparative analysis is a brief description of how other proposed facilities in Oregon, Alaska, and the East and Gulf Coasts would not be capable of meeting Jordan Cove’s objectives of constructing a West Coast facility to export natural gas from western Canada and the U.S. Rocky Mountain States. Note to FERC: Jordan Cove’s objectives have no relationship whatever to the comparative environmental impacts of proposed project alternatives. Do you really think the public is ignorant enough to accept the pap you have provided as a viable document? Do you really think that we believe there will be no significant environmental impacts of this project? Do you really think we are going to

IND3-5

IND3-3 As stated in sections 1.1 and 1.4 of the DEIS, the document was prepared to comply with the National Environmental Policy Act as implemented under the regulations promulgated by the Council on Environmental Quality (CEQ) at Title 40 Code of Federal Regulations (CFR) Parts 1500-1508.

IND3-4 The CEQ regulations at Part 1502.13 only require that an EIS should “briefly specify the underlying purpose and need” for a Project; which we have done in section 1.3 of the DEIS. The Commissioners will have a broader discussion of purpose and need in their Project Order. See response to IND1-6. As explained in section 1.4.4 of the DEIS, the document will not discuss larger energy markets as that would be beyond the scope of the Project-specific environmental analysis.

IND3-5 Our analysis of alternatives can be found in chapter 3 of the DEIS.

¹ Council on Environmental Quality, 40, ¶4

² 40 CFR 1502.13

³ Council on Environmental Quality, “A Citizen’s Guide to the NEPA,” December, 2007, p. 16.

⁴ DEIS, p. 1-12

⁵ EPA “Scoping Comments – Jordan Cove Energy Project,” October 29, 2012, P.3.

ALLOW it to be built?

Nowhere is the lack of a serious study of environmental impacts more evident than in the presentation devoted to the Coos Estuary. Here's how the EPA addresses the topic: "the cumulative impacts analysis should identify how resources, ecosystems and communities in the vicinity of the project have already been, or will be affected by past, present, and future activities in the project area. These resources should be characterized in terms of their response to changed and capacity to withstand stresses. These data should be used to establish a baseline for the affected resources, to evaluate the significance of historical degradation, and to predict the environmental effects of the project components."⁶ No such analysis is to be found anywhere in this document. Omitting such an analysis is a violation of the NEPA regulations stated in 40 CFR 1502.15, and results in the entire document being essentially worthless as an evaluation of the true impacts of this proposed project.

IND3-6

WE ARE AWARE OF THE FRAGILITY OF THE COOS ESTUARY. ARE YOU?

This is of course not the only omission from the Draft EIS. In agreeing with Jordan Cove that Coos Bay is the most advantageous location for accomplishing the company's objectives, the FERC draft states that Jordan Cove examined 17 ports in Washington, 14 in Oregon, and 7 in California to determine the most suitable location for an LNG terminal. It goes on to state that FERC, in its wisdom, examined the data and agreed that Coos Bay was the best choice. WHAT PORTS WERE CONSIDERED? WHERE ARE THE COMPARISONS OF THEIR CURRENT ENVIRONMENTAL SITUATIONS, AND THE STATEMENTS OF IMPACTS AND REQUIRED MITIGATION? AND MOST IMPORTANT, WHAT CRITERIA WERE UTILIZED IN THE SELECTION OF COOS BAY OVER THE OTHERS? It is ludicrous that FERC believes that the Draft EIS would be accepted as a viable document by any of the other agencies or by any educated member of the general public. Why keep such information "under wraps"? Or perhaps we should be concerned that the supposed analysis never even occurred???

IND3-7

But perhaps the *crème de la crème* of this flawed DEIS is the section regarding the North Bend regional airport. Here the bald truth is revealed. In the 2009 FERC decision to approve the Jordan Cove LNG import proposal, the then-Chairman Jon Wellinghoff cast the only dissenting vote. It was based primarily on his view that the EIS did not adequately study possible negative effects of the project upon airport operations. In the light of this, it is frankly amazing that the

IND3-8

DEIS for the proposed export project STILL contains no such analysis. Instead, FERC states that **PRIOR TO CONSTRUCTION**, Jordan Cove should consult with the FAA regarding the airport and provide copies of any relevant documentation to FERC.⁷ Now FERC has truly let the cat out of

⁶ EPA Scoping Comments, *ibid*, p 13.1

⁷ DEIS, p 4-843

IND3 Continued, page 3 of 5

IND3-6 Our analysis of cumulative impacts can be found in section 4.14 of the DEIS.

IND3-7 Jordan Cove's analysis of various ports that it examined along the Pacific Coast of the United States can be found in section 10.3.4 of Resource Report 10, included with its May 21, 2013 application to the FERC. Jordan Cove's application in Docket No. CP13-483-000 is a public document that can be viewed in electronic format on the internet through the eLibrary system of the FERC's webpage (www.ferc.gov). As stated in section 3.3.1 of the DEIS, our detailed analysis of potential West Coast alternative ports was included in section 3.3 of our May 2009 FEIS for the original Jordan Cove LNG import proposal in Docket CP07-444-000. This document is also available for public viewing through the FERC webpage.

IND3-8 Our analysis of potential Project-related impacts on the Southwest Oregon Regional Airport in North Bend can be found in section 4.10.1.4 of the DEIS. In their December 17, 2009 *Order Granting Authorizations Under Section 3 of the Natural Gas Act and Issuing Certificates* for the original Jordan Cove LNG import proposal in Docket No. CP07-444-000, the other four sitting Commissioners disagreed with and overruled Mr. Wellinghoff's dissent. In a letter to the Commission dated December 22, 2014, commenting on our November 2014 DEIS for this Project, the Southwest Oregon Regional Airport and Coos County Airport District stated that it "strongly concurs with (the) recommendation (in the DEIS for Jordan Cove to document consultations with the Federal Aviation Administration [FAA] and submit the results of studies before Project construction) and believes that the FAA process will assure that the Airport continues to operate safely and efficiently."

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IND3 Continued, page 4 of 5

IND3-9 See our response to comments IND3-2 and IND3-3.

the bag. Not only is it foisting off its responsibility to evaluate the impacts onto the applicant, but it is clearly showing its view that **CONSTRUCTION OF THE JORDAN COVE PROJECT IS A FOREGONE CONCLUSION. IN ESSENCE, AS OF THIS DATE, FERC HAS ALREADY ISSUED ITS RECORD OF DECISION. All the rest is a pro-forma dance to satisfy the public that the rules are being followed. ONLY THE PUBLIC ISN'T BUYING IT!!**

All of this brings us back to NEPA. One can hardly imagine an EIS process more in violation of the letter, intent, and spirit of NEPA than the DEIS which FERC has provided for the proposed Jordan Cove LNG project. How can FERC possibly think that the other agencies and the public can use this document as a basis for a rational decision on Jordan Cove? In my criticism of the DEIS I have pointed out that it is:

- Apparently written by persons unaware of their fiduciary responsibility to the public under NEPA (in fact, I have pointed out that the authors of this document appear to be unaware of NEPA).
- Devoid of analysis of the broader energy market, including present and future proposed export capability.
- Deaf to several recommendations from EPA, including the recommendation that discussion of the need and purpose for the project be a major component of the document.
- Devoid of any comparative analysis of alternative project designs and locations, which is the heart of a viable EIS.
- Defiantly lacking in a baseline analysis of the Coos estuary and its fragility as an aquatic environment, thus intentionally avoiding analysis of one of the primary affected ecosystems in this situation.
- Presumptuously claiming that a comparative analysis of numerous ports in Washington, Oregon, and California showed that Coos Bay was the best alternative for this project, without providing any of the data on which this claim is based.
- Contemptuously avoiding any analysis of the project's possible impacts upon operations at the North Bend regional airport, delegating the responsibility of communicating with the FAA to the applicant "**PRIOR TO CONSTRUCTION.**"
- Loaded with such statements, showing that this is not a serious, viable analysis of environmental impacts, but rather a premature license to construct the project. This simple fact results in more money to Veresen Inc./Jordan Cove by putting stars in the eyes of investors on the Toronto, Canada Stock Exchange.

IND3-9

20141222-5049 FERC PDF (Unofficial) 12/21/2014 12:45:41 PM

Along with many of my fellow residents of Coos County, I will await the results of this commentary period on the Draft EIS. If we are taken seriously, and a true EIS is forthcoming, that will go a long way toward restoring due process to the community. Otherwise, our only recourse will be to turn to the courts for appropriate legal action regarding this infringement upon our civil rights.

IND3-10

Most sincerely yours,



Jonathan Hanson
Terrified Citizen
62890 Olive Barber Rd.
Coos Bay, OR 97420

IND3 **Continued, page 5 of 5**

IND3-10 We will address comments on the DEIS in our FEIS.

20141125-5212 FERC PDF (Unofficial) 11/25/2014 1:50:57 PM

IND4

IND4 Bayla Greenspoon, Mt. Shasta, CA

Bayla Greenspoon, Mt. Shasta, CA.

I lived at OWL Farm near Days Creek, OR in the early 1980s. This piece of land is open to women who need a safe place to live. Many of the women who reside there have suffered abuse or trauma. It is a very important resource/safe haven, and should be kept as such! The proposed pipeline project would have severe impacts on this piece of land as well as other serious ecological and safety-related issues all along the path of the pipeline. Here are my concerns about the proposed project:

IND4-1

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND4-2

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND4-3

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND4-4

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction.

IND4-5

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND4-6

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND4-7

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped

IND4-8

- IND4-1 Potential impacts on OWL Farm were discussed in section 3.4.2.7 of the DEIS.
- IND4-2 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND4-3 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND4-4 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.
- IND4-5 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND4-6 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND4-7 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND4-8 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

20141125-5212 FERC PDF (Unofficial) 11/25/2014 1:50:57 PM

working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND4-8
Cont'd

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND4-9

- See more at: <http://www.cascwild.org/lng-comments/#sthash.Y217FXsx.dpuf>

Thank you for your consideration of these important, crucial issues.
Bayla Greenspoon

IND4 Continued, page 2 of 2

IND4-9 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

20141203-5015 FERC PDF (Unofficial) 12/3/2014 3:44:41 AM

IND5

John Sodrel, New Albany, IN.

Climate change is the most serious issue currently facing humanity and our continued existence on this planet. Scientists overwhelmingly agree that we must reverse the current trajectory immediately, with one eminent climate scientist saying it will be "game over for the planet" if we fail to do so.

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND5-1

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND5-2

IND5 John Sodrel, New Albany, IN

IND5-1 Climate change was addressed in section 4.14.3.12 of the DEIS. Greenhouse gas emissions resulting from the Project were discussed in section 4.12.1.4 of the DEIS. See response to IND1-1.

IND5-2 FERC jurisdictional natural gas transmission pipelines rarely leak methane; and if they do, the amount leaked is very small. Therefore, the Project would have virtually no impact on climate change related to the leakage of methane into the atmosphere. See response to IND1-2.

20141110-5149 FERC PDF (Unofficial) 11/10/2014 1:54:53 PM

IND6

Don Ewing, Cottage Grove, OR.
FERC

The proposed Pipeline and export terminal are another dangerous example of how corporate interests have continued to degrade the environment and the public's quality of life. The US should be pursuing renewable sources of energy in order to insure that all of our children and grandchildren have a viable biosphere in which to live their lives. Perpetuating and encouraging corporate interests to in order to profit off of the destruction of our living space is madness. I'd like to believe that political leaders, bureaucrats and corporate leaders would at least take responsibility for their own children's futures, but time after time I see the greed factor for short-term financial gain taking priority over one of the most basic of human instincts: long-term survival of one's own offspring.

LNG is not a "bridge fuel". The hydraulic fracturing which is used to obtain it, is causing groundwater contamination and releasing methane into the atmosphere. The proposed pipeline and export terminal would cause permanent damage to the land and the surrounding watersheds. Using southern Oregon as a route to ship fossil fuel overseas is a terrible idea. We live in a major earthquake subduction zone, and the proposed terminal would be subject to pipeline breaches, tsunami destruction and major methane release. If the lessons of Fukushima have not been learned, perhaps you should watch the tsunami videos again. LNG is a carbon-based fossil fuel, and whether it is burned in the US or Asia, it contributes to the ominous rise of CO2 in the atmosphere, and related positive feedback events, which is leading to an irreversible and runaway greenhouse event.

IND6-1

IND6-2

IND6-3

IND6 Don Ewing, Cottage Grove, OR

- IND6-1** Fracking, or hydraulic fracturing, is used during exploration and production of natural gas. As stated in our response to IND1-2, the FERC does not regulate the exploration or production of natural gas. In fact, fracking is not part of the Project; and therefore, the environmental impacts associated with that activity will not be analyzed in our environmental document. See response to IND1-3.
- IND6-2** As acknowledged in section 4.2.1.1 of the DEIS, the Jordan Cove LNG terminal is located in the vicinity of the Cascadia Subduction Zone. Jordan Cove would design and construct its facilities in a manner that takes geological conditions, such as an earthquake, into consideration. Potential impacts from a future predicted tsunami on the terminal are discussed in section 4.2.1.3 of the DEIS. See response to IND1-4.
- IND6-3** Climate change was addressed in section 4.14.3.12 of the DEIS. Greenhouse gas emissions resulting from the Project were discussed in section 4.12.1.4 of the DEIS. See response to IND1-1.

20141218-5003 FERC PDF (Unofficial) 12/17/2014 6:22:33 PM

IND7

Patricia Hine, Eugene, OR.
December 17, 2014

Dear Federal Energy Regulatory Commissioners:
I am writing as an individual Oregonian who opposes the Pacific Connector Pipeline and Jordan Cove LNG Terminal projects in Southern Oregon. CP 13-483-0000 and CP13-492-000

IND7-1

I attended the FERC hearing in Roseburg on December 8th to voice my concerns, along with approximately seventy other citizens. I understand the other hearings on this matter attracted large numbers of Oregonians against those projects as well.

My specific issue goes to the inadequacy of the Draft Environmental Impact Statement. I agree with the Oregonian's assessment, calling it "incoherent" in that it deliberately left out the climate impact of fracking, transporting, liquefying (and I will add - burning) the gas. What is an environmental impact statement, if it does not address environmental impacts, such as:

IND7-2

1) quantifying how much more green house gases will be burned as a result of this project, if approved, and what that will contribute to global warming, the most serious and pressing issue of our time;

IND7-3

2) how much less carbon sequestration will be possible due to permanent clear-cuts through over 230 miles of public and private land, and

IND7-4

3) how our ecological diversity will be affected with the "taking" of animals and plants listed in the Endangered Species Act? And that's just for starters! The project hardly justifies one iota of "public good", especially when you consider a Canadian company having the right to condemn Oregonian's land for a project to transport their gas to ship to Asian markets for profit. What is in it for Oregonians? Nothing. Your public good is not their profit. What are you thinking?

IND7-5

It's time our impact studies show true effects on our communities and public lives.

IND7-6

It's so clear that your commission is used to "rubber stamping" such projects from the profiteering resource extracting, extreme energy companies that pay you for the permits they request and you grant. I am mortified at this convoluted process. We're going to amend our laws so that the project can be approved? Really?

Friends, I'm sure you mean well, and you think what you're doing makes sense. But in real terms, for the climate, for Oregon, for our future, it's absurd.

We must get it together and stop permitting the extraction, transportation and burning of fossil fuels for profit. It's wrong and I hope you'll help me find a way to fix this broken system. Meanwhile, we are growing huge state-wide grassroots support for opposing this project and will not stop until we succeed.

Yours truly,
Patricia S. Hine
29755 Lusk Road, Eugene, OR 97405
541.343.5091

IND7 Patricia Hine, Eugene, OR

IND7-1 Comment noted.

IND7-2 Climate change was addressed in section 4.14.3.12 of the DEIS. See response to IND1-1. "Life-cycle" emissions from upstream and downstream sources not regulated by the FERC are beyond the scope of this Project-specific analysis, because the sources of natural gas upstream and the customers for the LNG downstream are unknown, as explained in section 1.4.4 of the DEIS.

IND7-3 Greenhouse gas emissions resulting from the Project were discussed in section 4.12.1.4 of the DEIS.

IND7-4 Federally-listed threatened and endangered species were discussed in section 4.7 of the DEIS.

IND7-5 See response to IND1-6.

IND7-6 See response to IND3-2.

20141229-5062 FERC PDF (Unofficial) 12/29/2014 11:54:06 AM

IND8

Roberta Cade, Salem, OR.

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the real dangers this project will exacerbate. It will add to climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND8-1

Natural gas is methane! A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC must consider these climate impacts of LNG.

IND8-2

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment, and our health and property. More and more cities/areas are experiencing the very negative results of fracking.

IND8-3

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND8-4

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. One oversight: FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is big "public interest" about this project, and FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND8-5

FERC failed to consider an alternative that requires the pipeline through southern Oregon be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. An exploding pipeline which kills fewer people because they live in rural areas is not acceptable. Peoples' lives are not an acceptable trade for saving corporate profits.

IND8-6

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND8-7

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND8-8

Thank you for listening.

IND8 Roberta Cade, Salem, OR

- IND8-1 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND8-2 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND8-3 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND8-4 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND8-5 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND8-6 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND8-7 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND8-8 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

20141201-5003 FERC PDF (Unofficial) 11/29/2014 1:06:47 AM

IND9

IND9 Ryan Navickas, Prospect, OR

Ryan Navickas, Prospect, OR.

I fish and hike in the Rogue River watershed. Impacts to the Rogue including cleared areas adjacent to the river and nearby streams would adversely affect the natural experience I enjoy while fishing there. I live and operate my business near the proposed pipeline route. My property value as well as the viability of my business which relies on sales to local restaurants which serve tourists enjoying the natural environment in the Upper Rogue drainage would be adversely affected by the dangerous and unsightly pipeline.

IND9-1

IND9-1 Pacific Connector proposes to cross under the Rogue River with a horizontal directional drill (HDD), thus avoiding direct impacts on the river, and its aquatic environment, including fish. See section 4.4.2.2 of the DEIS.

IND9-2

IND9-2 Property values are addressed in section 4.9.2.3 of the DEIS. Pipeline safety was addressed in section 4.13.9. The pipeline would be buried underground, and after installation the right-of-way would be restored and revegetated; so it would not be unsightly. Visual impacts were addressed in section 4.8.2.2.

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove Terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND9-3

IND9-3 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

IND9-4 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND9-4

IND9-5 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND9-5

IND9-6 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

IND9-7 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND9-6

IND9-8 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND9-7

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND9-8

20141201-5003 FERC PDF (Unofficial) 11/29/2014 1:06:47 AM

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND9-9

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND9-10

IND9 **Continued, page 2 of 2**

IND9-9 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

IND9-10 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

20141110-5041 FERC PDF (Unofficial) 11/9/2014 3:34:01 PM

IND10

Pamela Driscoll, Dexter, OR.
The Jordan Cove pipeline has so many strikes against it, I don't know where to begin. To export liquid natural gas which burns methane which is much worse than Co2 when we are at a critical point with global warming is insanity. Thirty positive climate change feedback loops have kicked in for climate change and time is running out before we won't be able to mitigate it's impacts. Building a pipeline going through people's land has no value to the public and is flat out wrong. The forests that will be cut is also a bad move when our forests are one of the top ten in the world for the carbon they sequester and habitat for countless species, some endangered. We are already over-cutting our forests here in Oregon, fragmenting critical habitat. The practice of fracking uses and poisons vast amounts of water when we are seeing droughts and water quality is quickly going down even without fracking. This is to benefit the fossil fuel industry at the expense of the people and the non-human species that live in Oregon. Just say "NO!"

IND10-1

IND10-2

IND10 Pamela Driscoll, Dexter, OR

IND10-1 Nowhere in the DEIS is there a statement that the Project would be in the "public interest." In fact, the Commission would make its finding of public benefit in its decision-document Project Order. The EIS is not a decision-document. The Commission would issue its Order after we have produced an FEIS.

IND10-2 Comment noted.

20141117-5014 FERC PDF (Unofficial) 11/15/2014 7:36:36 PM

IND11

Nadya Hase, Roseburg, OR.
As experts in fossil fuel refinement, you already know the negative
environmental repercussions of methane and fracking. As a US Citizen and
conscious living being on this planet, I vote NO to 'The Jordan Cove LNG
Terminal and Pipeline'. Please consider all living beings in your
decision making. Thank you.

IND11-1

IND11-2

IND11 Nadya Hase, Roseburg, OR

IND11-1 Comment noted.

IND11-2 The DEIS addresses potential Project related impacts on the
quality of the human environment.

20141117-5023 FERC PDF (Unofficial) 11/16/2014 8:43:41 PM

IND12

IND12 Lana Gold, Portland, OR

IND12-1 The DEIS discusses impacts the Pacific Connector pipeline may have on vegetation and timber in section 4.5.1.2. It addresses potential impacts on wildlife in section 4.6.1.2. The pipeline route through the Oregon Women's Land Trust property is discussed in section 3.4.2.7.

Lana Gold, Portland, OR.

I am writing to oppose the LNG pipeline through old growth and wildlife habitat in Southern Oregon and elsewhere--particularly the private land held by the Oregon Women's Land Trust (OWLT) and the adjoining public land held by the Bureau of Land Management (BLM) near Canyonville, OR.

IND12-1

The proposed LNG pipeline would require a massive clearcut through OWLT/adjoining BLM land which would harm old growth forests and the natural ecology supported there. These lands are home to 100-year old trees; native flowers and herbs; many species of birds, including some endangered owls, deer, bears, and many other types of flora and fauna that indicate a robust ecosystem.

The LNG pipeline project is opposed by local landowners, trustees and stewards of the land, and the many visitors over the years who have enjoyed the OWLT sanctuary. Considering not only the needs of the current local community but the needs of future generations to enjoy the OWLT land means leaving old growth and mature native ecology--both on OWLT land and the adjoining BLM land undisturbed.

I have lived in Oregon all of my life and have witnessed the way large companies have impoverished the timber-rich areas of the state. The Rogue Valley/Southern Oregon region has already suffered being carved up by timber companies whose economic benefits to the local communities were short-lived. After many massive logging projects in the region, local communities not only lost natural resources but were left with an economic "bust" as timber companies moved operations elsewhere. It makes no sense to allow big business to again carve through old growth forests in the area--with even less benefit to the local community. Although the value of the OWLT exceeds any monetary price tag, the compensation offered to the trustees of OWLT was paltry at best: \$2,292 for 7.8 acres.

For decades, the OWLT has preserved the land through ecologically sustainable practices that have provided habitat for wildlife--including some endangered owls--and given generations of visitors a place to enjoy a place of wildness, solitude, and beauty. Please stop the LNG pipeline from destroying this important sanctuary. Do not put the profit of foreign corporate interests over the well-being of the other stakeholders: current and future generations who care about the health of this remarkable piece of land.

Sincerely,

Lana M. Gold
Portland, OR

20141117-5025 FERC PDF (Unofficial) 11/17/2014 3:18:31 AM

IND13

Byron Harmon, Salem, OR.
My name is Byron Harmon. I am a concerned citizen of Oregon and the world. I am concerned about global climate change. I fear that we will put shortsighted profit and our economy before the long term longevity of our environment. Any statistics about the negative impacts regarding this project you have already read from other people and groups. I won't waste your time; I only hope that you heard their words. Fossil fuels burnt abroad because of us have the same impact as us burning them here, we will be just as responsible for climate change regardless of where they are exported to.

IND13-1

Thank you for your time.

IND13 Byron Harmon, Salem, OR

IND13-1 Climate change was addressed in section 4.14.3.12 of the DEIS. Greenhouse gas emissions resulting from the Project were discussed in section 4.12.1.4 of the DEIS. See response to IND1-1.

20141117-5110 FERC PDF (Unofficial) 11/17/2014 11:43:53 AM

IND14

Jackie Johnson, Eugene, OR.
FERC needs to fully consider these impacts of the LNG terminal, as it has failed to do so:

1. The public safety risk created by building it in the earthquake subduction zone and tsunami area of Coos Bay. Particular attention should be given to the results of loss of both backup and primary power to safety systems, as has been demonstrated to be possible in Fukushima's earthquake and tsunami. Additionally, impacts on the community from escaped or exploding gas should be determined.

IND14-1

2. impacts to endangered wildlife by destruction of habitat through 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. Endangered species including the spotted owl, marbled murrelet, and coho salmon depend on this habitat.

IND14-2

IND14 Jackie Johnson, Eugen, OR

IND14-1 The safe operation of the LNG storage tanks is addressed in section 4.13 of the DEIS. As stated in section 4.2.1.3 of the DEIS, Jordan Cove would design and construct its facilities in a manner that takes geological conditions, such as an earthquake, into consideration.

IND14-2 The LNG facility would not impact old-growth forests. Impacts to old-growth forests from the pipeline, as well as impacts to listed species that depend on these habitats, are addressed in sections 4.6 and 4.7 of the DEIS.

20141119-5003 FERC PDF (Unofficial) 11/18/2014 5:55:54 PM

IND15

IND15 Jain Elliott, Eugen, OR

IND15-1 This appears to be based on a form letter. See responses to IND1.

Jain Elliott, Eugene, OR.

When this project was first proposed, we were told that land for the pipeline could be taken by eminent domain because it was so important that we be have access to enough fossil fuel energy to maintain our way of life, and LNG was going to be piped IN at Coos Bay, so we wouldn't be dependent on Arab oil. That was so important that it overrode concerns anyone in Oregon had about the safety of the pipeline or the processing plant in Coos Bay or the wildlife habitat that would be destroyed.

Now we hear that there's actually plenty of fuel, in Canada, but that it's still so important that they be able to send it to China to be burned that eminent domain in Oregon is still the way to go.

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline. Whose public is interested? The Oregonians who'll be breathing the air polluted in China by burning fuel? Or the Canadians who'll be profiting from its sale?

IND15-1

20141120-0029 FERC PDF (Unofficial) 11/19/2014

To: KIMBERLY BOSE
SECRETARY, F.E.R.C.
888 FIRST ST. NE, ROOM 1A
WASHINGTON DC 20426

ORIGINAL

CP13-492

11/2/14

IND16

DEAR SECRETARY BOSE,

I AM WRITING TO COMMENT ON THE PROPOSED JORDAN COVE LIQUEFIED NATURAL GAS EXPORT TERMINAL AND PIPELINE, WHICH WOULD HAVE ITS TERMINUS AT BOOS BAY, OREGON. I BELIEVE THE PUBLIC COMMENT PERIOD AS REGARDS THIS PROJECT IS NOW OPEN.

I AM OPPOSED TO BUILDING THIS PROJECT BECAUSE OF SERIOUS PROBLEMS ASSOCIATED WITH THE METHOD BY WHICH NATURAL GAS IS OBTAINED: THAT PROCESS IS HYDRAULIC FRACTURING ("FRACKING").

THERE ARE SIGNIFICANT RELEASES OF METHANE GAS WHEN FRACKING IS BEING CARRIED OUT. THIS IS KNOWN AS "METHANE MIGRATION". IT IS VERY PROBLEMATIC IN THAT METHANE IS A VERY STRONG GREENHOUSE GAS.

THERE ARE ALSO THE SERIOUS PROBLEMS OF SPOILAGE OF HUGE AMOUNTS OF FRESH WATER, AS IT IS MIXED WITH VARIOUS CHEMICALS AS PART OF THE PROCESS, AND, TOO, THERE IS NO SAFE WAY TO DISPOSE OF THIS WASTE. SO, WE POISON A PRECIOUS RESOURCE (FRESH WATER) AND CREATE A NEW POLLUTANT WITH WHICH WE DON'T KNOW HOW TO DEAL.

AND, AS AN OVERVIEW, THERE IS THE ISSUE OF CONTINUING TO RELY ON NATURAL GAS, AS WE DO NEED TO TRANSITION AWAY FROM FOSSIL FUELS, DUE TO THE CLIMATE CHANGE ISSUE.

I AM ASKING THAT F.E.R.C. NOT ALLOW THE JORDAN COVE TERMINAL AND PIPELINE, FOR THESE REASONS.

RESPECTFULLY,

STEPHEN M. AMY
11211 NE WIDLER ST. #225
PORTLAND OR 97220

RECEIVED
FEDERAL ENERGY
COMMISSION
NOV 19 2014

IND16-1

IND16-2

IND16 Stephen M. Amy, Portland, OR

IND16-1 Comments about production from oil sands or fracking methods to produce natural gas are not related to the environmental impacts associated with this Project. It is the Department of Energy, not the FERC, that regulates the U.S. Energy policy. See response to IND6-1 and IND1-3.

IND16-2 Comment noted.



Epiphany
© Claudia Frost
AAUW Batavia-Geneva-St. Charles (IL) Branch

Claudia Frost is a retired public relations director for public education and health care in addition to careers in elementary and secondary education, horticulture, and fine art photography. As a member of the community's Public Arts Committee and a volunteer with the St. Charles Arts Council, Claudia has been involved with promoting the arts within her local branch while creating a post-retirement fine art photography career. More of her work can be seen online at www.claudiafrost.com.

Epiphany was taken in the artist's garden and was meant to be a loving accolade to the flower's paper-thin petals, soft verdigris foliage, and intriguing seed pods.

"I have been an AAUW member for almost two decades and have met many wonderful friends who support women around the world. Our branch has been especially encouraging to emerging middle school writers and young women pursuing scientific careers through our annual literary contest and STEM involvement. We have all learned to be stronger, more empowered women who can steadily role model for daughters, sons, and grandchildren."



20141120-5000 FERC PDF (Unofficial) 11/19/2014 5:56:12 PM

IND17

Sheryl Kaplan, Pasadena, CA.

This massive fossil fuel infrastructure project going through Owl Farm is not in keeping with its mission to foster ecologically sound preservation of land.

It would suffer a 100' wide clearcut through some of its oldest and best forests, including madrone trees hundreds of years old. They would also lose the beautiful old-growth forest on the adjoining BLM federal forest that they love to walk through.

That BLM forest is a wildlife reserve (called a Late Successional Reserve). It is also a "known owl activity center" (KOAC) because a spotted owl (the BLM named Myrtle) lived there. One of the reasons the KOAC is next to Owl Farm is because the women on Owl Farm provide part of that mature-forest habitat wildlife need. The proposed pipeline will permanently remove all of the best forests in the BLM KOAC and on Owl Farm.

For this reason, the Energy Company offered more compensation to BLM for killing owls, but not to Owl. They offered \$2,292 for using 7.8 acres of OWLT land, the lowest possible value for the land, even though the land exceeds all monetary value. If they don't agree, you hope to get the power of eminent domain from FERC. FERC is evaluating the "public need" required for giving Veresen eminent domain in this DEIS. | IND17-1

Fracking natural gas, preparing it (Liquifying Natural Gas, or LNG) and shipping it means methane is leaked into the atmosphere along the way. Methane is 86 times more potent greenhouse gas than burning coal. Natural Gas is not a "bridge fuel". It is a global warming fossil fuel that delays renewal energy production.

Please do not allow this pipeline and leave the land the way it is and the way it was intended to be. | IND17-2

IND17 Sheryl Kaplan, Pasadena, CA

IND17-1 The BLM has required additional mitigation for project impacts in order to ensure the projects compliance with federal land management plans and associated federal requirements.

IND17-2 Comment noted.

20141120-5003 FERC PDF (Unofficial) 11/19/2014 7:49:46 PM

IND18

Kaseja Wilder, Eugene, OR.

Please Hear the People!!

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND18-1

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND18-2

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND18-3

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND18-4

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND18-5

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND18-6

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND18-7

Save our planet for us and our children, help stop this unproductive project!

- See more at: <http://www.cascwild.org/lng-comments/#sthash.xMckCfdK.dpuf>

IND18 Kaseja Wilder, Eugene, OR

- IND18-1 This appears to be based on a form letter. See responses to IND1.
- IND18-2 This appears to be based on a form letter. See responses to IND1.
- IND18-3 This appears to be based on a form letter. See responses to IND1.
- IND18-4 The safe operation of the LNG storage tanks is addressed in section 4.13 of the DEIS. As stated in section 4.2.1.3 of the DEIS, Jordan Cove would design and construct its facilities in a manner that takes geological conditions, such as an earthquake, into consideration.
- IND18-5 This appears to be based on a form letter. See responses to IND1.
- IND18-6 This appears to be based on a form letter. See responses to IND1.
- IND18-7 Impacts on old growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.

20150211-5135 FERC PDF (Unofficial) 2/11/2015 11:45:35 AM

IND19

Mark Wall, Coos Bay, OR.

I support the draft EIS in its current form and the major conclusions reached on page 15 of the Executive Summary. I would, however, ask that FERC reconsider its decision not to pursue the Blue Ridge alternative route proposed by local citizens here in Coos County. This route is shorter, stays up high on ridges therefore reducing the number of streams crossed, and puts more of the pipeline on federal lands versus private landowners. The issue seems to be one about birds(murrelets and spotted owls) located on the alternative route versus people and who is more negatively impacted. I would add that it is about fish and people versus birds. Please ensure you are making the right decision here and consider the opportunity to reduce potential impacts to both private citizens and fish.

IND19-1

In closing I ask that FERC issue a Final EIS on schedule and without further delay. This project has wide support in our area and given the breadth of analysis and research put into the draft EIS, I am confident that this project can be built while providing for and protecting the environment. Thank you for the opportunity to comment on this important project.

IND19-2

IND19 Mark Wall, Coos Bay, OR

IND19-1 Comment noted. See the comparison of the Blue Ridge alternative in section 3.4.2.2.

IND19-2 Comment noted.

20141124-5025 FERC PDF (Unofficial) 11/23/2014 2:53:53 AM

IND20

Cheryl Robinson, Ashland, OR.
Dear Kim Bose:

As a great-great-granddaughter of Oregon pioneers, I am concerned about the LNG terminal location in an earthquake subduction zone and the tsunami risk in Coos Bay. I am also deeply troubled by the proposed lower safety standards for the LNG pipeline planned to extend into sensitive old growth forest habitats. As a property owner, I am alarmed about the loss of property rights by 300 landowners. Thank you for your time and consideration of these concerns.

Sincerely,
Cheryl Robinson

IND20-1

IND20-2

IND20 Cheryl Robinson, Ashland, OR

IND20-1 The safe operation of the LNG storage tanks is addressed in section 4.13 of the DEIS. As stated in section 4.2.1.3 of the DEIS, Jordan Cove would design and construct its facilities in a manner that takes geological conditions, such as an earthquake, into consideration.

IND20-2 Impacts to land values and private landowners are addressed in section 4.9.

20150211-5151 FERC PDF (Unofficial) 2/11/2015 12:10:37 PM

IND21

IND21 **Meggan H. McLarrin, Coos Bay, OR**

Meggan H McLarrin, Coos Bay, OR.
I have reviewed the Draft Environmental Impact Statement and agree with FERC's findings. I feel that the mitigation measures Jordan Cove Energy (JCE) has proposed incorporate into both the short and long term construction/operation of these facilities drastically reduces these adversities. In reviewing this document it is evident that both FERC and JCE have gone above and beyond in ensuring this project will be a success to all parties involved. I ask that FERC proceed with the permitting process to grant JCE their permit for this project.

IND21-1

IND21-1 Comment noted.

I also strongly suggest the review of the alternate Blue Ridge Route for the pipeline. Although both are viable options, it appears that the Blue Ridge Route would be a more suitable region, as it affects less private parcels, and above all greater public safety both during construction and operation.

IND21-2

IND21-2 Comment noted. See the comparison of the Blue Ridge alternative in section 3.4.2.2.

20150211-5154 FERC PDF (Unofficial) 2/11/2015 12:17:01 PM

IND22

IND22 **Dennis J. Coplin, Sr., Tualatin, OR**

IND22-1 Comment noted.

Dennis J Coplin Sr, Tualatin, OR.

I am writing in support of the Jordan Cove LNG Terminal and the Pacific Connector Gas Pipeline projects proposed for Southern Oregon. The Draft EIS prepared by FERC has looked at every aspect of these two projects and analyzed each potential issue and mitigation that may come about during the construction as well as their use.

These two projects will create more than 2,000 construction jobs over four years and approximately 200 permanent jobs with a family living wage and benefits for those that will be employed.

The Southern Oregon Counties crossed by the Pacific Connector Pipeline will also benefit by having a new source of natural gas available for residential, commercial or industrial use. Southern Oregon needs these two projects to bring vitality back to our State of Oregon. Over the long-term, this will make Oregon as a whole a more competitive place to do business and bring jobs and a vital economy to an area in our State that has suffered due to a lack of prosperity since the collapse of our forestry industry in our State.

IND22-1

20141124-5028 FERC PDF (Unofficial) 11/23/2014 3:21:03 AM

IND23

IND23 Cheryl Robinson, Ashland, OR

IND23-1 Impacts to private landowners are addressed are section 4.9.

Cheryl Robinson, Ashland, OR.
Dear Kim Bose:

The lower pipeline safety standards in rural Oregon, in addition to proposed clear cuts with significant adverse impact to habitats and endangered wildlife, is very concerning. I am also distressed that property rights of 300 owners are disregarded. Please consider these concerns shared by other Oregonians whose families have also lived here for many generations. Thank you for your time.

IND23-1

Sincerely,
Cheryl Robinson

20141125-5004 FERC PDF (Unofficial) 11/24/2014 6:58:34 PM

IND24 Kai Forlie, Burlington, VT

IND24-1 See the response to IND1-1 and IND1-2.

IND24-2 Comment noted.

Kai Forlie, Burlington, VT.
Dear Ma'am/Sir,

IND24

I am writing to express my dismay that the DEIS concerning CP14-483-000 and CP13-492-000 totally overlooks the fact that the combined green house emissions produced by natural gas mining, storage, transportation and burning exceeds that of legacy fossil fuels (oil, coal, etc.). Thanks to its incredibly narrow focus, this DEIS completely misses the vital issue of total emissions and therefore plays down just how damaging and destructive the production of natural gas is. This DEIS is therefore flawed and must be nullified.

IND24-1

Moreover, it makes absolutely no sense to construct new infrastructure dedicated to the fossil fuel sector given that where we as a nation need to be spending money and what we need to be promoting is reduced human birthrates, the deep conservation of resources, energy efficiency and renewable energy. This natural gas infrastructure effectively locks into another thirty years of the status quo, time we cannot afford to waste. The looming low energy future and anthropogenic climate change demand that misguided projects like these be vigorously examined and ultimately denied.

IND24-2

Sources:

"Anthropogenic emissions of methane in the United States":
<http://www.pnas.org/content/110/50/20018.abstract>

"Methane Leaks from North American Natural Gas Systems":
<http://www.sciencemag.org/content/343/6172/733.summary>

"Preparing for a Low Energy Future":
<http://www.sciencedirect.com/science/article/pii/S0016328712001802>

"Department of Defense 2014 Climate Change Adaptation Roadmap":
<http://www.acq.osd.mil/ie/download/CCARprint.pdf>

"IPCC CLIMATE CHANGE 2014 SYNTHESIS REPORT": http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_LONGERREPORT.pdf

20141125-5034 FERC PDF (Unofficial) 11/24/2014 6:23:24 PM

IND25



RE: Response to the 11/7/14-Dated Draft EIS

We are writing to inform FERC that your Draft EIS opinion in favor of the proposed route vs. the Modified Blue Ridge 2013 Alternative is wrong. In the coming weeks and months, we will provide FERC and your consulting firm with the evidence and testimony that will support our claim. We are confident that between now and the Final EIS, you will change your preference to Blue Ridge.

Some of the immediate questions we have are:

1. Where is the justification to forgo the 10/4/13 FERC staff opinion, which states, "The FERC staff believes that the PCGP Modified Blue Ridge 2013 Route is environmentally preferable to the June 2013 application route between MPs 11.3 and 21.8, because it is shorter, would affect fewer landowners, and would cross less waterbodies" (page 5 of 10/4 Data Request to Pacific Connector).
2. How can two unaffected landowners on Daniels Creek who do not have the pipeline on their property carry more weight than the 23 affected landowners and the dozens and dozens of adjacent landowners on the proposed route who have testified and commented?
3. Tell us how Table 3.4.2.2-1 in the DEIS supports the Proposed Route vs. the Blue Ridge Alternative.
 - a. How have you arrived at the conclusion that crossing 6 fish-bearing streams on the proposed route would be "temporary and short term?"
 - b. Where is the input in this DEIS from NFMS re - Coho and Green Sturgeon?
 - c. This table shows 7.4 miles of right-of-way on the Proposed Route vs. 8.9 on the Blue Ridge Alternative. What is it that makes a "point-to-point" BPA corridor right-of-way that is not continuous better than an existing road right-of-way with continuous access?
4. How current is the NSO and MAMU data in light of the extensive logging and thinning that has been done in the last few years on Blue Ridge? And, how has this thinning and logging affected the evergreen forest and, in particular, the late successional/old growth forest and the mid-seral forest on Blue Ridge?
5. The USACOE's "Public Notice for Permit Application," dated 11/14/2014, states that the entire pipeline from Coos Bay to Malin, OR "will cross 233 canals and ditches." The 9/3/13-dated table in Pacific Connector's response to FERC's August 16, 2013 Data Request states that the Proposed Route between MP 11.1R and 21.8 crosses 66 waterbodies vs. 8 on Blue Ridge. FERC's Table 3.4.2.2-1 in the DEIS states that there are 12 stream crossings on the Proposed Route vs. 9 on the Blue Ridge Alternative, yet FERC's note "d" on the table

IND25-1

IND25-2

IND25-3

IND25-4

IND25-5

IND25-6

IND25-7

IND25 Blue Ridge LNG Route 2013, Mark Sheldon, Coos Bay, OR

- IND25-1 See the comparison of the Blue Ridge alternative in section 3.4.2.2.
- IND25-2 No decision was made for these alternatives in the DEIS; the DEIS is not a decision document.
- IND25-3 See the comparison of the Blue Ridge alternative in section 3.4.2.2. See section 4.6.2.3 for a discussion on the Project effects on fish-bearing streams. As it states in section 3.4.2.2, the impacts to waterbodies are short-term effects while the loss of spotted owl and marbled murrelet habitat would be a long-term impact.
- IND25-4 NMFS is not a cooperating agency. NMFS may provide FERC with comments on the Draft EIS, and these comments would be addressed in the Final EIS.
- IND25-5 As it states in section 3.4.2.2, the impacts to waterbodies are short-term effects while the loss of spotted owl and marbled murrelet habitat would be a long-term impact.
- IND25-6 PCGP provided NSO and MAMU information for the Blue Ridge Alternative in the fall of 2013 based on FERC's data request. The information was from historic data residing in BLM corporate databases.
- IND25-7 The DEIS lists 12 waterbodies crossed for the Proposed Route and 9 for the Modified Blue Ridge Alternative. These numbers are based on hydrography data (see table 3.4.2.2-1). As noted in the footnote of that table, field surveys identified 41 perennial streams and 24 intermittent streams along the Proposed Route. Field surveys have not been completed for Blue Ridge route but they would most likely identify many additional small streams.

20141125-5034 FERC PDF (Unofficial) 11/24/2014 6:23:24 PM

notes 41 perennial and 24 intermittent streams on the Proposed Route. How many are there?

IND25-7
Cont'd

Note: *There seems to be a lot of contradicting information. Is the Draft EIS information accurate?*

6. How do you substantiate the EIS Draft claim that damage to streams and the overall estuary is "temporary and short term"? How can a 36" welded pipe that is going to corrode and release heavy metals into the waterways it cross not be a source of permanent damage to the waterbody and the estuary?
7. How is FERC, in this DEIS, objectively comparing damage to MAMU and NSO habitat on the Blue Ridge Alternative Route (or any other route) with the damage to Coho and Green Sturgeon on the Proposed Route?
8. How do the geologic hazards justify the DEIS preferred route opinion when Table 3.4.2.2-1 shows 8,850 feet of geologic hazards on the Proposed Route vs. 4,370 feet on the Blue Ridge Alternative?

IND25-8

IND25-9

IND25-10

As a group of affected and adjacent landowners and interveners, these are just a few of the questions we'll be posing and what we'd like FERC to address. We believe that when FERC and its consulting engineering contractor really look hard at the Proposed Route in comparison to the Blue Ridge Alternative, the commission will again take the position that was correctly taken on 10/4/13.

Thanks,
Mark Sheldon

IND25 Continued, page 2 of 2

- IND25-8 See section 4.6.2.3 for a discussion on the Project effects on fish-bearing streams. The pipe is coated to avoid corrosion and buried beneath the stream. It is not placed in the stream.
- IND25-9 As it states in section 3.4.2.2, the impacts to waterbodies are short-term effects while the loss of spotted owl and marbled murrelet habitat would be a long-term impact. See section 4.6.2.3 for a discussion on the Project effects on fish-bearing streams.
- IND25-10 See section 3.4.2.2 for a comparison of a range of resources affected by each route. As it states in section 3.4.2.2, the loss of spotted owl and marbled murrelet habitat would be a long-term impact to listed species. No decision has been made on these alternatives, the DEIS is not a decision document.

20141125-5273 FERC PDF (Unofficial) 11/25/2014 2:46:05 PM

IND26

Julie A Jennings, Coos Bay, OR.
November 25, 2014

Re: Draft Environmental Impact Statement for the Jordan Cove
Liquefaction and Pacific Connector Pipeline Projects (Docket Nos. CP13-
483-000 and CP13-492-000). Issued November 7, 2014

I would like to ask the FERC Staff to consider the waste by-products from
the terminal in terms of air quality in more depth. Here in Coos Bay, we
have a marine layer that sometimes blankets the town and the spit where
the terminal is to be located. I know that these terminals have stacks
and there will be emissions from them. I am concerned about what type of
gases those emissions will be and how the marine layer will hold those
emissions down over the surrounding area. I have read that they could be
toxic and dangerous to the health of the people living here, and I am
concerned about the smell. The proposed settling pond for the waste by-
products could also be a potential source of toxic fumes and smells. Coos
Bay has a climate that is rainy and overcast a fair amount of the time, I
feel that the climate here in Coos Bay is unique and should be considered
in the decision to allow the LNG terminal to come here.

Thank you,
Julie Jennings
977 Pacific Ave
Coos Bay, Oregon

IND26-1

IND26-2

IND26 Julie A. Jennings, Coos Bay, OR

IND26-1 Climate change was addressed in section 4.14.3.12 of the DEIS. GHG emissions resulting from the Project were discussed in section 4.12.1.4 of the DEIS.

IND26-2 Emissions from the Jordan Cove facility and from LNG vessels and tugs are disclosed in section 4.12.1. Effects on public health and safety are discussed in section 4.13.1.

20141128-5007 FERC PDF (Unofficial) 11/27/2014 1:27:34 PM

IND27

Mark Sheldon, Coos Bay, OR.
Subject: The 8.9 miles of roadbed right-of-way on the Modified Blue Ridge 2013 Alternative Route vs. the 5.6 miles of BPA right-of-way on the Proposed Route

As an affected landowner and intervenor, I asked FERC prior to the DEIS to require Williams to provide a profile drawing of the pipeline in addition to the plan view alignment drawing to show the ups and downs, the the grade variation, along the 5.6 miles of BPA right-of-way on the Proposed Route.

The reason I asked for this drawing is to enable all parties to ascertain the actual geologic hazards and impacts potentially caused by excessive excavation (which will be required) along the 5.6 miles of BPA easement.

As someone quite familiar with the terrain under the BPA power lines, I know that: 1. There is no existing roadbed under that 5.6 mile power line easement. 2. The BPA "flies" the power lines point to point across multiple steep ravines with creek in the bottom of each ravine.

It is difficult to understand the extreme nature of this terrain without a profile drawing.

The DEIS makes the point that the pipeline will cross "rugged terrain composed of relatively weak sedimentary bedrock and relatively high precipitation rates" (DEIS pg. 4-267). This point is well taken, and there is no way to overstate how tough the going will be over the 5.6 miles of BPA right-of-way on the proposed route.

The Modified Blue Ridge 2013 Alternative Route, on the other hand, offers 8.9 miles of existing roadbed right-of-way. There are no steep ravines. It's all to "road grade" and its vehicle accessible year-round.

Question 1: Why doesn't the DEIS provide the comparative environmental impact, specifically the geologic damage and risk, for the 5.6 miles of BPA right-of-way on the Proposed Route and the 8.9 miles of roadbed right-of-way on the Blue Ridge Route?

Question 2: Why isn't Williams or some other agency required to provide a profile drawing of the proposed route along the BPA right of way on the Proposed Route and the roadbed right-of-way on the Blue Ridge Route?

-Mark Sheldon

IND27 Mark Sheldon, Coos Bay, OR

- IND27-1 Pacific Connector filed a geologic hazard report that was summarized in the EIS.
- IND27-2 See the introduction to chapter 3 for a discussion of how FERC analyzes alternatives.
- IND27-3. Detailed drawings for the proposed route are required as part of the design; however, they are proprietary and not released to the public.

IND27-1

IND27-2

IND27-3

20141201-0063 FERC PDF (Unofficial) 12/01/2014

Fred Fleetwood's Comments on Pacific Connector Gas Pipeline Draft EIS

COMMENTS
On
FEDERAL ENERGY REGULATORY COMMISSION's
DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

OEP/DB2E/gas 3
The Jordan Cove Energy Project, L.P.
Docket No. CP13-483-000

And
The Pacific Connector Gas Pipeline, L.P.
Docket No. CP13-492-000
FERC/EIS-0256D

By
Fredric ("Fred") L. Fleetwood
4261 Hwy. 227
Trail, OR 97541

Saturday, November 22, 2014

To: Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission (FERC)
888 First Street NE, Room 1A
Washington, DC 20426

Dear Secretary Bose,

I received, in the U.S. Postal Service mail on Monday, November 10, 2014, the Compact Disk (CD) pertaining to the above reference projects, and I want you to know that the draft EIS contained on the CD is extremely difficult to navigate through. The discussions about the two projects in this EIS are all mixed up together. It is noted that the general sequence of the discussions are first (by paragraph) about the Jordan Cove Project, and then secondly about the Pacific Connector Project. **However, THEY SHOULD BE DISCUSSED COMPLETELY SEPARATELY! – even though they are inter-related.**

I realize that issue is outside the scope of the EIS because it is not "environmental." BUT you need to make the CD (and also probably the hard copy) more useful to the commenter by separating discussions relating to the two projects.

I want to take issue with the second and third sentences of the second paragraph of the five page introductory section directed "TO THE PARTY ADDRESSED." They are:

"The FERC staff concludes that approval of the Project would result in some limited adverse environmental impacts. **However, if the Project is constructed and operated in accordance with applicable laws and regulations, and with implementation of Jordan Cove's and Pacific Connector's proposed mitigation measures, and the additional mitigation measures recommended by the FERC staff and federal land managing agencies in this EIS, environmental impacts would be substantially reduced.**"

That last and third sentence is **particularly offensive**. That is because it contains the two words "**substantially**" and "**reduced**." The use of those two words in this case convey an

Page 1 of 7

ORIGINAL

IND28

FILED
SECRETARY OF THE
COMMISSION
DEC 1, 2014
DEC - 1 P 1:51
FEDERAL ENERGY
REGULATORY COMMISSION

IND28 Fredric Fleetwood, Trail, OR

20141201-0063 FERC PDF (Unofficial) 12/01/2014

Fred Fleetwood's Comments on Pacific Connector Gas Pipeline Draft EIS

erroneous sense of superiority – a sense of “know it all” – on the part of the government officials drafting the EIS. Government officials are **NOT** intellectually superior “**in knowing it all,**” compared to the general public.

“**Substantially**” is a matter of individual quantitative opinion, and that could literally mean **any amount**, depending on any one individual's opinion. Being of one individual's quantitative opinion is just simply UNACCEPTABLE in an EIS, when it is undefined. In this case, “**Substantially,**” needs to be **defined**, specifically, if it ever happens to be used, if at all, in an EIS.

Also, “**reduced**” needs to be **defined** where ever it is used in an EIS – because “environmental impacts” are usually “**adverse** environmental impacts.” The EIS needs to say an adverse impact is “**reduced**” by HOW MUCH! (My personal opinion is that ANY ADVERSE IMPACT IS UNACCEPTABLE. THEREFORE, I believe, **THE ENTIRETY OF THE TWO PROJECTS IS UNACCEPTABLE.**)

In addition, because that last sentence pertains to “**mitigation measures,**” there should at least be in the sentence a parenthetical sub note reference (or a **hyperlink** in the case of an EIS on a CD) to explicitly indicate **where in the EIS particular mitigation measures are discussed.**

However, the most important item in this EIS, and in any EIS for that matter, is the **meaning and the use of the word mitigation.** There are 1,313 instances of the use of the word in this EIS. Having to use that word that many times, in any document, is preposterous!

I remind you (and this is “**environmental, and therefore is within the scope of this EIS**”) that the definition of “mitigation” (Webster's Encyclopedic Unabridged Dictionary's definition in this case) is:

“1. to lessen in force or intensity ... 2. to make less severe: ...”

Well, of course! Everybody knows that, but did you know that it also means “**to make less BAD,**” in the context of environmental considerations? In other words, the project(s) are just simply **environmentally BAD, and they should NOT go forward!**

The last complete paragraph on page ES-7 has an ending sentence which states:

“Pacific Connector has prepared an *HDD Contingency Plan and Failure Procedure* that describes measures to contain an inadvertent release of drilling mud during the HDD process.”

But there is no hyperlink (or reference) to that contingency plan at that location of the EIS so the reader/commenter can go to that plan to see what it says and to evaluate the adequacy of that plan.

That is just one example of several instances which makes this EIS document inadequate for the commenter to evaluate and make particular pertinent comments on it.

Page 2 of 7

IND28 Continued, 2 of 7

IND28-1

The Executive Summary is just that; a summary of the findings of the DEIS. To find the reference to the HDD Contingency Plan, you need to read the body of the text of the DEIS; specifically, see section 2.4.2.2. That section stated that the HDD Contingency Plan was attached as Appendix 2H to Resource Report 2 of Pacific Connector's June 6, 2013 application with the FERC. The entire application is available in electronic format for public viewing via the internet on the FERC webpage (www.ferc.gov) through our eLibrary system.

IND28-1

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ABOUT OTHER OBJECTIONABLE (i.e., PREJUDICIAL) STATEMENTS IN THE EIS

On page 5-1 of this EIS, the document makes this immediately following statement. (The **bold underlined** portion and the red and brown formatted portions of that statement, reproduced here are for reference in the discussions following the reproduced statement.)

“... construction and operation of the Project would result in **some limited adverse environmental impacts**. However, most of these impacts would be reduced to less-than-significant levels with the implementation of the applicants' proposed mitigation measures and the additional measures we recommend in section 5.2. We developed measures that would appropriately and reasonably avoid, minimize, or mitigate environmental impacts resulting from construction and operation of the proposed Project. We recommend that our specific additional mitigation measures be attached as conditions to any authorizations issued by the Commission. If the Project is found to be in the public interest and is constructed and operated in accordance with the recommended mitigation measures, we conclude that it would be an environmentally acceptable action. **Our conclusions are based on information provided by Jordan Cove and Pacific Connector; analyses and field investigations by Commission staff; review of comments from federal, state, and local agencies; and input from public groups and individual citizens.**”

IND28-2

If everything is already considered “acceptable,” then why are you asking for additional comments about it on this EIS?

Like I said previously about opinion statements in this EIS, opinion statements that use words and phrases like “less-than-significant levels,” “appropriately and reasonably avoid,” “minimize,” “mitigate,” “environmentally acceptable action,” are **INAPPROPRIATE** because they are only the authors' **opinion phrases and words**, as opposed to the readers' concepts of what is acceptable and unacceptable. The readers' concepts of the particular environmental impacts may not at all be the same as those of the authors of this EIS!

IND28-3

Also, if you have already obtained information concerning the adverse environmental impacts from the review comments from federal, state, and local agencies, and input from public groups and individual citizens, then why are you now again asking for comments from readers of this Draft EIS?

IND28-4

NOW, ABOUT THE ADVERSE “ENVIRONMENTAL” IMPACTS OF THE PROJECTS

In short, and again in general, all adverse environmental impacts of these projects are BAD! – i.e., UNACCEPTABLE!”

5.1.2 Geology

“Intense ground shaking, lateral spreading, and subsidence caused by an earthquake pose design issues for the terminal site.” (That is the third sentence in the first paragraph on page 5-4.) I believe it is an understatement! Also, the mitigation efforts mentioned underneath this heading, whatever they are, **can never be enough!** And if a person believes they can ever be enough, that person is just engaging in wishful thinking.

IND28-5

IND28 Continued, page 3 of 7

IND28-2 The FERC is requesting comments from the public on the potential environmental effects, reasonable alternatives, and measures to avoid or lessen environmental impacts. The more specific your comments are, the more useful they will be. Inviting comments on a DEIS is a requirement of the regulations for implementing the National Environmental Policy Act (NEPA) issued by the Council on Environmental Quality at Title 40 Code of Federal Regulations (CFR) Part 1503.

IND28-3 The term "significant" is defined under the CEQ regulations for NEPA documents, and is used in all Federal NEPA assessments (i.e., if a project would have "significant" impacts, then an EIS is triggered, otherwise, an Environmental Assessment (EA) is conducted). Terms such as "avoid", "minimize", and "mitigate" are also widely used terms when defining the process of reducing or compensating for potential impacts of a project. The opinions in the DEIS are the conclusions and recommendations of the document authors; which include FERC staff, our third-party environmental contractor, the federal cooperating agencies and their contractors. These authors are scientists with expertise in various resource topics.

IND28-4 The FERC is requesting comments from the public on the potential environmental effects, reasonable alternatives, and measures to avoid or lessen environmental impacts. The more specific your comments are, the more useful they will be. Inviting comments on a DEIS is a requirement of the regulations for implementing the National Environmental Policy Act (NEPA) issued by the Council on Environmental Quality at Title 40 Code of Federal Regulations (CFR) Part 1503.

IND28-5 The recommended measures to mitigate for a possible future earthquake and ground shaking were reviewed by a consultant from California who is an expert in seismic design. While there have been many strong earthquakes in California, we are unaware of any significant damage those earthquakes caused to FERC jurisdictional natural gas facilities in that state.

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The following quote is from the second sentence of the second paragraph on Hard Copy Page 5-4 and CD Page 1368: "...the site-specific tsunami studies coupled with Jordan Cove's proposed mitigation measures indicate that the site is not unsuitable due to tsunami hazards." Whoever believes that statement is a naive fool!

Also, the **doubtful adequacies** of the earthquake mitigation efforts for the Pacific Connector gas pipeline are enough to make that project unfeasible. | IND28-6

The EIS has several supposedly reassuring statements. For instance, one (located at the end of the fourth paragraph on page 5-4) is:

"Pacific Connector would have the trench examined during construction for evidence of stratigraphic offsets potentially related to ground rupture. If such features are observed, Pacific Connector would implement additional mitigation measures at these locations, including burying the pipe in a wider trench to be backfilled with loose gravel or sand, which would allow for relatively unrestrained movement of the buried pipe within the zone of fault movement."

The operative word in that paragraph is "relatively," referring to the words "unrestrained movement of the buried pipe within the zone of fault movement."

Such a statement is ridiculous! Nobody can guarantee that!

Therefore, I believe it is just another reason why both of the two projects should be simply abandoned and forgotten. | IND28-7

5.1.3 Soils and Sediments

"Pacific Connector prepared an **HDD Contingency Plan and Failure Procedure that describes measures to contain an inadvertent release of drilling mud during the HDD process.**" (That is the last sentence in the first complete paragraph on Hard Copy Page 5-7 and CD Page 1372.) Again, as far as this commenter can determine, there is no way the commenter can access that Plan from this EIS. The EIS should make it abundantly clear how that "*Plan*" can be accessed by a person trying to comment on this EIS. To that extent, **this EIS is inadequate!** | IND28-8

But if the release of drilling mud is "inadvertent" during HDD drilling, as the sentence indicates, then that is just another reason why the Pacific Connector Project **should not go forward!**

5.1.6 Wildlife and Aquatic Resources

Starting at the bottom of hard copy page 5-12 (CD page 1376) and continuing over on hard copy page 5-13 (CD page 1377), the EIS has this following statement: | IND28-9

"Most effects from pipeline construction across streams would result in short-term impacts on water temperature, pH, dissolved oxygen, benthic invertebrate populations, and aquatic species. To improve

IND28 Continued, page 4 of 7

- IND28-6 The safe operation of the project is addressed in section 4.13 of the DEIS. As stated in section 4.2.1.3 of the DEIS, the project would design and construct its facilities in a manner that takes geological conditions, such as an earthquake, into consideration.
- IND28-7 Comment noted.
- IND28-8 See response to IND28-1.
- IND28-9 Comment noted.

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stream habitat, and mitigate for impacts, Pacific Connector is proposing to install LWD at selected locations."

"LWD," of course, stands for "Large Woody Debris," but placement of LWDs will not be enough to compensate for the adverse impacts of high water temperatures, improper levels of pH, low or non-existent dissolved oxygen, especially when water levels are unsatisfactorily low.

That EIS mitigation statement about high water temperatures, improper levels of pH, and low or non-existent dissolved oxygen is just one more example of the many such mitigation statements contained in this EIS. It brings up the question of construction timing. But that question also involves the degree of the adverse environmental impacts. The fact remains that whatever the degree (or type) of adverse impacts result from these projects, the adverse impacts are simply not acceptable – because they result in further degradation of the natural environment!

4.7.1.3 Fish

Coho Salmon-Southern Oregon/Northern California Coast ESU (Federal Threatened)

The Project is likely to adversely affect coho salmon in the SONCC ESU for the following reasons:

- exposure of juveniles to elevated TSS (Total Suspended Solids) concentrations during dry open-cut construction (fluming or dam-and-pump) for more than 20 hours. Such an exposure could cause a short-term reduction in both feeding rate and feeding success;
- exposure of juveniles to elevated TSS concentrations during dry open-cut construction (fluming or dam-and-pump) for 40 hours or more. Such an exposure could cause minor physiological stress in juvenile coho salmon;
- a site crossing failure while dry open-cut construction is underway could result in elevated TSS concentrations, which could cause moderate physiological stress to coho salmon;
- blasting at 17 streams where this species occurs could cause mortality to fish by rupturing swim bladders;
- fish salvage would occur for some dry stream crossings. During fish salvage operations, coho salmon are considered vulnerable to electrofishing, subject to injury and mortality. Seining and handling may also adversely affect Oregon Coast coho salmon; and
- lack of LWD is a limiting factor in most streams within range of SONCC coho salmon. Removal of mid-seral riparian forest (40 to 80 years old) would have long-term effects to recruitment of LWD, and removal of LSOG forest (80 years old or older) would have permanent effects to recruitment of LWD because planted conifers would not attain those age classes within the 50-year life of the Project. The Project may affect designated critical habitat for coho salmon in the SONCC ESU because:

IND28-9 Cont'd

IND28-10

Page 5 of 7

IND28 Continued, page 5 of 7

IND28-10 The project would need to meet conditions for takes identified in the Biological Opinion (BO) issued by NMFS and the FWS. The BO would not be completed until after the NEPA analysis and Biological Assessment by FERC are completed.

Fred Fleetwood's Comments on Pacific Connector Gas Pipeline Draft EIS

- the Pacific Connector pipeline crosses designated critical habitat within waterbodies of the Upper Rogue HUC (17100307) below the Lost Creek, Willow Creek, and Fish Lake Dams.

The Project is **likely to adversely affect** proposed critical habitat for coho salmon in the ONCC ESU for the following reasons:

- freshwater spawning sites would potentially be affected over the short term by dry open-cut and diverted open-cut construction methods that would remove substrate at crossing sites and produce turbidity downstream that could affect previously utilized redds;
- increases in turbidity are expected to temporarily affect the water quality downstream from stream crossing sites during construction;
- food resources would potentially be affected over the short term by dry open-cut and diverted open-cut construction methods that would remove substrate and benthos at crossing sites;
- freshwater migration corridors would potentially be affected over the short term by dry open-cut and diverted open-cut construction methods that would create temporary barriers to in-stream movements; and
- approximately 105 acres of native riparian vegetation (forest, wetlands, and nonforested habitats) and altered habitat would be removed during construction within riparian zones associated with designated critical habitat. Adverse effects to riparian zones would be long term or permanent depending on whether mid-seral riparian forests (24 acres) or LSOG riparian forests (25 acres) are removed.

IND28-10
Cont'd

The above statements concerning the **Southern Oregon/Northern California** coho salmon, and especially the following statement alone, in and of itself, make the proposed Pacific Connector portion of the project **ABSOLUTELY ILLEGAL!**

- “blasting at 17 streams where this species occurs could cause mortality to fish by rupturing swim bladders;”

That's because the Federal Endangered Species Act (The “ESA”) makes “... it unlawful for any person to ‘take’ endangered or threatened species, 9(a)(1)(B), and defines ‘take’ to mean ‘harass, harm, pursue,’ ‘wound,’ or ‘kill,’ 3(19).” That quote is found on the Internet at <http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=US&vol=515&invol=687>.

In addition, that same Internet source (concerning the ESA) further defines “harm” to include “significant habitat modification or degradation where it actually kills or injures listed species.

All through this Jordan Cove/Pacific Connector EIS, the words like “lessen,” “reduce,” “avoid,” “minimize,” etc., etc., are used to try to convince the readers that all things about the construction of these projects are “oky-fine,” and “hunky-dory,” **but they are not!**

Page 6 of 7

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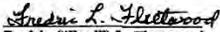
IND28 Continued, page 7 of 7

Fred Fleetwood's Comments on Pacific Connector Gas Pipeline Draft EIS

In Summary, Therefore:

Thus, I am ending this comment letter (even though it undoubtedly is not as comprehensive as desired) by simply saying that **FERC should not give its blessing (approval) to these (in reality, two) projects!**

Sincerely,


Fredric ("Fred") L. Fleetwood

Page 7 of 7

20141201-4011 FERC PDF (Unofficial) 12/01/2014

IND29

IND29 Kathi L. Windsor and David A. Schmidt, Coos Bay, OR

November 15, 2014

Federal Energy Regulatory Commission
888 First Street
NE, Room 1A
Washington, D.C. 20426

Attention: Kimberly D. Bose, Secretary

RE: (CP13-483-000 and CP13-492-000)

Dear Federal Energy Regulatory Commission,

We would like to thank the Federal Energy Regulatory Commission for their decision “NOT” to use the Modified Blue Ridge Alternate Route for the Pacific Connector Gas Pipeline Project, (CP13-492-000, CP483-000).

We are wholly in agreement with their decision, and are eternally grateful for the due diligence on their part to avert the catastrophic consequences of such a project on our pristine old growth forest, as well as the irreparable damage that could have befallen our private lands, homes and our lifestyle.

However, for as long as any possibility exists for the Modified Blue Ridge Alternative Route to become the primary segment alignment for the PCGP, we will go on record as voices of opposition to its use. We will stand as a proponent of the documented Federal Energy Regulatory Commissions advisement against its use.

IND29-1

It could only have been without adequate knowledge or without conscience, that the Modified Blue Ridge Alternative Route was even proposed. Please allow the voices of those of us who reside on Daniels Creek Road to stay in the forefront of your thoughts, and ultimately in the final outcome of your decisions. Please do not forget the ultimate travesty of having the pipeline constructed on Blue Ridge Road.

Without even entertaining the havoc and eternal destruction that would descend upon, and around the area of Blue Ridge Road, and the surrounding

IND29-1 Comment noted.

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IND29 Continued, page 2 of 5

forest, please allow those of us who reside just on Daniels Creek Road alone, to reiterate, as follows, the impact the Modified Blue Ridge Alternate Route would have on our properties and personal quality of life should “ever” the possibility of this proposal arise in the future.

If, the Modified Blue Ridge Route, had been approved it would quite probably have utilized the following roadways.

When the construction of the pipeline was in the Coquille vicinity, there would have been three accesses to the construction of the pipeline on Blue Ridge Road.

The three roads that would have accessed the construction route would have seen a considerable increase in use. Well and far in excess of their intended use. Not only would the increase have include the “to and from”, daily travel, of the construction workers vehicles, it would have include transport of materials and heavy equipment. The materials and equipment would be the size of which many people cannot visualize. They would be massive. Definitely, not the size and weight our roads, and simple country bridges were constructed for.

As the project reached the mid point of construction it would only make sense for both, drive time and approach, that those three accesses would have been for the most part reduced to two accesses.

Those two access roads each come out of Coos Bay, through East Side, then split. One road would travel South on Catching Slough Road to Stock Slough Road then turn east, to Blue Ridge Road, then turn south. The second would travel seven miles down South Coos River Lane, then five miles down Daniels Creek Road, then one and a half miles up the Blue Ridge turnoff, which is BLM road marker 26 - 12- 14.0 to Blue Ridge Road.

The south Coos River Lane is a winding roadway that follows the Coos River at its bank. The pavement is rough and uneven. The road is riddled with pot holes and is in general disrepair. The roadway is without guard rails, street lamps, is teaming with wildlife and quite often this entire stretch of road is soaked in with fog. Most every year Coos River Lane will flood at some point during the rainy season.

IND29-2 Comment noted. No decision has been made at this time. If the Blue Ridge Alternative were to be selected, the Transportation Management Plan in the applicant's Plan of Development would be revised.

IND29-2

Although, Coos River Lane has seen some “unusually positive attention” of late, in regards to repair, perhaps in anticipation of this project, it is still in disrepair.

Daniels Creek Road is a typical country road. It was meant to be “used” as a typical country road and although, it too, has seen some of this same, “unusually positive attention” it is by no means constructed for heavy traffic year around.

Most of us who live out Daniels Creek Road can attest to the facts as follows:

A. During “every” rainy season trees fall across the road. The massive maples are especially prone to falling because they are moss covered and become saturated. These fallen trees render the road impassible. Quite often taking out electrical lines. Neighbors generally work together to remove the trees and open the roads however, sometimes this is not possible and we have to wait on the county. It is in these times some of us are left without access to town except up over Blue Ridge Road. If, of course our vehicle is four wheel drive. Blue Ridge Road, which is BLM road 26 -12-14.0 is extremely steep, unpaved, and can in itself be inaccessible due to fallen trees or slides.
(See A 1-6 on disc)

B. Most every year the pavement cracks and falls off somewhere reducing travel to one lane.
(See B 1-5 on disc)

C. There are many areas prone to slides.
(See C 1-2 on disc)

D. The majority of Daniels Creek Road is access through private property. There are areas where the access on either side of the road is merely footsteps to a barn or a front door.
(See D 1-5 on disc)

E. Daniels Creek Road is fraught with hairpin turns that reduce travel in a large vehicle to a single lane passage.

IND29-2
Conf'd

(See E 1-2 on disc)

F. The bridging on Daniels Creek is not only antiquated and in disrepair but it spans the "protected habitat" which is approximately five miles of a "salmon spawning" Creek, which is Daniels Creek.

(See F 1-3 on disc)

G. The roadway teems with wildlife in the morning and evening.

H. There are natural water bars from rain run-off that can run swiftly sometimes washing an area of roadway away or causing damage.

I. Daniels Creek Road is icy in the winter. With the other existing road conditions it is a dangerous road to travel to those unaccustomed to, or unaware of the conditions.

(See 1-3 on disc)

J. Other than on the bridges, there are no guardrails. This leaves our habitat protected "salmon spawning" creek an open pit to spills and environmental damage from vehicular accidents.

(See 1-6 on disc)

K. There are no street lamps. It is pitch black at dark and dawn. Coupling the lack of light with fog and wildlife, it is an accident waiting to happen for those unfamiliar with the hairpin turns, and areas of one lane passage.

L. There are very few reflective markers to warn of change of roadway, hairpin turns, and icy conditions.

(See 1-3 on disc)

M. Daniels Creek can be a difficult or an impossible task during emergencies to bring an ambulance or a fire truck for rescue.

N. There is "NO" fire department willing to save our homes out here. The increased use, couple with the possibility of transporting flammable materials for use in construction of the pipeline, and the construction of the pipeline itself, multiplied by the dangerous road conditions is a license for disaster. There is no means to save our homes should an accidental fire occur. Many of these homes are located a matter of feet from the roadway.

IND29-2
Conf'd

It is unconscionable that fire protection isn't available to all of us on Daniels Creek even now. Coos Bay should be shamed by such medieval conditions. Increased use of this road would be a huge fire hazard without means of rescue.

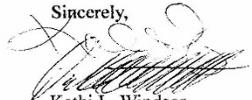
Once off Daniels Creek Road there is a new challenge ahead. The transport vehicles and the construction crew trying to gain access to their Blue Ridge Road construction site will now have the opportunity to traverse the Blue Ridge turnoff, which is BLM road 26 - 12 - 14.0.

The Blue Ridge turn off road has all of the obstacles of Daniels Creek Road, with two additions. It is steep. In some spots sheer cliff steep. The road is undeveloped in the respect that it is merely gravel and mud. It is unsuitable for any vehicle. It is suicide for a heavy truck, or a driver unaccustomed to the conditions. The road is extremely unpredictable in its use. It does not always remain open. Above all else for the people living on Daniels Creek Road, in the winter, even with all of the unpredictability, it remains, our only means of egress "when" one of the above described situations, (items A thru N), happens on Daniels Creek Road.

Once on Blue Ridge Road the topography maps speak for themselves. It is pristine old growth. It is sheer vertical drop. It is unsuitable, unsustainable, and unconscionable. All of which the Federal Energy Regulatory Commission "can" and "has" attested to.

To the Federal Energy Regulatory Commission, we commend your decision "NOT" to use the Modified Blue Ridge Route, and sincerely hope it will be upheld for all time.

Sincerely,



Kathi L. Windsor
David A. Schmidt
61433 Daniels Creek Road
Coos Bay, OR 97420
541-267-0482

IND29-2
Conf'd

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IND30

IND30 Maya Rommwatt, Dorena, OR

Maya Rommwatt, Dorena, OR.

The Jordan Cove LNG Terminal and Pipeline environmental impact study failed to consider this projects contribution to our climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction, or if it could tip us over into unlivable climate change.

IND30-1

IND30-1 See the response to IND1-1.

It is unconscionable for us to further climate change any longer. It is critical for us to begin mitigating climate change, and this project stands in opposition to that goal.

IND30-2 See the response to IND1-2.

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling, transporting, and processing into LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND30-2

IND30-3 See the response to IND1-3.

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue and expand fracking. Since this project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND30-3

IND30-4 See the response to IND1-4.

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND30-4

IND30-5 See the response to IND1-5.

Over 300 Oregon landowners are facing the threat of eminent domain from the 230-mile long pipeline needed to feed the LNG terminal. Veresen, a Canadian company is asking FERC to consider their enhanced profits from exporting LNG as a "public benefit", so they can condemn the land needed for the pipeline. Tell FERC not to give the right to a foreign company to condemn Oregonians land.

IND30-5

IND30-6 See the response to IND1-7.

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. While the standards are set by the Department of Transportation, FERC should have considered the impacts of lower safety standards in the rough mountains of rural Oregon. Veresen will save money by using thinner pipes, less welds, and a host of other cost-saving measures. If the pipeline blows up, fewer people die in rural areas. FERC should have considered if people lives are an acceptable trade for saving corporate profits.

IND30-6

IND30-7 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, 80% of which had been reserved for imperiled wildlife. Over 400 waterways will have their stream-side vegetation permanently cleared. FERC failed to fully consider

IND30-7

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the impacts to our endangered wildlife that depend on these forests and streams, like the spotted owl, marbled murrelet, and coho salmon.

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000+ page DEIS. This project is too big to give so little time for public input.

IND30-8

IND30 Continued, page 2 of 2

IND30-8 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

20141203-0021 FERC PDF (Unofficial) 12/03/2014

IND31 Tamara Wyndham, New York, NY

IND31

IND31-1 Comment noted.

Tamara Wyndham
463 West St. New York, NY 10014 CPB-492

Ray Johnson driving toward Tilghman Island, Maryland
September 24, 1965

"Tilghman Social News" The Star Democrat October 6, 1965
Miss Brenda Cooper, Correspondent:

"Ray Johnson an artist with the Woodpecker Galleries, New York, visited artist May Wilson at Walnut Point for Mr. and Mrs. William Wilson's 40th wedding anniversary."

Dear Ms. Base

I am writing to you about my
opposition to the Jordan Cove LNG
Terminal and pipeline. The leaking
methane is 86 times more potent
than burning coal. It is being built
in an earthquake and tsunami
zone. This is a dangerous project,
harmful to the environment & humans.

Tamara Wyndham

ORIGINAL

Kimberly Base
Secretary
FERC
888 First St. NE
Room 1A
Washington DC
20426

DEC 3
2014

IND31-1

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IND32

Mary Sharon Moore, Eugene, OR.
Veresen, a Canadian corporation, wants permission from the U.S. federal government to expand its energy empire by building the infrastructure for a liquified natural gas (LNG) terminal on the Oregon coast.

Permission would consist of "eminent domain" capture of forests, wildlife habitat, water systems, and private property, including productive farm land, all to ensure Veresen's energy empire profits.

No foreign for-profit corporation has any moral right to exercise "eminent domain" over U.S. lands and private properties for its private economic gain. "Creating jobs" is a thin veneer for corporate greed. And no U.S. federal, state, or county government has any moral right to aid such foreign-national corporate land grabs on U.S. soil.

IND32-1

Our citizens at the community, county, state, and federal levels are tired of inheriting the multigenerational environmental and social costs of unchecked corporate greed. Enough, already, of Veresen and its profit-thirsty ilk that suck the lifeblood out of our communities, our lands, and our natural resources.

IND32 Mary Sharon Moore, Eugene, OR

IND32-1 Impacts on landowners whose property would be crossed by the pipeline route, including effects on property values as well as the possibility of eminent domain, are discussed in section 4.9.2.3 of the DEIS.

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IND33

Leslie Burpo, Eugene, OR.

First, the Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND33-1

Second, natural gas is methane, and a percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND33-2

Third, the company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND33-3

Fourth, the Gorda Plate and the Juan de Fuca Plate are poised to unleash huge magnitude earthquakes that will destroy most of the infrastructure along the Oregon coast. No one could possibly think it would be a good idea to put up 80-million-gallon tanks of liquefied natural gas anywhere along these fault lines.

Obviously, FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND33-4

Fifth, FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND33-5

Sixth, FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND33-6

Seventh, this project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to

IND33-7

IND33 Leslie Burpo, Eugene, OR

- IND33-1 See responses to comment letter IND1.
- IND33-2 See responses to comment letter IND1.
- IND33-3 See responses to comment letter IND1.
- IND33-4 See responses to comment letter IND1.
- IND33-5 See responses to comment letter IND1.
- IND33-6 See responses to comment letter IND1.
- IND33-7 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.

20141204-5005 FERC PDF (Unofficial) 12/3/2014 7:25:53 PM

our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND33-7
Cont'd

Also, FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND33-8

Who is making a profit from this?

- See more at: <http://www.cascwild.org/lng-comments/#sthash.G0ceE97D.dpuf>

IND33 **Continued, page 2 of 2**

IND33-8 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

20141204-5009 FERC PDF (Unofficial) 12/3/2014 10:26:20 PM

IND34

Dawn M. Albanese, Elk Grove Village, IL.
The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND34-1

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND34-2

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND34-3

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND34-4

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND34-5

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND34-6

This project will clear-cut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and Coho salmon.

IND34-7

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND34-8

IND34 Dawn M. Albanese, Elk Grove Village, IL

- IND34-1 See responses to comment letter IND1.
- IND34-2 See responses to comment letter IND1.
- IND34-3 See responses to comment letter IND1.
- IND34-4 See responses to comment letter IND1.
- IND34-5 See responses to comment letter IND1.
- IND34-6 See responses to comment letter IND1.
- IND34-7 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.
- IND34-8 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

20141205-5154 FERC PDF (Unofficial) 12/5/2014 1:28:54 PM

IND35

Jemma Crae, Roseburg, OR.

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND35-1

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND35-2

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND35-3

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND35-4

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND35-5

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND35-6

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND35-7

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND35-8

- See more at: <http://www.cascwild.org/lng-comments/#sthash.UOWINMie.dpuf>

IND35 Jemma Crae, Roseburg, OR

IND35-1 See responses to comment letter IND1.

IND35-2 See responses to comment letter IND1.

IND35-3 See responses to comment letter IND1.

IND35-4 See responses to comment letter IND1.

IND35-5 See responses to comment letter IND1.

IND35-6 See responses to comment letter IND1.

IND35-7 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.

IND35-8 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

20141208-5033 FERC PDF (Unofficial) 12/6/2014 11:40:37 AM

IND36

Mary DeMocker, Eugene, OR.
Reason #1 to reject this monstrosity: Location. Who builds huge, potentially explosive facilities on one of the most dangerous earthquake and tsunamí zones in North America? Reason #2: Economics. Analysts say exporting cheap gas to world markets will push up gas prices here—which will raise the price of everything. Reason #3: Global warming. New major studies reveal that methane—4 - 12% of which leaks at every well—traps 86 times more unwanted heat than CO2. Leakage creates fugitive methane emissions throughout the gas supply chain, in drilling, production, transmission, processing, refining, and distribution.

IND36-1

Turns out, natural gas is not a good bridge fuel, much as we hoped otherwise. Overall, it's about as bad as coal. Which brings us to our new reality. We know fossil fuels threaten current and future generations with runaway climate change. It's time to stop building more of last century's dirty infrastructure and invest in renewables. Oregonians won't relinquish our safety, natural resources, or children's futures for profits of a private company.

IND36-2

It's chilling that an American regulatory agents--you fine folks-- are working so hard on behalf of a foreign company to shove this pipeline and terminal down the throats of your own citizens. Honestly, how do you justify that?

Any of you have kids? Have you read the recent reports from the IPCC and the World Bank detailing humanity's urgent need to re-tool away from fossil fuels and toward renewable energy sources? If not, please do your job and take a look at those reports. If so, you know you must, as both a responsible regulatory agent and a human being, deny this permit that will only add to the dangerous level of greenhouse gases in our atmosphere. Thanks for doing your best and doing what's right.

IND36-3

IND36 Mary DeMocker, Eugene, OR

IND36-1 Safety is addressed in section 4.13 of the EIS. The reasons why Jordan Cove selected Coos Bay as the location for its terminal are discussed in section 3.3.1 of the EIS. Jordan Cove would be required to design and construct its facilities to satisfy stringent design standards and codes that provide design requirements for geological conditions, including earthquakes and tsunamis. See also response to comment IND6-2.

IND36-2 It is the Department of Energy, not the FERC, that regulates the U.S. Energy policy. See response to IND6-1.

IND36-3 See response to IND1.

20141208-5034 FERC PDF (Unofficial) 12/6/2014 12:05:35 PM

IND37

Mary DeMocker, Eugene, OR. Seriously, how do you folks sleep at night? Reason #1 to reject this monstrosity: Your unbelievably lousy DEIS, which takes into account none of the real safety risks, irreversible damages to our resources, or the impact on a global climate already approaching tipping points of runaway climate change. Do you have kids you care about? Nieces and nephews maybe? OK, pets? All of them are threatened by climate chaos.

IND37-1

Reason #2: Misapplication of eminent domain. Veresen reps, straight-faced, claim that ranch and farmland, homes, old-growth forests, and endangered species' habitat should all be condemned (yes, literally) because it's in America's "public interest" that the foreign company reach Chinese markets. FERC bureaucrats blithely swallow this logic, along with plans for lower safety standards in rural areas. That means thinner pipes, fewer welds, fewer inspections, and heightened danger to nearby residents. I believe families along the pipeline care about not getting blown sky-high about as much as city-dwellers do. (I mean, wouldn't you if you lived there? And you'd also probably want to sing around the campfire now and then without fear of incinerating yourself.) Are you seriously proposing trading Oregonians' safety to save money . . . for foreign developers? Better think about that one a little longer. Maybe run that one by a priest, or someone you admire. How about Mom?

IND37-2

IND37-3

Reason #3: Salmon dinners. The Rogue River Basin has the 2nd largest run of Oregon's iconic fish. Why exchange the pristine habitat of our favorite Northwest dish for vague "we'll take care of it" promises from a foreign corporation? The behemoth pipeline of high-pressure methane would level everything in its 100-foot wide path as it lurches across no fewer than 379 Oregon waterways, some multiple times. How is this a good plan for Americans?

Reason #4: Economics. Analysts say exporting cheap gas to world markets will push up gas prices here—which will raise the price of everything.

IND37-4

Reason #5: Global warming. New major studies reveal that methane—4 - 12% of which leaks at every well—traps 86 times more unwanted heat than CO2. Leakage creates fugitive methane emissions throughout the gas supply chain, in drilling, production, transmission, processing, refining, and distribution.

IND37-5

Turns out, natural gas is not a good bridge fuel, much as we hoped otherwise. Overall, it's about as bad as coal. Sorry LNG exporters. Your product needs to go the way of the 8-track tape.

Which brings us to our new reality. We know fossil fuels threaten current and future generations with runaway climate change. It's time to stop building more of last century's dirty infrastructure and invest in renewables. Oregonians won't relinquish our safety, natural resources, or children's futures for profits of a private company.

IND37-6

It's chilling that an American regulatory agents—you fine folks-- are working so hard on behalf of a foreign company to shove this pipeline

IND37 Mary DeMocker, Eugene, OR

IND37-1 Climate change was addressed in section 4.14.3.12 of the DEIS. Greenhouse gas emissions resulting from the Jordan Cove Liquefaction and Pacific Connector Pipeline Projects (Project) were discussed in section 4.12.1.4 of the DEIS.

IND37-2 Nowhere in the DEIS is there a statement that the Project would be in the "public interest." In fact, the Commission would make its finding of public benefit in its decision-document Project Order. The EIS is not a decision-document. The Commission would issue its Order after we have produced an FEIS. Eminent domain is discussed in section 4.9.2.3 of the DEIS. The U.S. Congress decided to convey the power of eminent domain to private companies that receive a Certificate from the FERC when it passed section 7(h) of the NGA in 1947. The Commission would make its finding of public benefit in its decision-document Project Order. Impacts on ranch lands and farmlands are addressed in sections 4.1.2.2 and 4.3.2.1 of the DEIS. Impacts on homes are discussed in section 4.1.2.3. Impacts on forest are addressed in section 4.5. Impacts on federally listed threatened and endangered species are summarized in section 4.7.

IND37-3 As stated in Section 4.13 of the DEIS, the FERC does not establish safety standards for pipelines; those standards are set by the U.S. Department of Transportation (DOT). It is outside the authority of the FERC to revise or alter the DOT safety standards.

IND37-4 A 2012 study by the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE) stated: "...U.S. natural gas prices are projected to rise over the long run, even before considering the possibility of additional exports." Another 2012 study by NERA Economic Consultants for DOE found that the nation is "...projected to gain net economic benefits from allowing LNG exports."

IND37-5 See response to IND1-2.

IND37-6 It is the Department of Energy, not the FERC, that regulates the U.S. Energy policy. See response to IND6-1.

20141208-5034 FERC PDF (Unofficial) 12/6/2014 12:05:35 PM

IND37 **Continued, page 2 of 2**

down the throats of your own citizens. Honestly, how do you justify that? Have you read the recent reports from the IPCC and the World Bank detailing humanity's urgent need to re-tool away from fossil fuels and toward renewable energy sources? If not, please do your job and at least flip through a few pages. If so, you know you must, as both a responsible regulatory agent and a human being, deny this permit that will only add to the dangerous level of greenhouse gases in our atmosphere. Thanks for doing your best and doing what's right. You mom would be so proud.

IND37-7

Sincerely, Mary DeMocker

IND37-7 Comment noted.

20141208-5043 FERC PDF (Unofficial) 12/6/2014 5:32:44 PM

IND38

Barbara Dickinson, Wolf Creek, OR.

As a native Oregonian, I am apposed to the construction of the Jordan Cove pipeline, and the proposed export facility. I grew up on the Newport Oregon coast, and have seen first hand the fragility of coastal ecosystems: small changes can cause lasting and devastating effects on our marine life, fishing economies and coastal beauty. The proposed facility as it is planned is too risky, for too little benefit. Just the construction and water-way traffic, alone, would harm the existing ecosystem, and the high potential for accidents, caused by human error, erratic weather and oceanic behavior (which we have seen more of in recent years) and the likelihood of an earthquake in that area, pose to many dangers to the environment, sea life and human inhabitants and potential employees of the facility. We must look beyond the pocket books of a few well-to-do people, and consider the cost in terms of quality of life, and environmental sustainability.

IND38-1

IND38-2

The proposed terminal site is in Coos County Oregon, an area hit hard with economic hardship, with unemployment rates hovering around 11%. The people in this community do not all have the resources to protect themselves from the potential dangers the terminal poses: economic hardships prevent relocation for such "luxuries" as health and safety, and pressure to find work may influence many to risk their health and that of the environment they love, in exchange for low wages offered at the facility. This is a vulnerable population that should not be taken advantage of.

IND38-3

And where is this fuel that is to be exported going to come from? That's an awful big project to plan without adequate existing supply of export material, or are there plans to begin fracking in central Oregon and Northern California? Who will be benefiting? The big business, China, Veresen in Canada? What is the cost? Fracking is harmful to the environment, to the people and animals and the world climate. We must not continue to expand this source of fuel. We must turn our focus to environmentally stable methods of producing energy. Has FERC done adequate research on the harmful effects of fracking? Do we know the planned fracking areas, and is there consent from effected citizens to frack in those areas ?

IND38-4

The use of immanent domain laws to ravage the land of Oregon residents is unconscionable in this situation. When first proposed, the project was being pushed through as an "import" line. As such, one could say that energy security was a good enough reason to clear out 100' swaths and tunnel through miles and miles of privately owned land, without adequate land owner consent nor compensation, or even adequate safety standards. Now that we know the plans were for export, does that change the picture some? Yes! "Financial Security" is not a justifiable reason to seize any american citizen's land. Jordan Cove Energy and PCGP erroneously claimed orignal "public interest" from this project, and now the "interest" is for a foreign company, not adequate reason to condemn Oregon land for their pipeline. What "public good" is being served? Is my land vulnerable if a private company decides they want to build a factory on it? We cannot allow this kind of precedent to endanger our Oregon farms and

IND38-5

IND38 Barbara Dickinson, Wolf Creek, OR

IND38-1 Comment noted.

IND38-2 The impacts of LNG vessel marine traffic in the waterway to the Jordan Cove terminal on the marine ecosystem are addressed in sections 4.4 and 4.6 of the DEIS. The safe operation of the Project is addressed in section 4.13 of the DEIS.

IND38-3 Socioeconomic impacts and benefits from this Project, as well as environmental justice were addressed in section 4.9 of the DEIS. Jordan Cove has signed agreements with Coos County and the State of Oregon to provide local resources for the protection of the communities near the LNG terminal.

IND38-4 The natural gas supplies for the Jordan Cove terminal would come from the Rocky Mountain region and western Canada, transported by the Pacific Connector pipeline through its interconnections with GTN and Ruby, as stated in the DEIS. Currently, virtually no natural gas is produced in Oregon. Nor will this Project obtain natural gas from California. See response to IND1-3.

IND38-5 The U.S. Congress decided to convey the power of eminent domain to private companies that receive a Certificate from the FERC when it passed section 7(h) of the NGA in 1947. As explained in the DEIS, the construction right-of-way would be restored after pipeline installation, and landowners would be compensated for any damages. The construction right-of-way would be 95 feet wide. The Commission would make its decision on public benefit in its Project Order.

20141208-5043 FERC PDF (Unofficial) 12/6/2014 5:32:44 PM

IND38 Continued, page 2 of 2

family homes. As stated in Executive Order 13406, the use of eminent domain must be limited. And what an oxymoron we have here: "public safety" is one of the justifiable reasons for governmental appropriation of land, and what FERC is planning poses imminent danger to the landowners whose land they want to tunnel through in order to send highly flammable fuel for a corporation to sell, so a different country can have energy security. The public was duped when FERC lied about the intended use of the pipeline. And many of those landowners are elderly, have been intimidated into submission, or do not have the financial ability to defend themselves. Again, environmental injustice is at play, here.

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND38-6

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG. As global citizens, we cannot allow continued greenhouse gas emissions. We have a responsibility to our children to at least stop this damaging impact.

IND38-7

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND38-8

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND38-9

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND38-10

- See more at: <http://www.cascowild.org/lng-comments/#sthash.QH4SVmcl.dpuf>

- IND38-6 This appears to be based on a form letter. See responses to IND1.
- IND38-7 This appears to be based on a form letter. See responses to IND1.
- IND38-8 This appears to be based on a form letter. See responses to IND1.
- IND38-9 Impacts on old growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.
- IND38-10 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

20141208-5051 FERC PDF (Unofficial) 12/6/2014 10:56:27 PM

IND39

Gregory Zorn, Sutherlin, OR.

I'm retired and I really don't want to spend my remaining years involved in political debates, anger, and stressful situations. However, this debate about the benefits and potential disasters that await the communities of Klamath, Jackson, Douglas and Coos counties seems important for reasons other than the environment and eminent domain issues.

I feel that our country is becoming more controlled by money and power and greed than at anytime during my lifetime. I'm sure that's been said many times over the centuries, but it seems more prevalent in recent years.

Here is my suggestion. Since this project is for the benefit of the public and not for the defense of our nation or some other national emergency why not put it to the vote of the people it affects - the four counties.

If it is approved by the voters then it ends the debate and eminent domain is approved by the people. The environment will be affected for sure, but it will recover.

Sincerely, Greg Zorn

IND39-1

IND39 Gregory Zorn, Sutherlin, OR

IND39-1 The people elected via the voting process, the U.S. Congress, passed the NGA. The NGA grants the FERC the authority to review and regulate these types of projects. The NEPA process required the production of an Environmental Impact Statement (EIS) for projects that 1) trigger a federal nexus, and 2) could have significant impacts to the environment. FERC is complying with the requirements of NEPA through the production of this EIS.

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IND40

IND40 Sylvia Yamada, PhD

IND40-1 Effects on crabs and other species in the bay are discussed in section 4.6.2.

Potential Impact of
Jordan Cove LNG Terminal construction on
the Nursery Habitat of Dungeness crab.

December 2014

Sylvia Yamada Ph.D.

yamadass@science.oregonstate.edu

The **Dungeness crab** (*Cancer magister*) supports an important commercial and sport fishery from Alaska to California. Total annual landings in recent years exceeded 25,000 tons (55 million pounds) (FAO statistics, 2012). In Oregon, the 2014 Dungeness fishing season yielded 14.4 million pounds, \$50 million to crabbers and an estimated \$100 million to the Oregon economy (Oregon Dungeness Crab Commission in Fisherman's News On line). The Dungeness fishery is the most valuable commercial fishery in Oregon (Rasmusen 2013).

The life cycle of Dungeness crab is complex, depending on both estuarine and near-shore habitats. Typically, mating occurs in shallow water, and females migrate offshore to brood and hatch their eggs. The early larval stages feed and rear in the near-shore water column, after which the final larval stage rides tidal currents back to shore and settles out in shallow estuarine habitats. The final larval stage molts into a ~5 -7 mm wide first crab stage. The highest densities of juvenile Dungeness crabs are found in estuaries, which provide warm water, high biological productivity and protection from predators. Sand substrate and eelgrass beds are preferred habitat for these young crabs, which bury in the sand and hide in the eelgrass to escape predators. Size measurements of crabs trapped at Russell Point in Coos Bay (below the Highway 101 McCullough Bridge) show that Dungeness crabs in their first two years of life (100 mm carapace width and smaller) are extremely abundant in the mid-to low intertidal areas such as pools and eelgrass beds (Figure 1).

In my research documenting the status of the non-native European Green crab in Coos Bay, I encounter young Dungeness crabs in all my study sites. I selected a sub-set of my sites closest to the proposed Jordan Cove Energy Project: the north and south sides of Trans Pacific Lane and the beach adjacent to the Roseburg Forest Product watchman's booth. The results from over 600 trap-days, show that young Dungeness crabs are consistently abundant from 2002 to 2014 at all sites, with an average catch of 15 per trap (Table 1). These trapping results confirm the findings by Emmett and Durkin (1985) that estuaries are important nursery habitats for Dungeness crabs. This needs to be kept in mind when the Trans Pacific Parkway is to be expanded and an upland area is to be cut out to create a berth for ocean-going vessels. Not only will the turbidity during the construction phase be of concern to the ecological community, the on-going dredging to maintain the berth and shipping channels will continue be a disturbance to the ecosystem. It will result in habitat loss for native species, including the valuable Dungeness crab. In one study between 45 to 85 % of the Dungeness crabs died during a simulated dredging operation (Chang and Levings, 1978). Marine habitat modification by construction of the Jordan Cove Energy Project could impact the important Oregon Dungeness fishery.

IND40-1

Sylvia Yamada is a marine ecologist who has studied native crabs and the European green crab in Oregon and Washington for over 20 years.

References:

Chang, B., Levings, C. 1978. Effects of burial on the heart cockle *Clinocardium nuttallii* and the Dungeness crab *Cancer magister*. *Estuarine, Coastal and Shelf Science*. 7, 4009-412.

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Fisherman's News On line Sept 24, 2014 <http://fnonline.com/2014/09/oregons-crabbers-riding-market-value.html>

Rasmuson, L.K. 2013. The Biology, Ecology and Fishery of the Dungeness crab, *Cancer magister*. In Michael Lesser, editor: *Advances in Marine Biology*, Vol 65, Burlington: Academic Press, pp. 95-148. ISBN: 978-0-12-410498-3 Elsevier Ltd. Academic Press.

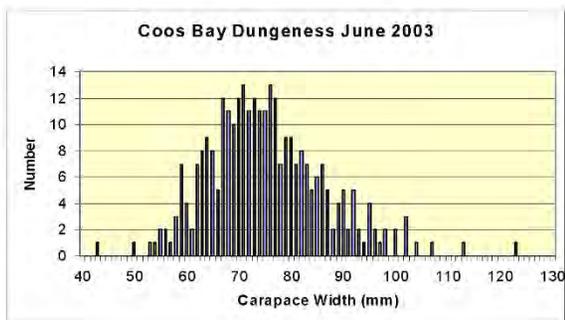


Figure 1. Size frequency distribution of Dungeness crabs trapped in pools and eelgrass at Russell Point, below the Highway 101 McCullough Bridge, in June 2003. Adult crabs are greater than 100 mm in carapace width. It is estimated that 2 year classes are represented.

Table 1. Trapping Data for study sites along Trans Pacific Lane and Roseburg Forest Product Causeway from 2002-2014.

	Date	Trap Type	Zone	European Cottontail Carinus maenas	Hairy shoxe Hemipatus oregonensis	Purple shoxe Hemipatus nivalis	Dungeness Cancer magister	Cancer (Residuals <50mm)	Red rock Cancer productus	slag from scullin	# Traps
Roseburg Lumber	6/25/2002	Fish	Site	0	0	0	45	0.5	0.1	0	10
Roseburg Lumber	6/16/2003	Fish	low	0	0	0	12.2	0	0.7	1.5	10
TransPacific S	7/10/2005	Fish	low	0	0	0	6.14	1.14	0	1.86	7
North	7/10/2005	Fish	low	0	0	0	0	5.7	0	1.1	10
South	3/25/2005	minnow	Mid	0	0	0	0	0	0	2.4	10
North	7/10/2005	minnow	mid	0	0.2	0	0	0.6	0	0.8	5
South	7/10/2005	minnow	mid	0	0	0	0	0.4	0	0.6	5
Trans-Pacific Bridge	9/12/2005	Fish	Low	0	0	0	6.6	0	0	3	1
	9/1/2005	Minnow	high	0	0	0	0.2	0	0	0.4	4
Trans-Pacific Ln.	6/6/2006	Fish	Low	0	0	0	4.9	0	0	2.6	10
	9/13/2006	Fish	Low	0	0.4	0	0.2	0	0	0.2	5
	6/8/2006	Minnow	high	0	0	0	0.7	0	0	2.3	10
Trans Pacific Br.	9/13/2006	Minnow	Mid	0.2	0	0	0	0	0	0.2	5
TransPacific Ln N	5/25/2007	Fish	Mid	0.5	0.2	0	1	0.1	0	0.8	10
	7/14/2007	Fish	Mid	0.4	1.47	0	23.53	0	0	0.2	15
	9/26/2007	Fish	Mid	0	0	0	4.75	0	0	0	8
TransPacific Ln. S	5/25/2007	Fish	Mid	0.09	0	0	0.82	0	0	0.36	11
	7/14/2007	Fish	Mid	0.27	0.07	0	9	0	0.07	1	15
	9/26/2007	Fish	Mid	0	0	0	2.71	0	0	0.14	7
TransPacific Bridge	5/25/2007	Fish	Mid	0	0	0	1.33	0	0	0	6
TransPacific Ln. N	9/25/2007	minnow	high	0	0	0	1.6	0	0	0.4	5
	6/19/2008	Fish	Mid	0.1	0.2	0	7.4	0	0	7.8	10
	6/19/2008	Fish	Mid	0	0	0	1.75	0	0	3.25	8
	9/18/2008	Fish	Mid	0	0.1	0	23.4	0	0	0.7	10
TransPacific Ln. S	6/18/2008	Fish	Mid	0.5	0	0	17.2	0	0	2.2	10
	6/19/2008	Fish	Low	0.37	0	0	17.63	0	0	1.37	8
	9/18/2008	Fish	Mid	0.1	0	0	22.6	0	0	0.3	10
TransPacific Ln. N	7/8/2009	Fish	Mid	0.13	0	0	9.88	0	0	0.38	8

7/9/2009	Fish		0.1	0.2	0	11.3	0	0	0.3	10
07/0/09	Fish		0.1	0	0	11.7	0	0	0.5	10
TransPacific Ln S	Fish	Mid	0	0	0	24.38	0	0	0.25	8
7/8/2009	Fish		0.1	0	0	30.2	0	0	0.9	10
7/9/2009	Fish		0.4	0	0	16.6	0.1	0	0.5	10
7/10/2009	Fish		0.4	0	0	13.1	0	0	2.7	10
7/11/2009	Fish	Mid	0	0.4	0	0.7	0	0	0	10
3/19/2010	Fish		0	0.1	0	0.1	0.2	0	0	10
3/20/2010	Fish		0	0.3	0	0.3	0.4	0	0	10
3/21/2010	Fish		0	0	0	35.7	0	0	1.1	9
6/25/2010	Fish		0	0	0	75.9	0	0	0.4	10
6/26/2010	Fish		0	0	0	1.9	0.9	0	0	10
3/19/2010	Fish	Mid	0.1	0	0	1.7	0	0	0	10
3/20/2010	Fish		0	0	0	2.5	0.1	0	0	10
3/21/2010	Fish		0	0	0	90.6	0	0	0	10
6/25/2010	Fish		0	0	0	69.9	0	0	1.6	20
6/26/2010	Fish	Mid	0	0.6	0	4.73	0.27	0	0.73	15
7/17/2011	Fish		0	0	0	5.3	0	0	0.2	10
10/17/2011	Fish		0	0	0	1.5	0.06	0	1.53	34
7/16/2011	Fish	Mid	0.03	0.09	0	2.07	0.47	0	1.2	15
7/17/2011	Fish		0	0.13	0	89.2	0	0	0.4	5
6/27/2012	Fish	Mid	0	0	0	9.75	0	0	0.75	12
6/25/2012	Fish	Mid	0	0	0	5.2	0	0	0.67	9
6/27/2012	Fish	Mid	0.11	0	0	1.75	0	0	0	20
TransPacific Ln S	Fish		0	0	0	6.79	0	0	0	19
3/23/2013	Fish		0	0	0	7.37	0	0	1.6	30
7/12/2013	Fish		0	0	0	5.24	0	0	1.48	25
7/13/2013	Fish		0	0	0	40.33	0	0	0.5	12
7/12/2014	Fish		0	0	0	24.9	0	0	0.4	12
7/13/2014	fish		0	0	0	47.27	0	0	0	15
7/12/2014	Fish		0	0	0	23.83	0	0	0	12
7/13/2014	fish		0	0	0	14.955	0.067	0.065	0.874	649
Average			0.068	0.075	0					
Total # Traps										

20141209-5003 FERC PDF (Unofficial) 12/8/2014 7:01:57 PM

IND41

Joshua Berger, Portland, OR. Hi Thanks for considering this comment. There are many, many reasons why this application should be denied. More reasons that I can possibly fit in the allotted space. So I will simply list a few.

1. First and foremost: There is no American public benefit in exporting gas coming from Hydraulic Fracturing of Shale beds.

IND41-1

Why would we invest in anything that promotes the use of fossil fuel which we know is harming our entire planet--and us.

If Veresen wants to invest in something beneficial, they should abandon their idea of placing an LNG export terminal in the Port of Coos Bay and work instead with locals to build a sustainable 100% renewable energy future here.

As if we need more reasons. But, there are many. Here are nine more.

2. There is no American public benefit in increasing our domestic natural gas prices.

3. There is no American public benefit in building a hazardous LNG export facility at the end of an active airport runway in a tsunami inundation and earthquake subduction zone, putting thousands of AMERICAN LIVES at risk!

IND41-2

4. There is no American public benefit in a 95 + foot clear-cut for 232 miles through our American private property, forestlands and waterbodies by the proposed Pacific Connector Gas Pipeline, a vital component of the Jordan Cove LNG Export project. The proposed pipeline would snake an 8-lane highway of destruction through Southern Oregon.

5. There is no American public benefit in the use of EMINENT DOMAIN for the profit of a foreign energy company.

6. There is no American public benefit in thousands of American citizens living in the extreme hazard zones of proposed Jordan Cove LNG Export terminal and Pacific Connector Gas Pipeline (PCGP).

7.

IND41 Joshua Berger, Portland, OR

IND41-1 The Project does not involve the hydraulic fracturing of shale beds. See response to IND1-3. The Commission would determine public benefit in its Project Order. The DOE already decided that Jordan Cove may export LNG.

IND41-2 There is no evidence that the Project would result in higher domestic natural gas prices. See response to IND37-4. Safety is addressed in section 4.13 of the DEIS. Potential impacts on the Southwest Oregon Regional Airport was discussed in section 4.10.1.4. See response to comment IND3-8. See response to comment IND6-2. The DEIS addressed potential pipeline-related impacts on private property owners in section 4.9.2.3, on forest in section 4.5.1.2, and on surface waterbodies in section 4.4.2.2. After pipeline installation the construction right-of-way would be restored and revegetated. However, a 30-foot-wide strip over the centerline would be kept clear of trees; which would be equivalent to a one lane road. The U.S. Congress decided to convey the power of eminent domain to private companies that receive a Certificate from the FERC when it passed section 7(h) of the NGA in 1947. The Commission would make its decision on public benefit in its Project Order. During LNG vessel transits Coos Bay would not be closed. Read section 4.10.1.1 of the DEIS. No jobs would be lost in manufacturing, timber, ranching, farming, fishing, or recreation as a result of this Project (see section 4.9 of the DEIS).

There is no American public benefit to all the Bay closures that will occur due to the safety and security zones of transiting LNG tanker ships.

8.

There is no American public benefit to the loss of fish, marine and wildlife habitat due to the destructive nature of pipeline construction projected to impact 400 waterbodies in Southern Oregon alone, many salmon bearing.

IND41-2
Confid

9.

There is no American public benefit to the negative impacts of the proposed Jordan Cove LNG Export Project on tourism, recreation, fishing, farming, timber harvesting, ranching, crabbing, clamming, oyster harvesting, property values (and use), real-estate, local homeowners insurance rates, transportation (land, water & air travel), noise, air and water pollution and water supplies.

10.

There is no American public benefit in the loss of thousands of manufacturing jobs in America and also local jobs in timber, ranching, farming, fishing and recreation.

PLEASE DO THE RIGHT THING. For Oregon, for our people, and for the world.

20141209-5004 FERC PDF (Unofficial) 12/8/2014 7:06:25 PM

IND42

Darby Morgan, Cottage Grove, OR.

I writing to inform that Oregon is not the next land to be trampled on by the out-of-control fossil fuels industry. The mega-corporations involved in these proposals/projects have demonstrated their disregard for our lands repeatedly going back at least to the Exxon Valdez disaster (which full restitution still remains outstanding today!). The documentation I have read concerning this proposal leads me to believe it is being "fast-tracked" by co-erced government agencies with little regard for public safety or best land usage, which I suspect is being propelled by corporate control of our elected government officials. I urge you to stand up and do what is right by the people who have entrusted you to do so (not the CEO of some corporation). My specific complaints to the project are that it is one more step in the wrong direction concerning the future of our planet and civilization. Also, all of the locations involved are obviously in the interest of corporate greed, not of the common people and land. The Klamath Falls area is possibly the most active wildlife area of our state, it serving as a refuge to millions of birds and other animals for 6 months of every year. The project also crosses pristine forests and natural environments in the Crater Lake National Park area, one of the few remaining areas of its type anywhere. The Oregon coast is not a good place for massive industrial facilities due to its harsh weather, frequent outages of public utilities and limited safety service agencies (notice that there are none there now; that's why!). More reasons follow:

IND42-1

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND42-2

IND42-3

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND42-4

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND42-5

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay.

IND42-6

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain.

IND42-7

IND42 Darby Morgan, Cottage Grove, OR

- IND42-1 The FERC staff has been studying this Project for about ten years. It is not fast-tracked. Public safety was addressed in section 4.13 of the DEIS. The Commission would determine public benefit in its Project Order. The Klamath Falls area is not the most active wildlife area in the state. As a result of Reclamation's Klamath Project much of the Klamath Basin has been turned into agricultural land, with a loss of native wildlife habitat. The Project is not near Crater Lake National Park.
- IND42-2 An assessment of other reasonable alternatives, including alternative locations for the LNG facility, are discussed in Chapter 3 of the DEIS.
- IND42-3 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND42-4 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND42-5 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND42-6 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.
- IND42-7 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

20141209-5004 FERC PDF (Unofficial) 12/8/2014 7:06:25 PM

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND42-8

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND42-9

IND42 **Continued, page 2 of 2**

IND42-8 This appears to be based on a form letter drafted by Rogue Riverkeeper. See responses to IND1.

IND42-9 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.

20141209-5163 FERC PDF (Unofficial) 12/9/2014 3:48:30 PM

IND43

IND43 John and Polly Wood, Hood River, OR

John and Polly Wood, Hood River, OR.

Our concerns are that there is no rationale save for profit for doing the amount of harm that fracking, LNG transport, and combustion entail. There is no patriotic or economic rationale for enabling our economic enemies in Asia to build the world's largest burn-pile upwind of our nation. We should not be made to subsidize and bear the environmental, health, and economic consequences of a corporate resource grab. Here are some specifics you may not be aware of:

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-1-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND43-1

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND43-2

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND43-3

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 90-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND43-4

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND43-5

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND43-6

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles

IND43-7

- IND43-1 This appears to be based on a form letter. See responses to IND1.
- IND43-2 This appears to be based on a form letter. See responses to IND1.
- IND43-3 This appears to be based on a form letter. See responses to IND1.
- IND43-4 This appears to be based on a form letter. See responses to IND1.
- IND43-5 This appears to be based on a form letter. See responses to IND1.
- IND43-6 This appears to be based on a form letter. See responses to IND1.
- IND43-7 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.

20141209-5163 FERC PDF (Unofficial) 12/9/2014 3:48:30 PM

in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND43-7
Cont'd

FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.
- See more at: <http://www.cascwild.org/ing-comments/#sthash.xpb6fVv5.dpuf>

IND43-8

IND43 **Continued, page 2 of 2**

IND43-8 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

20141210-5003 FERC PDF (Unofficial) 12/9/2014 6:58:41 PM

IND44

Michael Litt, Portland, OR.
Docket no. CP13-483-000
Docket no. CP13-492-000

The Pacific Connector Pipeline is proposed to be built by a private company with the goal of facilitating natural gas exports, thereby making profits for that company. To build the pipeline will require use of eminent domain to condemn many parcels of private property. Eminent domain should only be used by governments to facilitate public benefits, not private profits.

IND44-1

Both the Federal government and Oregon's government have declared that climate change caused by accumulating levels of CO2 and other greenhouse gases (especially methane) presents a danger to our economy and our very civilization. To limit the increase in the earth's average temperature to 2 degrees C, generally agreed to be tolerable though unpleasant, 80% of the proved reserves of fossil fuels must stay in the ground.

The proposed Jordan Cove LNG export facility would exacerbate climate change in several ways:

- 1.) The burning of natural gas required to power the liquefaction facility would release large quantities of CO2 and would create one of the largest sources of CO2 emissions in Oregon.
- 2.) The Jordan cove project would encourage the production of natural gas, with its accompanying leaks of methane, a greenhouse gas that is 80 times more powerful than CO2.
- 3.) Technology exists to produce energy with renewable sources, such as solar, wind and geothermal, that do not produce greenhouse gases. Private companies should be investing in these types of technology rather than continuing to invest in dangerous fossil fuel technologies.

In addition to the global effects of climate change, the Jordan Cove project poses a potentially catastrophic risk to the local area. In case of a severe earthquake, which we know is liable to occur off the Oregon coast at any time, the facility could undergo a massive explosion and fire, endangering nearby residents and businesses, as well as flights to or from a nearby regional airport.

Michael Litt
13100 SE River Rd
Portland
OR 97222-8031

IND44 Michael Litt, Portland, OR

IND44-1 The U.S. Congress decided to convey the power of eminent domain to private companies that receive a Certificate from the FERC when it passed section 7(h) of the NGA in 1947. The Commission would make its decision on public benefit in its Project Order. Climate change was addressed in section 4.14.3.12 of the DEIS. GHG emissions resulting from the Project were discussed in section 4.12.1.4 of the DEIS. The Project would not encourage additional production of natural gas. See response to comment CO1-1. See response to IND1-2. We examined the potential to use renewal energy sources as an alternative to the Project in sections 3.1.4 and 3.3.2.4.

20141210-5114 FERC PDF (Unofficial) 12/10/2014 2:18:33 PM

IND45

IND45 Karl Poehleman, Eugene, OR

Karl Poehleman, Eugene, OR.
This is such a bad idea for Oregon. Destruction of vast swaths of habitat and risks of fire, spills, etc. and for what? To line the pockets of a Chinese company and it's crony supporters in the US. This idiocy needs to be buried. | IND45-1

IND45-1 Impacts on habitat are addressed in section 4.5 of the DEIS. Potential for wildfires are discussed in section 4.5.1.2.

20141211-5000 FERC PDF (Unofficial) 12/10/2014 5:27:50 PM

IND46

IND46 Conley Phillips, Cottage Grove, OR

IND46-1 Comment noted.

Conley Phillips, Cottage Grove, OR.
NO! NO! NO!

If the Canadians don't want this pipeline/terminal in Canada, we sure
don't want it in Oregon. Let Veresen figure out how to ship it to China
via AirMail. | IND46-1

20150211-5164 FERC PDF (Unofficial) 2/11/2015 12:41:20 PM

IND47

IND47 Shelly Fort, Eugene, OR

IND47-1 Comment noted.

Shelly Fort, Eugene, OR.
RE: CP13-483 and CP13-492
Dear Sir/Madame,

I am writing to share my comments with you regarding the Jordan Cove Energy Project. I am vehemently opposed to this project as I see absolutely no benefit to our state, our people, and our natural world. The LNG Pipeline would create a clearcut through 80 percent of imperiled wildlife habitat. It would harm the animals, plants and trees, as well as the water and fish. It would take landowners land to do with what it wants, not what the people want for their land. Most of the landowners do not want this pipeline coming through their property. I was a witness at the hearing at Roseburg and did not hear any landowners in favor of the pipeline.

IND47-1

Building the pipeline and the terminal is not worth any number jobs this project would create because of all the harm it will do. The terminal would be located in an earthquake/tsunami zone. The methane is 86 times more potent greenhouse gas than burning coal. We don't need to continue or expand fracking. We need to stop fracking, stop building pipelines, and take care of our land. We need to begin thinking and planning wisely for the future of all people.
Thank you for considering my comments.

Shelly Fort

20141211-5002 FERC PDF (Unofficial) 12/10/2014 6:36:38 PM

IND48

IND48 Connie Stopher, Coos Bay, OR

IND48-1 Comment noted.

Connie Stopher, Coos Bay, OR.
Hello,

I would like to issue comments regarding the Jordan Cove Energy Project DEIS. After reviewing the DEIS and attending the public hearing in Coos Bay, I have to say that I am thoroughly impressed both by Jordan Cove and FERC. This process has shown that both FERC and Jordan Cove are committed to the process and to ensuring that this is a safe and beneficial project for the entire community. | IND48-1

As the executive director of the South Coast Development Council, a non-profit economic development agency who is tasked with job creation in my region, I realize the magnitude of this project. While job growth is crucial, it is also important that projects such as these are approached in a responsible and sustainable way. This is crucial to protect the amazing resources that we have for future growth and prosperity. It is with this knowledge that I feel confident in the DEIS, Jordan Cove, and FERC's approach to this project. I have no doubt that this project will be handled in the same responsible and community oriented way that Jordan Cove has approached everything thus far.

Thank you for the time and effort that has been spent on this very important project for southwestern Oregon.

Sincerely,

Connie Stopher

20141211-5010 FERC PDF (Unofficial) 12/11/2014 12:37:10 AM

IND49

IND49 Dan Burke, Elkton, OR

IND49-1 Comment noted.

Dan Burke, Elkton, OR.
Federal Energy Regulatory Commission, I strongly urge you to proceed with the Jordan Cove Energy Project. I was born and raised in the Elkton area which is around 60 miles inland from Coos Bay/North Bend. Our communities our struggling to survive due to the environmental impact from the spotted owl and the disappearing safety net. This would be a major boost to the economies both short and long term. I believe the concerns raised that are environmental are not based on facts. I serve on a local city council, school board and am actively involved in coaching kids in basketball. This would help bring young families back into these depressed communities and bring some life back to the Oregon Coast.

IND49-1

Sincerely,

Dan Burke

20141211-5011 FERC PDF (Unofficial) 12/11/2014 1:00:01 AM

IND50

IND50 Kaseja Wilder, Eugene, OR

kaseja wilder, Eugene, OR.

The proposed route for this ill-advised pipeline runs right through Land that is in steward with The Oregon Women's Land Trust. I consider this my spiritual home and hope that you will consider the following arguments against this project.

The Jordan Cove LNG Terminal and Pipeline analysis failed to consider the true dangers of this project to increase climate change problems. The Intergovernmental Panel on Climate Change (IPCC, 11-14 report) determined that by 2050 we must have reduced our reliance on fossil fuels by over 80%. The Jordan Cove terminal will have decades of life left by 2050. FERC failed to consider if this massive fossil fuel project would fit into that reduction. If not, this LNG project could tip us over into unlivable climate change.

IND50-1

Natural gas is methane. A percentage of methane leaks unburned into the atmosphere when drilling and processing for LNG. This methane is 86 times more potent greenhouse gas than burning coal. FERC failed to consider these climate impacts of LNG.

IND50-2

The company's stated Purpose and Need for this project (in "Resource Report One") is to be able to continue fracking and to expand fracking. Since the Jordan Cove LNG export project will facilitate increased fracking, FERC should have considered the cumulative impacts of fracking on our environment.

IND50-3

FERC failed to consider the impacts of the LNG terminal being built in the earthquake subduction zone and tsunami area of Coos Bay. For instance, FERC failed to describe what could happen to the two 80-million-gallon tanks of liquefied natural gas if the power plant stopped working and the back-up power also failed, as did in Fukushima Japan. The LNG would immediately start to warm and expand. What then?

IND50-4

FERC failed to consider the impacts of the 230-mile long pipeline needed to feed the Coos Bay LNG Terminal. For instance, FERC failed to consider impacts to over 300 Oregon landowners who are facing eminent domain. FERC erroneously claims there is such a big "public interest" from this project, FERC will give the right to a foreign company to condemn Oregon land for their pipeline.

IND50-5

FERC failed to consider an alternative that requires the pipeline through southern Oregon to be built to the same safety standards for the entire 230-miles. Instead, FERC is allowing lower safety standards for rural Oregonians. This is because, if the pipeline blows up, fewer people die in rural areas. FERC should not have considered people lives an acceptable trade for saving corporate profits.

IND50-6

This project will clearcut a 100' wide swath through wildlife habitat along 75 miles of public forests in southern Oregon, including 42 miles in old-growth forests. FERC failed to fully consider the impacts to our endangered wildlife that depend on these forests, like the spotted owl, marbled murrelet, and coho salmon.

IND50-7

- IND50-1 This appears to be based on a form letter. See responses to IND1.
- IND50-2 This appears to be based on a form letter. See responses to IND1.
- IND50-3 This appears to be based on a form letter. See responses to IND1.
- IND50-4 This appears to be based on a form letter. See responses to IND1.
- IND50-5 This appears to be based on a form letter. See responses to IND1.
- IND50-6 This appears to be based on a form letter. See responses to IND1.
- IND50-7 Impacts on old-growth forest are addressed in section 4.5.1.2. Impacts on federally-listed threatened and endangered species are discussed in section 4.7.

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FERC should extend the comment period by at least 30 days to give everyone time to weigh in, and to be able to read the 5,000 page DEIS. This project is too big to give so little time for public input.

IND50-8

- See more at: <http://www.cascwild.org/ing-comments/#sthash.Dtg38g1D.dpuf>

Please help stop this pipeline from going through.
Sincerely,
Kaseja Wilder

IND50-9

IND50 **Continued, page 2 of 2**

IND50-8 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

IND50-9 The NEPA process required the production of an Environmental Impact Statement (EIS) for projects that 1) trigger a federal nexus, and 2) could have significant impacts to the environment. FERC is complying with the requirements of NEPA through the production of this EIS.

IND51

Comments to the Federal Energy Regulatory Commission (FERC) regarding its Draft Environmental Impact Statement, dated November 2014, for the LNG terminal in Coos Bay, Oregon, proposed (FERC Docket No. CP13-483-000) by the Jordan Cove Energy Project, L.P. (JCEP), and the associated gas pipeline from proposed (Docket No. CP13-492-000) by Pacific Connector Gas Pipeline, L.P. (PCGP)

From Charles B. Miller, Ph.D., Prof. of Oceanography Emeritus, Oregon State University email: charlie@arctellus.com

This remarkable document of 5048 pages, including appendices, fails despite its unapproachable length to mention key environmental impacts of "the project:"

- (1) In order for the pipeline and terminal to export liquid natural gas (LNG), natural gas must be available to them. The sources for wholesale natural gas in the western United States are imports from Canada and wells created by hydraulic fracturing that are spaced across the upper prairie in Colorado, across Utah and Southern California. The geologic and environmental damage from fracking needs to be addressed for the impacts of the JCEP/PCGP to be honestly represented in the final DEIS.
- (2) While greenhouse gas (GHG) emissions are discussed and small contributions from the project are admitted. The CO₂ pollution from the ultimate burning of 15.6 million metric tons (Mt) of natural gas after export to Asia from the Project and from the similar one at Warrenton in the Columbia River estuary are not mentioned. Careful but simple calculation shows that this will amount to a 0.35% increase over the roughly 9 billion tons (Gt) of carbon burned annually around the globe. This seems like a small number, but relative to the likely global increase, it is large. *Most important, it moves fossil fuel consumption in the wrong direction.* That should be explicitly admitted by FERC (and thus by JCEP/PCGP) in the final DEIS. As shown by the belittling mention in the DEIS, FERC is aware of the role of anthropogenic CO₂ in causing global climate warming.
- (3) I note that the Environmental Protection Agency has admonished FERC to include GHG pollution from the ultimate burning of exported LNG in its impact statements for LNG plants (EPA comments to FERC, Dockets CP12-507 and CP12-508). U.S. President Obama has signed an MOA with the Republic of China to reduce U.S. carbon emissions substantially by 2025. According to *The Washington Post* (Nov. 12, 2014), "To meet its target, the United States will need to double the pace of carbon pollution reduction from 1.2 percent per year on average from 2005 to 2020 to 2.3 to 2.8 percent per year between 2020 and 2025." We cannot achieve anything close to that if we construct more fossil fuel infrastructure like JCEP. The final DEIS must admit to the full GHG consequences of the Project. The project should be rejected by FERC for this reason alone.
- (4) The near certainty (e.g., Goldfinger et al. 2014) that a very great earthquake and tsunami sequence will be generated by the Cascadia Subduction Zone (CSZ) close inshore implies impacts from the Project on the cities of North Bend and Coos Bay, on the environments in and surrounding Coos Bay, that are inappropriately minimized in the DEIS. This comment is extended below.

IND51-1

IND51-2

IND51-3

IND51-4

IND51 Charles B. Miller, PhD, Oregon State University

IND51-1 Fracking, or hydraulic fracturing, is used during exploration and production of natural gas. As stated in our response to IND1-2, the FERC does not regulate the exploration or production of natural gas. In fact, fracking is not part of the Project; and therefore, the environmental impacts associated with that activity will not be analyzed in our environmental document. See response to IND1-3.

IND51-2 See the response to IND1-1.

IND51-3 "Life-cycle" emissions from upstream and downstream sources not regulated by the FERC are beyond the scope of this Project-specific analysis, because the sources of natural gas upstream and the customers for the LNG downstream are unknown, as explained in section 1.4.4 of the DEIS. See response to IND1-1.

IND51-4 As acknowledged in section 4.2.1.1 of the DEIS, the Jordan Cove LNG terminal is located in the vicinity of the Cascadia Subduction Zone. Jordan Cove would design and construct its facilities in a manner that takes geological conditions, such as an earthquake, into consideration. See response to IND1-4.

Earthquakes and Tsunami

Project engineers and geoengineering consultants evaluating the likely CSZ earthquakes that will impact the Project have selected categories suggested by the Oregon Department of Geology and Mineral Industries (DOGMI). They have gone back and forth between the M1 (medium) and L1 (large) categories of subduction “slip” as appropriate to the plant design and the impacts of the tsunami that would follow. Earthquakes expected from both the applied categories have “Moment magnitudes,” similar to Richter scale numbers, of 8.9 or 9.0. Such quakes are intensely violent. Zhang (2012) and Coastal & Harbor Engineering (CHE 2013, cited in 2014) have run tsunami models of the Coos Bay by Zhang (2012) using the L1 category. Zhang also modeled the XL1 and XXL1 categories (yes, these are T-shirt sizes). CHE shifted the risk downward by using a tidal stand of “mean high water (MHW)” as the initial arrival time, whereas Zhang used mean higher high water (MHHW). On the other hand, CHE added a “safety factor” of 1.3-fold to predicted run-up heights, so the results cannot be very different (the Zhang results are widely available, the CHE results I can only find characterized in words at CHE 2014).

The Zhang model results are not explicitly shown in the DEIS. They are shown in attached Figure 1. The projected run-up amounts to about 10 m or +30 feet, which, apart from a +60 ft wall around the LNG storage tanks, is the tsunami from which the design engineers hope to protect the terminal and power plant. While this is a solid analysis so far as it goes, it does not go nearly far enough. Problems:

- (1) The model’s incoming wave rises from a high tidal stand, and then returns to it. Initial waves of real tsunami inside embayments like Coos Bay do arrive without much initial outflow (unlike on adjacent beaches), but they are followed by arrival of the tsunami wave trough, which can drop water level as far below the tidal stand as the initial wave was above it (Figure 2). Since the proposed LNG-carrier mooring basin will be only a few feet below carrier draft, a carrier will almost certainly be grounded, potentially damaging its hull, propellers and rudder.
- (2) The incoming wave apparently moves off upstream to infinity and is gone. That could be a necessary simplification to make the modeling possible. However, real tsunami encounter narrowing and shoaling that tip the elevated water back downstream. This rushing backflow carries debris from the prior earthquake: boats, cars, buildings, trees. It is those unforgivingly solid objects that cause much of the later destruction.
- (3) Real tsunami sequences are not just one wave (Figure 1). That is admitted in the DEIS, to the extent that likely intervals to second and third waves, characterized as decreasingly great, are given (pages 4-244 & 245), though not shown in the Zhang model. After both the 1964 Alaskan and 2011 Tohoku, Japan, subduction earthquakes, the series of waves actually continued from 10 to 20 hours, wave after wave, often with the greatest amplitudes many hours into the sequence.
- (4) The DEIS should describe that horror sufficiently that appropriate fear is aroused in the Project’s investors and citizens living in its vicinity. The event will begin with an earthquake likely to reach $M_w = 8.3$ to 9.0. Yes, there can be lesser earthquakes in the region, but the DEIS should examine the worst-case scenario.

IND51-5

IND51-5

The commenter is correct that the Zhang analysis used mean high high water (MHHW) as the initial condition for the tsunami inundation analysis while the CHE analysis used mean high water (MHW) analysis for the tsunami inundation analysis. The reason this was done was that newly developed tsunami design requirements developed by the American Society of Civil Engineers (ASCE) that were developed after 2011 Tohoku Earthquake in Japan used MHW as the basis for determining tsunami inundation elevations and MHHW (The elevation difference between MHHW and MHW is 0.66 feet at the Jordan Cove site). The commenter is also correct that the CHE analysis applied a 1.3 factor to the project run-up elevation while the Zhang analysis did not. This is because the Zhang study was performed prior to the ASCE requirements being developed while the CHE analyses were developed considering the ASCE requirements. With regards to the commenter problem issues, we have the following response.

1. Jordan Cove proposes to construct the berth to -45 feet (plus 2 feet for over dredging) which would accommodate the predicted withdrawal and tsunami wave trough.
2. We agree with commenter that debris impact is a real issue in the event of a tsunami. In the case of the Jordan Cove terminal, the elevations are such that debris would be stopped by the ground berm before reaching process equipment and the LNG storage tanks. In addition, the mooring basin would generally protect any LNG vessel from impact from debris.
3. As indicated in the DEIS, tsunamis are a series of events and one event could last 10 or 20 hours with several significant waves. But for design purposes, it is the highest runup elevation that is important. That is what the CHE analysis has used to predict tsunami impact on the Jordan Cove terminal site. It should also be noted that the CHE analysis results are similar to those mapped values in the soon to be published ASCE tsunami maps being developed by NOAA.
4. The CSZ seismic hazard has been considered in developing the inundation elevations (see section 4.2.1.4 of the EIS), where it is indicated that both 8.3 and 9.0 magnitude earthquake are considered in developing the seismic hazard ground motions. The design tsunami inundation levels are based on the same seismic hazard ground motion levels.

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IND51 Continued, page 3 of 9

Here in respect to point (4) just above is my preview. The shaking will move houses and other buildings off their foundations, generating rubble trapping many people. Shaking at accelerations up to 70% of gravity will throw people down, tip shelving onto them, collapse roofs and walls, open impassable faults in streets, break natural gas lines (possibly including the PCGP) start fires, break water mains to fire hydrants, and the list goes on. All first responders and every other capable person will be fully occupied dealing with the immediate crisis. Then comes the tsunami. Anybody who has not, likely because they now cannot, departed for high ground can be swept away or drowned while trapped against some barrier.

The potential impacts of a megaquake on industrial facilities dealing with dangerous materials are clear from Gretel Ehrlich's description of what happened at the Fukushima nuclear plant in 2011:

"Not all waves are made of water. The workers described the earthquake as coming in two intense waves, and by the time the second one started, the pipes inside the Daiichi nuclear power plant that regulate the heat of the reactor and carry coolant to it were bursting open.... Oxygen tanks exploded, and the wall of the turbine building in reactor 1 cracked. A tangle of overhead pipes buckled. Others jerked away from the walls. Minutes later, but before the tsunami wave hit, the walls of reactor 1 began to collapse. A radiation alarm sounded and white smoke was seen coming from the top of the reactor."

Immediately after a quake, the 24/7 emergency response teams at JCEP will be dealing with a wide array of impacts, once they manage to pick themselves up off the floors of their station. They will know that a tsunami will arrive in about 20 minutes, but before it does there will be so many things to deal with under impossible conditions of electric power outage, darkness, simultaneous rain and wind, injured plant workers, ... that they will be lucky to get the LNG-transfer arms detached from a moored LNG carrier.

Actually, the tsunami will lift an LNG carrier moored in new the JCEP basin, since the ship's buoyancy will pull out the bollards to which it is attached or it will break the cables. LNG carriers will either run aground or drift in the enhanced flow. The notion that tugboats are going to maneuver themselves and a carrier in the comings and goings of tsunami flow is a fantasy.

In the midst of all this, something on the ship or in the terminal is extremely likely to break and release LNG, all the excellent anti-acceleration, earthquake engineering notwithstanding. With the tsunami sequence, the causeway from Highway 101 to the plant will likely be gone or at least repeatedly covered with deep, moving water. The damaged terminal will be isolated, likely for days. All that follows will just have to be accepted as the will of Veresen investors and of the staff at FERC who approved construction of their terminal.

Keep in mind that in March 2014 a very small explosion at a Plymouth, WA, LNG storage facility shot a small chunk of shrapnel through its tank, forcing an area-wide

IND51-6 As stated in section 4.2.1.3, subsection, Tsunami Hazards, The Emergency Planning and Response Team has reviewed and approved the LNG vessel procedures for dealing with tsunamis. This team includes, among others, the Coast Guard, ODE, Oregon Marine Board, and Jordan Cove Experts.

IND51-6

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evacuation. The risk from a megaquake affecting the JCEP terminal is the same in kind but huge in comparison. Leaking LNG will evaporate into a suffocating methane cloud. The DEIS claims that no LNG terminal fires occurred during the Tohoku quake and tsunami. However, that quake reduced the Sendai Minato natural gas facility to useless rubble, and far from the epicenter in Chiba on Tokyo Bay the quake did crack tanks at an LPG and LNG storage facility that ignited and burned (Figure 4) for eleven days resulting in six deaths. LNG storage in megaquake territory is profoundly unwise. At JCEP there will be no outside personnel available to fight an LNG fire.

IND51-7

The likely impacts of LNG leaks are listed in *JCEP Resource Report 11 – Reliability and Public Safety* of May 2013. The main ones are from freezing induced by evaporating LNG and suffocation. Fire is an obvious possibility, though somewhat specific ignition conditions are required, somehow allowing the authors to brush it aside in the DEIS. Look again at Figure 4; this is inadequate. Not much from *Report 11* is in the DEIS. Add it and apply it to the not improbable megaquake and tsunami. Such damage to the plant will be an environmental impact of the first magnitude, particularly to plant staff and the public. The improved text will strongly imply FERC's responsibility to deny a Certificate of Public Convenience and Necessity.

IND51-8

There is neither public convenience nor public necessity for an LNG export terminal at Coos Bay, Oregon. The environmental, social and eventual economic impacts are unacceptable.

IND51-9

IND51 Continued, page 4 of 9

IND51-7 An oil refinery in Chiba burned following the quake. LNG was not involved in the fire, liquefied petroleum gas (LPG) was. The quake caused the fracture of many cross-braces on the support legs of LPG Tank No. 364 (Fig. 2 and 3), which at the time was not full of LPG, but water used to purge air from the tank for a regulatory overhaul inspection. According to an August 2, 2011 report issued by the Cosmo Oil Co., Ltd., six people were injured, one seriously. The initial quake, combined with the added weight, caused the support cross-braces to fracture, and the subsequent quake caused the support legs to buckle and the tank to collapse. The tank was not designed to hold the added weight of the water in an earthquake. According to a statement by an official at the city's gas bureau, the Sendai LNG tanks were not damaged, but compressors, meters and other electric control systems went down after the quake, making it difficult to restart the facility within a month.

IND51-8 Section 4.13.2.1 discusses the loss of containment of LNG and mixed refrigerant liquid at cryogenic temperature. The liquid release would be contained within the facility spill containment system, including conveying trenches and impoundment sumps. High concentrations of vapors that could cause asphyxiation would only be in proximity of the spill containment systems. Therefore, the hazards associated with cryogenic temperatures and asphyxiation from these liquid spills and other releases would not affect the public. Section 4.13.5.5 discusses impacts from potential fires at the facility. Section 4.13.5 - LNG Facility Siting Analysis includes information from Resource Report 11 and subsequent data requests pertaining to the hazard analyses for the proposed project.

IND51-9 The Commission would make its finding of public benefit in its decision-document Project Order. The EIS is not a decision-document.

FIGURES

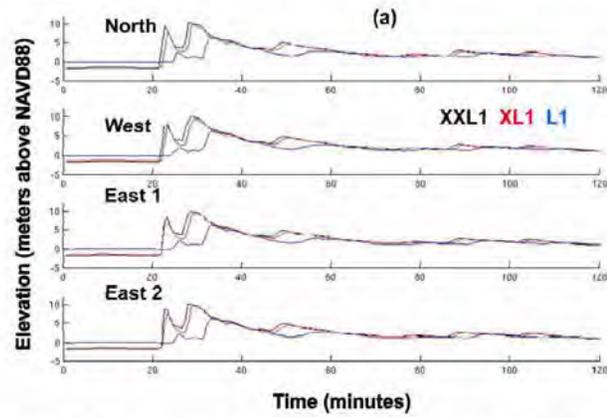


Figure 1. From Zhang (2012). NAVD88 is basically the level of Mean Higher High Water. The scale in meters translates as 10 m ~ 33 feet. North, West, etc are model estimates for water heights at three sides of the JCEP ship-loading basin.

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IND51 Continued, page 6 of 9

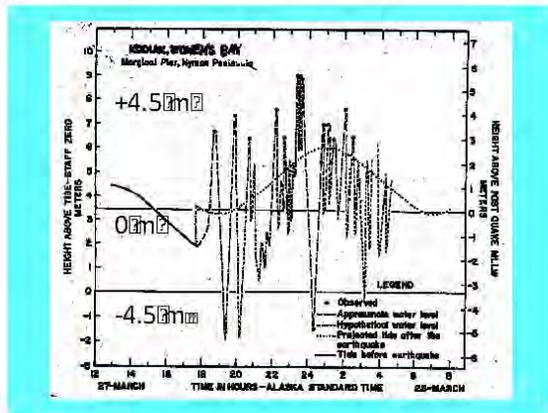


Figure 2. Water level from the tide gauge at the Coast Guard dock near the town of Kodiak on Kodiak Island, Alaska, on 27-28 March 1964. The initial event was land subsidence of 3.5 m, followed by arrival of a first tsunami wave 4.5 m above the new mean lower-low water level. A deep trough followed closely, dropping sea level by more than 8 meters. Great sloshing of second, third and later tsunami waves continued for over 10 hours. The greatest water level shift was 5 hours after the initial wave. From an internet source.

Figure 3A (next page). Tide gauge data ("marigrams," at left) from stations along the Tohoku Coast of Japan (map at the right) during the tsunami sequence after the 2011 Tohoku earthquake of $M_w=9.0$. The initial waves arriving between Miyako and Soma were all at least 9 m above predicted tide level, so large that they (or smashing debris) disabled the tide gauges. Gauges at Erimo, Hokkaido, Onahama and Oarai, with lesser initial tsunami, continued to operate. The earthquake was at 14:46 hours. The initial tsunami arrived at Ofunato, Fukushima prefecture, at 15:18, 32 minutes later. Surveys after things settled down showed damage to heights of 23 m (75 feet). Some run-ups along the Tohoku coast reached 40 m above sea level.

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IND51 Continued, page 7 of 9

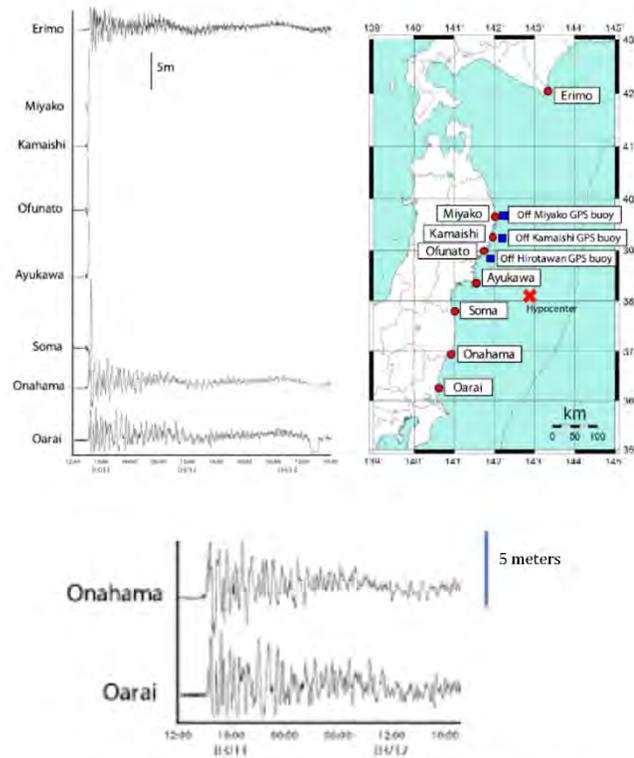


Figure 3B. Onahama and Oarai manigrams of Figure 3A enlarged. Tsunami come as wave sequences lasting hours, at Oarai 10 hours at full initial amplitude and ~20 hours before the sequence ended. Wave sequences where gauges were destroyed were also reported to have been similarly prolonged. Figs. 3A and 3B are from Ozaki (2011).

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Figure 4. Fire at an LNG/LPG storage and regasification facility in Chiba on Tokyo Bay ignited during accelerations from the March 2011 Tohoku earthquake far to the northeast. Extinguishing the fire took eleven days. Six deaths were caused by the fire. Minimal acknowledgement in the FERC DEIS for JCEP of the fire risk at LNG compression and storage facilities is misleading. These are very dangerous industrial sites.

IND51-10

IND1 Continued, page 8 of 9

IND51-10 An oil refinery in Chiba burned following the quake. LNG was not involved in the fire, liquefied petroleum gas (LPG) was. The quake caused the fracture of many cross-braces on the support legs of LPG Tank No. 364 (Fig. 2 and 3), which at the time was not full of LPG, but water used to purge air from the tank for a regulatory overhaul inspection. According to an August 2, 2011 report issued by the Cosmo Oil Co., Ltd., six people were injured, one seriously. The initial quake, combined with the added weight, caused the support cross-braces to fracture, and the subsequent quake caused the support legs to buckle and the tank to collapse. The tank was not designed to hold the added weight of the water in an earthquake. According to a statement by an official at the city's gas bureau, the Sendai LNG tanks were not damaged, but compressors, meters and other electric control systems went down after the quake, making it difficult to restart the facility within a month.

20141211-5016 PERC PDF (Unofficial) 12/16/2014 6:17:45 PM

IND51 Continued, page 9 of 9

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- Coast & Harbor Engineering (March 14, 2014) Revised Supplement to Technical Memorandum – Tsunami Hydrodynamic Modeling Jordan Cove Energy Project, L.P., Docket No. CP13-483-000.
- Ehrlich, Gretel (2013) *Facing the Wave, A Journey in the Wake of the Tsunami*. Pantheon Books, New York. 214 pages. (Ehrlich's book is a testament to the levels of horror that a major earthquake and tsunami can inflict. For those with the courage to face up to the potential for a similar disaster in the western U.S., it is essential reading.)
- Goldfinger, Christopher and 12 coauthors (2014) Turbidite Event History—Methods and Implications for Holocene Paleoseismicity of the Cascadia Subduction Zone. In Robert Kayan, Editor, *Earthquake Hazards of the Pacific Northwest Coastal and Marine Regions*, U.S. Geological Survey Professional Paper 1661-F, 170 pages (only available on the Web: <http://pubs.usgs.gov/pp/pp1661F/>) (Says much of what FERC might want to know about our trenchless subduction zone.)
- Henderson, Bonnie (2014) *The Next Tsunami, Living on a Restless Coast*. Oregon State University Press, Corvallis, Oregon. 322 pages. (A good, lay-level review of subduction zone science and the impact of tsunami our coasts.)
- Oregon Department of Geology and Mining Industries Tsunami Evacuation Brochures (maps and poster pages with evacuation instructions and precautions) are available for most of the Oregon coast at:
<http://www.oregongeology.org/tsuclearinghouse/pubs-evachro.htm>
- Oregon Coastal Zone Management Program (April 2014) *Tsunami Guide*, 69 pages. (This includes advice to coastal communities and residents regarding subduction zone earthquakes and tsunami. Available at <http://www.oregon.gov/LCD/OCMP/docs/Publications/TsunamiGuide20140108.pdf>)
- Oregon Revised Statutes §455.447. Summarizes legislation relevant to citing of large, critical and hazardous facilities and structures in the seismic hazard and tsunami zones of Oregon.
- Ozaki, T. (2011) Outline of the 2011 off the Pacific coast of Tohoku Earthquake (Mw 9.0) - Tsunami warnings/advisories and observations. *Earth Planets Space*, 63 (no.8): 827–830. [Ozaki works at the Japan Meteorological Agency that operates tide gauges all along the Japanese coasts. Japanese tsunami scientists promptly issued detailed reports *in English* regarding the magnitude of the Tohoku events. Writing in English is typically a substantial extra effort for them, which they undertook so that places adjacent to subduction zones like Coos Bay could benefit from the Japanese experience. The DEIS could profitably review this for local readers and note that the likely horror goes on an on.]
- Zhang, Y. Joseph (2012) Final report: Site-Specific Tsunami Modeling at the Jordan Cove LNG Facility, Coos County, Using New Cascadia Sources. Available at: [http://www.jordancoveenergy.com/FFRC/Vol_1-F/RR6/Appendices/Appendix_C.6_4277-M_SITE-SPECIFIC_TSUNAMI_MODELING_2012_\(FINAL%2011-29-12\).pdf](http://www.jordancoveenergy.com/FFRC/Vol_1-F/RR6/Appendices/Appendix_C.6_4277-M_SITE-SPECIFIC_TSUNAMI_MODELING_2012_(FINAL%2011-29-12).pdf)

IND52 Tom Bender, Nehalem, OR

20141215-5046 EBSB EDP (DRAFT) 12/11/2014

IND52

Statement in opposition to approval of the Jordan Cove LNG Terminal proposal

Tom Bender
38755 Reed Rd.
Nehalem, OR 97131
503-368-6294

References are listed in:

LNG: Neither Safe Nor Wise
www.tombender.org/societynorlivingfor/articles/lng.pdf
Oregon Coast Impacts of Global Warming
www.tombender.org/societynorlivingfor/articles/GLOBAL%20WARMING.htm

20141211-5046 FBRC PDF (Unofficial) 12/11/2014

The Jordan Cove LNG Terminal Proposal violates Oregon Land Use Goal 2: Land Use Planning

- It fails to evaluate alternative courses of action and ultimate policy choices.
- Energy efficiency and renewable resources provide a safer, cheaper, more environmentally friendly, and anti-global-warming source of energy.
- Those alternative courses of action would have more favorable impacts on the community and its economy.
- The proposal did not evaluate such courses of action and related ultimate policy choices.

IND52-1

IND52 Continued, page 2 of 23

- IND52-1 Energy efficiency improvements and renewable resource development are beyond the scope of this project. FERC does not regulate these resources.

30042014-042 PERC_PDR (100)(1)(v1) (07/17/2014)

The alternative option of focusing on renewable energy and energy efficiency rather than LNG for meeting any global energy need is the only safe and affordable option.

IND52-2
Two-thirds of NW electricity comes from renewable sources, and half of the NW energy “supply” over the last twenty years has come from energy efficiency.

We have proven their value and need to be given full priority.

They are secure, less expensive, and sustainable – which LNG is not. We need to focus on them.

IND52 Continued, page 3 of 23

IND52-2 Renewable energy options are discussed in section 3.1.4 of the EIS. Because the Project’s purpose is to prepare natural gas for export to foreign and domestic markets, the development or use of renewable energy technology would not be a reasonable alternative to the proposed action.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

The Jordan Cove LNG Terminal Proposal
violates Oregon Land Use
Goal 7: Areas Subject to Natural Hazards

IND523

Its site is subject, within its project life,
to submergence, and to impacts of an R-9.5
earthquake, from global warming sea level rise,
subduction earthquakes, and tsunami inundation.

IND52 **Continued, page 4 of 23**

IND52-3 The potential for the proposed site to be subject to natural hazards, including an earthquake, sea level rise, and tsunami, is addressed at length in the EIS.

20141211-5046 PBRC PDF (Unofficial) 12/11/2014

The 2012 DOGAMI Tsunami Inundation map shows the Jordan Cove LNG site is subject to inundation by tsunami, and subject to horizontal earthquake movement FIVE TIMES greater than previously anticipated.



20141211-5046 FEERC EDF (Unofficial) 12/11/2014

Devastating Oregon Coast impacts of global-warming storm intensity and sea level rise are likely to ban the use of fossil fuels such as LNG for generating electricity. CO₂ release from liquifaction of LNG would increase the potential impacts of such “natural hazards.”

IND52-4



IND52 Continued, page 6 of 23

IND52-4 Comment noted.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

The Jordan Cove LNG Terminal Proposal
violates Oregon Land Use
Goal 9: Economic Development

IND52-5

IND52 **Continued, page 7 of 23**

IND52-5 Comment noted.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

“A proposal for variance from comprehensive plans and policies must demonstrate that it contributes to a stable and healthy economy in all regions of the state.”

- A hazardous, lengthy, and disruptable source-path for moving dangerous materials cannot provide a stable economy.
- A foreign-trade based energy source that depletes our energy reserves cannot provide a stable economy.
- No fossil-fuel based economy is stable or sustainable.
- An energy source – such as LNG – that contributes to global warming, threatens the health and stability of our local and state economy.

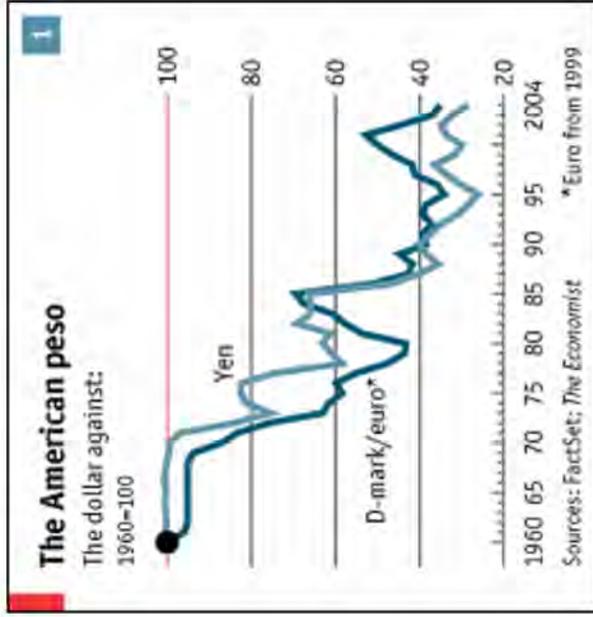
IND52-5
Cont'd

IND52 Continued, page 8 of 23

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LNG exports, tied to a shrinking dollar, can raise local energy prices, destroying our local economy.

IND52-6



IND52 Continued, page 9 of 23

IND52-6 Comment noted.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

The Jordan Cove LNG Terminal Proposal presents unacceptable safety hazards.

- The immense economic cost of shipping delays would pressure shippers to operate under unsafe conditions.
- The terminal, and ships in transit, would create a major potential terrorist target.
- The impacts of a terrorist event with an LNG ship or terminal surpass the capabilities of any public safety system.

IND52-7

IND52 **Continued, page 10 of 23**

IND52-7 Comment noted.

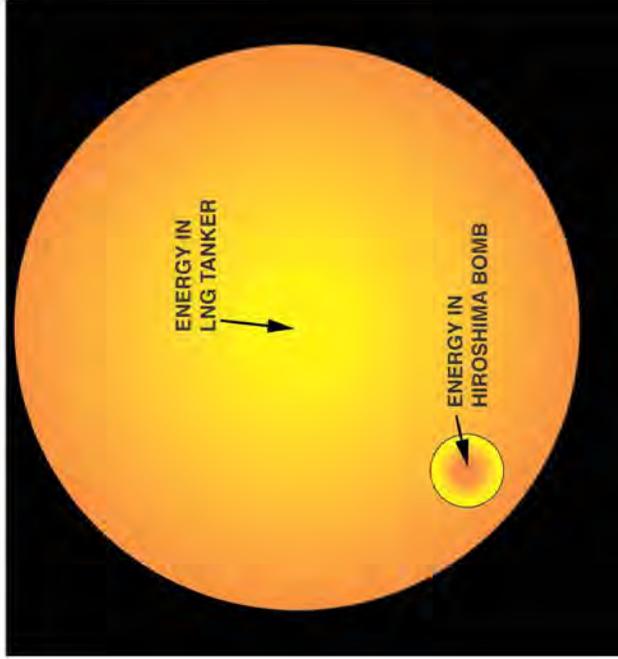


The greatest single
disasters affecting a
city in history were
the atomic bombing
of Hiroshima and
Nagasaki.

20141211-5046 FEBC PDF (Unofficial) 12/11/2014

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The energy contained in 35,000,000 gallons of LNG in a single tanker represents the energy equivalent of 60 to 80 Hiroshima bombs.



20141211-5046 FERC PDF (Unofficial) 12/11/2014

The Sandia report failed to assess the potentials of
airborne terrorist attack on LNG ships.

IND52-8



IND52 Continued, page 13 of 23

IND52-8 Comment noted.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

While tanker hulls are designed for some protection from impact, tanker tops are NOT.



20141211-5046 FERC EDE (Unofficial) 12/11/2014

A ten minute search on the internet can provide anyone with information on fuel-air bombs, where to obtain or how to make them.



A fuel-air bomb is the closest non-nuclear equivalent to an atomic bomb. It disperses its “fuel” contents into the air, combining with its oxygen, then detonating to create a massive shock wave. This can breach an LNG tanker’s LNG tanks, dispersing LNG into the air and detonating it as a “super-fuel-air bomb” similar to how atomic bombs are used to set off a hydrogen bomb.

For details, see “LNG: Neither Safe Nor Wise”, Tom Bender, HIPPFSH, January 2005.

IND52 Continued, page 15 of 23

Explosion of an LNG tanker could incinerate Coos Bay and surrounding communities.

This FEIS image is based on water-top burn of liquid LNG. A shock-wave explosion possible with a fuel-air bomb terrorist incident could be far more devastating.

IND52-9

Jordan Cove LNG Tanker Hazard Zones (FEIS Page 4.7-3)

Zone 1 (yellow) - No one is expected to survive in this zone. Structures will self-ignite just from the heat.
Zone 2 (green) - People will be at risk of receiving 2nd degree burns in 30 seconds on exposed skin in this zone.
Zone 3 (blue) - People are still at risk of burns if they don't seek shelter but exposure time is longer than in Zone 2.
Map does not include the hazard zones for the South Dunes Power Plant and the Pacific Connector Gas Pipeline.

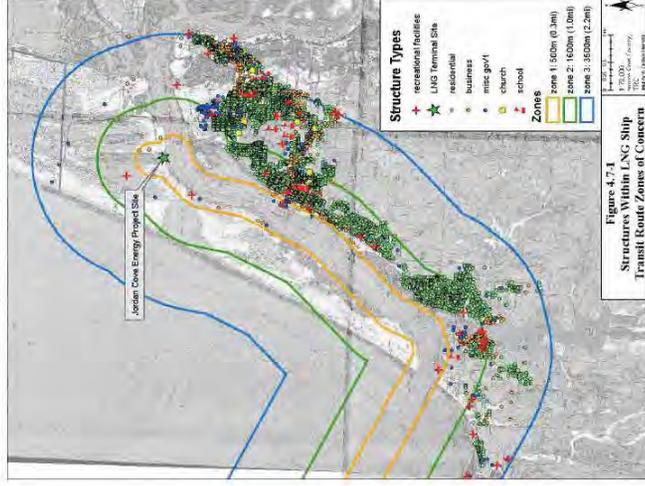


Figure 4.7-1 Structures Within LNG Ship Transit Route Zones of Concern

IND52 Continued, page 16 of 23

IND52-9 Comment noted.

20141211-5046_FERC_PDF (Unofficial) 12/11/2014

The Jordan Cove LNG Terminal Proposal thus
violates Oregon Land Use

Goal 11: Public Facilities and Services

- There is no way that public safety services can be provided to deal with the magnitude and extent of accidental or terrorist-caused explosions of LNG tankers in transit or in terminal.
- Even in routine operation, distance to facilities and services, and lack of their capacity would result in safety being compromised for employees, construction workers, emergency response personnel, and the local county population.

IND52-10

IND52 Continued, page 17 of 23

IND52-10 We have evaluated the ability of existing public facilities and services to support operation of the proposed LNG terminal. Jordan Cove has proposed a number of measures to augment these services, and we have recommended additional measures. See discussion in section 4.13.7 of the EIS.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

The Jordan Cove LNG Terminal Proposal violates Oregon Land Use

Goal 12: Transportation

IND52-11

It fails to “minimize adverse social, economic and environmental impacts and costs”, and reduces our “ability to have a safe, convenient and economic transportation system”;

- The transportation of LNG is hazardous, not safe.
- Bringing natural gas into Coos Bay is not safe. Recent explosions at LNG facilities and gas pipelines underscore this risk.

IND52 Continued, page 18 of 23

IND52-11 The DEIS includes extensive avoidance, minimization, and mitigation measures designed to minimize adverse effects.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

**The Jordan Cove LNG Terminal Proposal
violates Oregon Land Use
Goal 13: Energy Conservation**

“Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.”

“ 2. The allocation of land and uses permitted on the land should seek to minimize the depletion of non-renewable sources of energy.”

IND52 Continued, page 19 of 23

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The extraction, liquifaction, shipping, regassification, pipeline pumping, conversion to electricity, and transmission of the energy as electricity consumes 75-80% of LNG's energy.

Direct use, in the country of origin, is therefore five times as efficient.

Even creating "LNG" violates "maximizing the conservation of all forms of energy", and "minimize the depletion of non-renewable sources of energy."

IND52-12

IND52 Continued, page 20 of 23

IND52-12 Comment noted.

20141211-5046 FERC PDF (Unofficial) 12/11/2014

Development of
Jordan Cove LNG,
or ANY new LNG projects
ANYWHERE IN THE WORLD, would
appear to violate expected
agreements at the Lima Climate
Change Conference.

ANY energy system consuming 75-80% of the energy
involved before use cannot deal with global warming.

IND52-13

IND52 Continued, page 21 of 23

IND52-13 We do not agree that agreements made at the Lima Climate Change Conference ban the development of new LNG projects.

20141E11-5045 P880 30X (1000116) 12/11/2014

LNG IS a non-renewable source of energy.

Using it in any location inherently
causes its depletion, and does not
“minimize the depletion of
non-renewable sources of energy.”

The less-expensive and safer alternatives of energy-efficiency and renewable
energy are required to be addressed and evaluated.

IND52-14

IND52 Continued, page 22 of 23

IND52-14 Comment noted.

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- IND52-15
• Full information has not been made available to the public and the county.
- IND52-16
• The proposal fails to present and evaluate alternatives.
 - The proposed LNG terminal site is unsafe.
- IND52-17
• LNG represents a major threat to the safety and security of the county.
- LNG threatens the economic health of the county.
- LNG threatens the air, water, and natural environment of the county.
- LNG threatens the quality of life in Coos County.

I request that DLCD deny Jordan Cove's Federal Consistency Application under their Coastal Management Program.

IND52 Continued, page 23 of 23

- IND52-15 The purpose of an EIS is to evaluate the environmental impacts of construction and operation of the project, including the effects on the human environment. We believe that the DEIS effectively documents these impacts.
- IND52-16 Alternatives are presented and evaluated in chapter 3 of the DEIS.
- IND52-17 Health and safety concerns are addressed in section 4.13 of the EIS; impacts to the economy are addressed in section 4.9; impacts to air quality area addressed in section 4.12; impacts to water are addressed in 4.4; while impacts to the "natural environment" are addressed in chapter 4 of the EIS.

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IND53

IND53 Barbara Gimlin, North Bend, OR

PUBLIC COMMENT
Provided by Barbara Gimlin, P.O. Box 1527, North Bend, OR 97459

Jordan Cove Energy Project
Intertidal Flats Mitigation Proposed for Kentuck Slough
FERC Docket No. CP13-483-000

INTRODUCTION

This public comment document presents concerns and credibility issues regarding the Compensatory Wetland Mitigation (CWM) plans submitted for the Jordan Cove Energy Project (JCEP) in North Bend, Oregon. Of the CWM versions presented for the overall project, this document focuses on only one portion of each — the estuarine mitigation proposed for the Intertidal Flats Mitigation Site at Kentuck Slough.

It is my assertion that inadequate environmental and hydrologic studies have been conducted to warrant the Kentuck Slough mitigation to proceed as planned. Much more input is needed from hydrologists, engineers, natural resources scientists, and planners to fully understand and design a plan for the site that will address current and future site-specific conditions on the ground, including upstream of the site.

What's at risk? Many things. Before the project starts moving dirt around (or mud and sand), it needs to conduct a full analysis on every aspect of the mitigation proposed at Kentuck and demonstrate it understands the implications to the environment it will be affecting. This issue ranges far beyond the CWM comments presented in this document for the Kentuck Slough. There is a pattern being set for the JCEP, and another major issue is the ongoing neglect by the project to properly address soil contamination issues at the facility site on the North Spit of Coos Bay. As with the soil contamination issues, additional studies are needed to ensure the designs and plans in place prior to ground disturbing activities fully address the potential adverse effects of the project.

There are various CWM plans floating around in the regulatory system for the mitigation proposed for the overall project, and all include various versions of the mitigation proposed for Kentuck. The lack of consistency is an indicator that the project warrants close and interactive scrutiny by the local, state and federal agencies that are authorized to review and approve the project. In addition to the Federal Energy Regulatory Commission (FERC), each authorizing agency needs to ask tough questions, to coordinate with other respective agencies to ensure they are approving the same actions, and to expect complete investigation and analysis before approving any action.

BACKGROUND

The comments included in this document are based on my personal observations living one mile from Kentuck Slough since 2008, along with firsthand knowledge of the JCEP while working on the project as environmental consultant while employed by SHN Consulting Engineers & Geologists, Inc. (SHN) in Coos Bay from March 2013 to April 2014.

IND53-1

The wetland mitigation plan must be approved by the COE. The COE is working with the applicant on their mitigation plans. The suitability of the Kentuck Slough as a mitigation site is part of the COE's analysis. Any approval by the Commission would be conditioned upon obtaining a COE permit, as well as all state permits.

IND53-1

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IND53 Continued, page 2 of 14

The existing bridge over the Kentucky Slough channel is located on East Bay Road and includes four large tidegates that regulate the flow between the Kentucky Slough channel and the Coos Bay estuary. The structure was rebuilt in 2007 and Coos County received \$2,321,000 through Oregon Transportation Investment Act funds in 2003 to construct the project. Now the JCEP wants to remove the bridge and tidegates and open up the estuary along East Bay Road by building a bridge and opening up both the former Kentucky golf course and the historical inlet that at one time extended five miles inland prior to being filled over 60 years ago.



Figure 1. Existing tidegates (4) at the East Bay Road bridge over the Kentucky Slough channel. The tidegates and bridge were rebuilt in 2007 at the cost of over \$2 million. (1-8-15).

In addition to what was filed with FERC in the Draft Environmental Impact Statement (EIS), the most recent JCEP Joint Permit Application (JPA) on record for the Oregon Department of State Lands (DSL) was submitted in March 2014. The most recent version of the JPA submitted to the U.S. Army Corps of Engineers (Corps) was in October 2014. There are at least four CWM plans included and referred to in project documentation for the same CWM planned for Kentucky. They were all prepared by David Evans and Associates, Inc. (DEA) and look very similar. Of note, two different (but similar) CWM plans are included in the full JPA document submitted to the Corps for the current JCEP permit application, and both are dated October 2014. It is unclear which CWM plan is the final product, even from the narrative, but it appears the CWM plan attached first in the document is the one that is moving forward.

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IND53 Continued, page 3 of 14

In addition, two other CWM plans were submitted to the DSL and are associated with their project documentation (December 2011, March 2014).

My concerns about the lack of proper study and analysis for the Kentuck mitigation portion of the project repeatedly fell on deaf ears while I worked on the project under SHN. I sat in on weekly conference calls with DEA, the consulting company hired by the project to (among many things) write the CWP plan. It was like they didn't want to hear anything that would interfere with what they had in place. This was despite the fact that the plan(s) in place did not take into account the issues brought forth in this public comment. I went as far as to send site photos during flooding stages and documentation of ongoing fill being conducted upstream that could affect the site hydrology. To my knowledge, it was ignored. The issues certainly were not included in the resultant CWM plans proposed by DEA, or in any other part of the JPAs prepared by DEA that were submitted to the Corps and DSL.

The CWM plans used in the current JPA for the Corps frequently refers to the DSL Removal-Fill (RF) Permit No. 37712-RF (issued by the DSL in December 2011 and expiring December 21, 2016) as providing approval for the mitigation proposed for estuarine resources at Kentuck for the current project. DSL Permit 37712-RF is based on a JPA submitted to the DSL in 2011 by the International Port of Coos Bay (Port) for the Port's previously proposed Oregon Gateway Marine Terminal project.

The current JCEP DSL permit recorded online at the DSL's website (as of January 8, 2015), Permit 54908-RF, is dated March 20, 2014, and includes a CWM plan dated March 2014. The March 2014 CWM plan has significant changes from the CWM plan approved by the DSL in December 2011, and is different from the two October 2014 CWM plans included in the Corps JPA. There is no documentation provided in any of the JCEP documents to demonstrate the previous CWM plan approved for the Port DSL permit issued in 2011 has been subsequently approved (as revised) for the current DSL permit for the JCEP. The 2011 approval was based on a different applicant and a different overall project. If the Corps and/or DSL have approved the subsequent changes, that process of approval should be documented as part of the administrative record included in the most current JPAs.

There is a lack of consistency in the information presented in the various CWM plans for review in the FERC Draft EIS and the Corps/DSL JPAs. It can be difficult at times to tell what is actually planned for the site. Even the most current CWM plan presented has not been updated and lists the construction of the project and associated mitigation as anticipated to begin in the 3rd and 4th quarters of 2014.

Despite the above inconsistencies, the comments and questions presented in this document are valid for all CWM plans associated with the JCEP.

IND53-2

EXISTING EAST BAY ROAD BRIDGE AND ASSOCIATED TIDEGATES

The narratives for the various CWM plans for Kentuck do not clearly present information on the existing tidegate structure installed under the current East Bay Road bridge that connects Kentuck Slough to Coos Bay. It is a substantial structure with four large tidegates and was rebuilt in 2007.

Prior to the recent replacement, the existing bridge did not meet current design standards and needed to be replaced. Attached to the downstream side of the existing bridge was a set of three 7.5-ft wide by 10-ft high top-hinged tide gates. One of the tide gates was wedged in the gate slot and completely inoperable. The other two gates functioned, but leaked significantly during flood tides. Additionally, the gates were frequently overtopped during high tides.

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IND53 Continued, page 4 of 14

The leaky gates allowed for saltwater intrusion into the slough and also resulted in an increase in the amount of saltwater that intruded into adjacent land via groundwater flow. This negatively affected the quality of the soil during the summer months when there is little freshwater inflow to the slough to help dilute the salt concentrations from the bay water. The local landowners indicated at the time that the current volume of saltwater influx to the slough was tolerable, but any increase would not be acceptable.

WEST Consultants, Inc., was hired to conduct an HEC-RAS unsteady flow hydraulic model of the tidegate designs for the new bridge to accommodate and improve upon conditions that encourage the estuarine habitat, while at the same time would not increase the volume of saltwater influx to the slough over the existing conditions. Kentuck Slough is considered an important salmonid habitat. Therefore, the hydraulic parameters for the replacement tidegates installed in 2007 were developed in close consultation with the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), and the Oregon Department of Fish and Wildlife.

For the complicated mitigation proposed at Kentuck for the JCEP, more complex hydraulic analysis to identify the impacts and support the determination of appropriate mitigation is needed. Removal of the existing bridge and tidegates needs full evaluation of existing hydrology, hydraulics, sediment transport, fluvial geomorphology and water quality, with supporting documentation.

IND53-3

INTERTIDAL FLATS MITIGATION PROPOSED — KENTUCK SLOUGH SITE

The Kentuck Slough site is referred to as "primarily unvegetated mudflat and tide channels, and some salt marsh." The following appears to be the scope of work for the JCEP CWM plan related to the site, from the IPA submitted to the Corps:

Jordan Cove Energy Project Compensatory Wetland Mitigation Plan – Part B

1.2.2 Intertidal Flats Mitigation Site (Kentuck Slough Site)

Mitigation Goal 2: Reestablish tidal flow to approximately 45.01 acres of historical intertidal habitats adjacent to Kentuck Slough. (Actual area as currently designed will be 46.59 acres, which results in additional contingency credits. Mitigation Goal 2 and associated Objectives are based on the minimum acreage needed to meet standard DSL mitigation ratios). To achieve this goal, the following objectives will be carried out:

- **Objective 2.1:** Construct a new bridge in East Bay Drive to allow tidal exchange between Kentuck Inlet and the "back nine" of Kentuck Golf Course.
- **Objective 2.2:** Construct a new cross dike between the front and back nine of Kentuck Golf Course, with a standard tidegate to drain the front nine to the back nine, and construct a fish friendly tidegate array through the Kentuck Slough dike, allowing the majority of flow from Kentuck Slough to enter the back nine.
- **Objective 2.3:** Remove the culvert and tidegate located adjacent to the east side of East Bay Road near the southeast corner of the golf course site.
- **Objective 2.4:** Restore tidal connection to the irrigation pond creek system through installation of a fish passable culvert that meets ODFW fish passage criteria.
- **Objective 2.5:** Construct and/or enhance approximately 6,000 linear feet of tide channels.

- **Objective 2.6:** Establish an approximately 1.73 acre wetland bench along Kentucky Slough by relocating the existing levee southward.
- **Objective 2.7:** Establish an emergent to scrub-shrub, brackish to freshwater transitional plant community along the Kentucky Slough bench described in Objective 2.6.
- **Objective 2.8:** Establish a minimum of 0.18 acres of salt marsh habitat within the internal portion of the Kentucky Slough site, with the remainder of the internal portion (43.10 acres) being mudflat and/or tide channel. A greater amount of salt marsh, with subsequent reduction in mudflat is acceptable.



Figure 2, Sheet 3
Interstitial Flats (Kentucky Slough) Mitigation Site



Figure 2: Study area used by DCA to develop mitigation at the Kentucky Slough site.

Changes to the JCEP CWM Plan in the October 2014 Corps Permit Application

One of the CWM plans for Kentuck Slough submitted in the October 2014 JPA to the Corps states mitigation for the site has been refined based on agency comments since the issuance of DSL Permit 37712-RF in 2011. For this plan, the following are fairly significant changes to the mitigation proposed from what was previously approved in DSL Permit 37712-RF in 2011:

- The October 2014 CWM plan includes the establishment of 12.49 additional acres of tidally influenced habitats at the site and adjacent areas that were not included in 2011.
- Mitigation improvements such as levee relocation, cross-dike placement, roadway upgrades, etc., will now result in 3.11 acres of permanent incidental wetland impacts, of which 0.59 acres was previously included.
- An additional 0.59 acres of incidental emergent wetlands impacts will result from improvements needed at the site, in addition to the 10.47 acres of mudflat impacts presented in 2011.
- Current designs include raising elevations within the site to better support establishment of salt marsh, provided there is suitable material to import to raise grades.
- The current design proposes rebuilding the existing Kentuck Slough levee roughly adjacent to the south side of the existing levee and restoring the area under the old levee back to wetland, creating a wetland bench along the slough channel.

Inconsistencies in Elevation Data

The October 2014 CWM plan states the following:

- *The primary salt marsh surface at the reference site (immediately downstream of East Bay Road) occurs between approximately elevations 5.5 and 8.5 feet NAVD88 (North American Vertical Datum of 1988). However, typical elevations within the former golf course range between 2.0 and 4.0 feet NAVD88. These lower elevations in the former golf course preclude vegetation establishment, and therefore mudflat would be the predominant habitat type without intervention. ... Current design includes raising elevations within the site to better support establishment of salt marsh; however this is reliant on having suitable material to import to raise grades.*

However, in a November 4, 2010, letter to Chuck Wheeler at the National Marine Fisheries Service, DEA states the following:

- *The proposed mitigation would reestablish tidal flow to approximately 33 acres of historic intertidal mudflat/low marsh habitat adjacent to Kentuck Slough. Survey information confirms that elevations within the golf course are appropriate for establishing mudflat habitat. The primary salt marsh surface at the reference site (immediately downstream of East Bay Drive) occurs between elevations 7.0 and 9.0 feet mean low low water (MLLW). However, typical elevations within the golf course range between 4.0 and 6.0 feet MLLW. These lower elevations in the golf course preclude vegetation establishment and therefore mudflat will be the predominant habitat type (DEA 2010).*

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IND53-4 The elevations are in different vertical datums; therefore, heights are not the same.

Why would the elevation at MLLW immediately downstream of East Bay Road (7.0-9.0 feet) be higher than the NAVD88 elevation data at the same site presented by DEA in 2014 (5.5-8.5 feet)? In turn, the MLLW listed for the golf course in 2010 (4.0-6.0 feet) is higher than the NAVD88 elevation data in 2014 (2.0-4.0 feet). No supporting documents from site visits, field studies, and surveys conducted are provided for any of the assertions.

IND53-4

CONCERNS ABOUT THE PROPOSED MITIGATION AT KENTUCK SLOUGH

Potential Site Contaminants

The former golf course at Kentucky operated over four decades before closing in 2009. The CWM plans do not demonstrate that any studies on contaminants have been conducted at the site, particularly for contaminants that may be harmful to marine life. While herbicides, pesticides and herbicides have improved in recent years, who knows what was previously used at the site and the residual contamination risk the previous use as a golf course may pose.

Attachment A for the October 2014 Corps JPA lists the following regarding potential hazardous materials that may be encountered by the overall project:

13. Hazardous, Toxic, and Waste Material Handling: Petroleum products, chemicals, fresh cement, sandblasted material and chipped paint, wood treated with leachable preservatives or other deleterious waste materials shall not be allowed to enter waters of this state. Machinery refueling is to occur at least 150 feet from waters of this state and confined in a designated area to prevent spillage into waters of this state. Barges shall have containment system to effectively prevent petroleum products or other deleterious material from entering waters of this state. Project-related spills into waters of this state or onto land with a potential to enter waters of this state shall be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.

This short section does not begin to address the issue of potential contaminants at the Kentucky mitigation site, which is part of the overall JCEP. In addition to concerns over the prior use as a golf course, other concerns were brought up during a Coos County Commissioners meeting on September 22, 2009. The commissioners approved a zone change for the Kentucky Golf Course to exclusive farm use to allow the Port to use the land. Commissioner Bob Main voted no, in light of concerns he said he had about pollutants washing into Coos Bay. Commissioners Nikki Whitty and Kevin Stufflebean voted yes.

A story carried in *The World* newspaper on September 23, 2009, said developers had devised a plan that would flood the back nine holes of the course to satisfy government wetland replacement requirements for the JCEP, and that they would remove part of the dike west of the course and build a bridge for East Bay Road. It also included the following:

Main said he was concerned that a former methamphetamine lab in a house in the area had contaminated the course and would leach into the bay if the mitigation plans proceeded. Oregon's Department of Health Services has a house on Golf Course Lane listed as unfit for use.

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IND53 Continued, page 8 of 14

Main's fellow commissioners and the Port's lawyer tried to reassure Main, noting that state and federal agencies would check into those issues through a biological assessment and U.S. Army Corps of Engineers review. Main remained opposed.

"I'm not comfortable that they will check that potential problem," he said.

Mark Whitlow, a Portland attorney representing the Port, said it was premature to discuss the runoff issue, because the primary purpose of the meeting was the zone change.

"Until the Port's project goes forward, there is no project proposal for the site," he said.

There is no mention in any of the CMP plans that the potential contamination from the former meth house has been investigated. This is not for lack of knowledge. I brought up the article during the summer of 2013 twice during weekly conference calls with DEA and also provided DEA staff with a copy of the article. And it's clear the JCEP's attorney, Mark Whitlow, was aware of the potential issue. At a minimum, it should be brought up and addressed in all project documents.

IND53-5

IND53-5 On February 3, 2015 Jordan Cove filed with FERC additional information related to potential soil contamination from previous activities at the proposed LNG terminal site (accession No. 20150203-5140). The FEIS has been updated where appropriate to incorporate this information.

Site Hydrology

There is a serious lack of documentation of existing hydrological studies that have been conducted for the proposed Kentucky Slough mitigation, including upstream of the site. The area floods frequently and even when the golf course was open, the locals referred to it as the "yacht club" during the rainy season. Farms and homes to the north of the Kentucky Slough channel, along with to the west (upstream) for approximately four miles, are frequently flooded during heavy rains.



Figure 3. Former Kentucky Golf Course taken from East Bay Road following heavy rain. The channel is on the other side of the levy shown on the left. (12-24-14)

In addition, flood impacts (stage, velocity, duration) need to be addressed regarding current alterations that have been taking place upstream. Main Rock between Mile Posts 4 and 5 has been progressively filling over 40 acres of wetlands over the years (permitted by the state), which adds to the downstream flooding. There is limited space for the water to go and opening up the estuary will likely increase the flooding potential if this factor is not carefully studied and analyzed in the development of a project design. The annual rise of the world's oceans, thought to be approximately 1 cm a year, also needs to be calculated in.



Figure 4. Ongoing fill activities upstream by Main Rock at Mile 4.6 along Kentucky Lane. (12-24-13)

When the former golf course site is newly re-opened to Coos Bay to increase the size of the estuary, complex and dynamic flow patterns are likely to occur. It is essential that the plan design takes into account the increased flows, tidal channels, and how flooding of adjacent properties to the north and west will be prevented. A hydrodynamic model that clearly researches and addresses the capacity and flow dynamics likely to occur needs to be developed and submitted for approval prior to issuance of Corps and DSL permits associated with the project. This should include monitoring that extends upstream of the proposed mitigation site and be based, at a minimum, on tides, storm surge, stream velocity, flow capacity, and projected long-term sea level rise. The current monitoring proposed in the CWM plans is far from adequate (once a year) and needs to be revised to ensure all seasons and scenarios are monitored and addressed.

The October 2014 CMP plan states that groundwater at the site was typically observed in soil pits from 10 inches depth to within an inch or two of the surface. It further states that saturation typically occurred 2 inches above this depth and that these conditions are "typical of wintertime conditions." The plan, however, does not present any data, dates, or locations to substantiate this claim. From

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driving past the site on an almost daily basis for the past 6-1/2 years, I can tell you the ground saturation is frequent and much deeper during rainy periods. Heavy rains can occur in the fall, winter, and spring, and further monitoring and analysis is needed to accurately depict the current hydrology.



Figure 5. Kentucky Slough channel west of East Bay Road bridge and tidegates. (12-24-14)

Section 4.3.2.1 of the October 2014 CWM plan for existing hydrology states the following:

Shallow ponding was observed in many locations throughout the former golf course, but was most pronounced in the western half. Ground topography throughout the former golf course varies slightly, with roughly 2 to 3 feet of difference in relief from location to location. Drift lines were observed along the edges of the higher areas, which suggest that ponding was substantially greater before the site visit occurred. This ponding is likely the result of direct precipitation, which had not occurred for more than a week before the site visit.

My first question would be, "What site visit?" And just one site visit was conducted to determine the existing hydrology? It's far from adequate. Where's the documentation. When was it conducted? The one site visit vaguely referred to in the plan is listed as having occurred in January 2009. Is that the one they're referring to? The short Existing Hydrology section refers to shallow inundation occurring during "high tide," but what high tide? Tides vary many feet with the lunar cycle. Where is the data, are there photos, and how can they possibly claim the four paragraphs in Existing Hydrology represent the existing hydrology. The science is missing.



Figure 6. Farm north of Kentuck Lane at Mile Post 1. (12-24-14)

The above photo of a farm north of Kentuck Lane shows typical flooding during heavy rains. The site is west (upstream) of the new tidegate and dike proposed in the mitigation, despite the substantial reinforcement at the existing bridge and tidegates one mile downstream. The flooding extends to the south and west of Kentuck Lane, as shown in the next photo.



Figure 7. Farm south of Kentuck Lane at Milepost 1.5. Photo taken from Kentuck Lane at Milepost 1 and is looking west beyond the proposed tidegate and berm for the JCEP Kentuck mitigation. (12-24-14)

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IND53-6 See response to IND53-7.

The October 2014 CWM plan refers to potential site constraints identified in the CWM plan authorized under DSL Permit 37712-RF, including the following:

Opening the site to tidal influence creates the risk of increased flooding potential and saltwater intrusion to adjacent and upstream landowners. New cross dike construction and repair and/or enhancement of the existing dike are therefore required to ameliorate this risk.

That all sounds well and good, but where are the studies and data to address how the new tidegate and dike will address the substantial flooding that occurs well upstream of the site they propose to block off?

IND53-6

Nautical charts from 1865 to 1937 show Kentuck Slough extending approximately 5 miles inland from its current site. By 1947 approximately 1/2 of the slough was filled in to the east, and by 1953 the slough was primarily filled in west of its current location along East Bay Road. Today the Kentuck Slough channel that remains is regulated by four large tidegates under East Bay Road, with a levy separating the channel from the former Kentuck Golf Course site (closed in September 2009). The proposed JCEP Kentuck mitigation site extends from river mile 0.0 to 0.9 of the Kentuck Slough channel. In addition, there is a 5' diameter culvert and tidegate near the southeast corner of the former golf course along East Bay Road (approximately 1/10 mile from the four existing tidegates and associated bridge) that will be revised.



Figure 8. Nautical charts at the Coos Bay Boat Building Center show Kentuck Inlet extending approximately 5 miles inland in 1937.



Figure 9. Nautical charts at the Coos Bay Boat Building Center show Kentuck Inlet as filled to the west, reducing its size approximately in half, by 1917.



Figure 10. By 1953, nautical charts at the Coos Bay Boat Building Center show Kentuck Inlet filled to its approximate location to day, with a channel now in its place.

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IND53 Continued, page 14 of 14

The CWM plan (page 10) states the Kentuck mitigation site is a "100-acre historic flood terrace" that historically "would have been classified as an estuarine wetland." Historically it was an inlet.

AND WHAT ABOUT THE MOSQUITOES?

In the summer of 2012, an expansion project undertaken by the USFWS was completed for the Bandon Marsh south of Coos Bay. The purpose of the project was to allow tidal flats to resume their natural state after being diked and used for grazing land by farmers for decades. The expansion resulted in a huge mosquito infestation the following summer that was referred to as a biological disaster. It wreaked havoc on all surrounding property owners and made ventures outside a chore to escape the mosquitoes. The increase of mosquitoes was determined to be caused by removing tidegates, digging ditches, and increasing hydrology for the expansion. The original price tag for the 1000-acre restoration project was \$4 million dollars. It inflated to \$10 million plus and could have grown upwards of \$100 million dollars if it were not for the temporary suspension of the marsh expansion in September 2013, until the situation could be contained.

While the Kentuck Slough mitigation proposed is smaller in size, it is very similar in terms of expansion of tidal flats. The potential for a similar mosquito infestation at Kentuck needs to be thoroughly evaluated and brought forward in discussions.

CONCLUSION

The estuarine mitigation proposed for Kentuck Slough by the JCEP has not undergone the serious environmental and hydrologic evaluation needed to ensure the mitigation will not result in contamination of the Coos Bay estuary, flooding of adjacent and upstream property owners, and a potential mosquito infestation that would affect area residents. The inconsistencies in the plans brought forward, together with the lack of appropriate studies and documentation, is alarming. As it stands, there is a significant potential for substantial adverse effects from the mitigation proposed at Kentuck.

IND53-7

During my time working on the JCEP under SHN, I encountered serious transparency and integrity issues with the management of both SHN and DEA. From inaccurate site plans submitted with permits to failing to address issues as they arose, the standard operating procedures of "let's wait and see if it comes out in public comment" is not the proper response to issues. Hence my public comment.

Coos Bay is my playground and I enjoy boating, fishing, clamming, and crabbing in the bay. If toxins are released into the bay from the existing plans for the project, be it from the extensive soil contamination at the main facility site or former golf course toxins released by opening up, it will likely have a devastating effect to marine life and the humans who consume shellfish if these issues presented are not fully addressed. In addition, my neighbors live up Kentuck Lane and I already see the increased annual flooding problems they have that will likely increase even more by the current plans for Kentuck.

IND53-8

It is imperative that FERC take the concerns presented in this document seriously and that the agency ensures the proper process is followed to ensure the marine and human environment will be protected to the maximum extent possible.

IND53-7

The site is currently a tidal area so while modifications would be needed these modifications should not be difficult to maintain as an intertidal and shallow subtidal region. There has been an initial report addressing hydrology (i.e., West Consultants 2010; Jordan Cove Facility Mitigation Hydraulic Evaluation of Kentuck Golf Course Restoration with New Bridge and Tide Gates., part of Proposed Mitigation Concept for Intertidal Mud Flats, by David Evans and Associates Nov 4, 2010). Additionally the applicant has conducted sampling of sediments in Kentuck Slough and values are below screening levels of concern (see Sediment Characterization Report Wetland Mitigation site Coos Bay Oregon by GRI Feb 8, 2011, in attachment R53 of the Appendix Q of the DEQ responses). There has also been a sediment quality analysis of the region. The details for development of this site will be further defined in the local permitting process.

IND53-8

Section 4.3 of the EIS includes description of the studies done at the proposed site to characterize potentially contaminated upland soils and discussion of Jordan Cove's proposed Unanticipated Hazardous Waste Recovery Plan that would be implemented during construction. Work would be conducted to avoid or minimize release of toxins into the Bay. Compensatory wetland mitigation work at Kentuck would be permitted in accordance with the Clean Water Act and the State Removal-Fill laws and Jordan Cove would have to comply with whatever measures are imposed as a result of permit review through those laws.

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IND54

Jessica Eckhoff, Phoenix, OR.
I would like to add my comment on the proposed LGN pipeline connector being planned to deliver, process and export natural gas through and to the coast of Oregon. I do not believe there has been enough consideration of the impact that this pipeline will cause, not only for the environment which it will disrupt but also the multitude of hazards that all parts of this process will expose local and regional communities to. It should be noted that the public hearing for comments in the LGN pipeline come I be same night that the local natural gas company AVISTA is holding a meeting to discuss the coming rate hikes for local natural gas customers. These natural gas companies do not have the communities who's environments they destroy in mind. Folk within these communities find it harder and harder to keep up with the monetary requirements these companies charge just to keep their own family's warm, while he companies greedily mine our collective natural resources, destroying others in the process and export those same resources in exchange for paper money, which is neither sustenance nor sustainable and which they hoard to fill their lives and our landfills with useless garbage. We really need to have re time to understand who's interests these companies are interested in serving. It is definitely not those of the natural environment or the communities of good, honest people who call those beautiful places home and wish not to see them destroyed or be put in harms way by the chemical fallout of the production and processing of natural gas. Please allow our communities more time to speak out on these issues and please make sure we take the time to reassess this issues. LGN pipeline and the Pacific Connector has no interest in helping the American People and has no place on our soil. Thank you for you time and consideration. God Bless.

IND54-1

IND54-2

IND54 Jessica Eckhoff, Phoenix, OR

- IND54-1 The environmental impacts and hazards associated with the Project were addressed in the DEIS.
- IND54-2 The 90-day period to comment on the DEIS was not extended past February 13, 2015.

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IND55

Vanessa Friedman, Wolf Creek, CA.

As a resident of Southern Oregon and a young woman increasingly concerned with the state of our environment and the disregard for our natural resources, I am very much against the construction of the LNG pipeline and would like to go on record voicing my concern.

IND55-1

It seems to me that this project is being presented as one that would bring many jobs to Oregon, but I question the validity of that idea and also question how that will help us all long term. A few hundred jobs for a couple of years is not going to negate the extremely harmful long term effects putting this pipeline into Southern Oregon will have on our communities, future generations, and the earth itself.

FERC has failed to consider the impacts of putting this pipeline in the ground, the dangers of transporting and using natural gas, the unlawful nature of a corporate company attempting to invoke eminent domain upon about 300 land owners, 90% of whom do not want the pipeline going through their land, and perhaps most troubling, the alternatives to this idea. We do not need another pipeline. We do not need more fracking. We do not need more temporary jobs. What we need is to look toward the future, and see how we can all work on projects that will help our earth and each other. I would love to see a project that involved building solar panels.

IND55-2

After attending two community meetings and gearing up to attend a third tonight, and hearing arguments from both sides, I believe the most important take away is that we need a longer comment period so that everyone's voices can be heard. FERC should extend the period by at least 30 days so that everyone has a chance to read the 5,000 page DEIS thoroughly and has time to think about what this project will truly mean for all of us.

IND55-3

Thank you for your time,
Vanessa

IND55 Vanessa Friedman, Wolf Creek, CA

IND55-1 Comment noted.

IND55-2 The economic benefits of the Project, including jobs, were discussed in section 4.9 of the DEIS. The impacts of placing the pipeline in the ground and transporting natural gas through the pipe are addressed in chapter 4 of the DEIS. The DEIS concluded that while there would be some limited adverse effects, those impacts would be mitigated to non-significant levels. Safety was covered in section 4.13. Congress decided to convey the power of eminent domain to private companies that receive a Certificate from the FERC when it passed section 7(h) of the NGA in 1947.

IND55-3 The FERC decided not to extend the 90-day period for comments on the DEIS past February 13, 2015.

IND56 Anonymous comment

20141212-5017_FERC_PDF (UnOFFICIAL) 12/11/2014

IND56

What better gift could a terrorist be given than locating LNG tanks and tankers at the end of the runway of a small public airport?



This location puts the entire population of North Bend and Coos Bay at risk of the equivalent of 160 Hiroshima nuclear bombs.

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Accidental or intentional airplane crashes or dropping a fuel-air bomb would be virtually impossible to prevent.



The hazards to public safety of such a project location are absolutely unacceptable.

IND56-1

IND56 Continued, page 2 of 2

IND56-1 See section 4.13 for risks associated with the Project.

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IND57

Robert Altaras, ASHLAND, OR.

Dear Commissioners,

I feel approval of these projects would do exactly the opposite of what is in the best interest of the people of this country and my state of Oregon.

If the DEIS had taken into account the cumulative effects of these projects, including the production of the gas to be shipped and the emissions of the power plant in Coos Bay I think we'd see a significant contribution to global warming and other environmental impacts. What I feel is in the best interest of our nation and our planet is to move away from more fossil fuels and find cleaner alternatives. These projects represent the exact opposite of this thinking.

As a fisherman, I literally worship the beautiful rivers and creeks of southern Oregon and recoil in fear at the thought of a pipeline crossing 400+ bodies of water. The risks of accidents seem way to high to justify the benefits, not to mention who actually benefits...countries of the Pacific Rim and foreign owned companies.

Please, for the sake of your children and mine, reject these proposals. Thanks you for your consideration,
Robert Altaras

IND57-1

IND57 Robert Altaras, Ashland, OR

IND57-1 The Commission would determine public benefit in its Project Order. Cumulative effects, including the effects on climate change, are addressed in section 4.14 of the DEIS. Project-related impacts on waterbodies were discussed in section 4.4. As indicated in section 4.13, the risk of accidents is very low.

IND58

Curtis, Grants Pass, OR.

Comments for Jordan Cove LNG project. I sincerely hope these comments are taken into consideration and I want to thank you for the time taken to read these comments.

I want to start by giving you an idea of the land this pipeline will go through. This rural area of southern Oregon is one of the last clean and undisturbed areas in the world. Some of the lakes north of Klamath falls in the National forest are so pure they were used as baseline levels for studying acid rain and pollutant impacts. The proposed pipeline will also cross the Rogue river. This watershed travels directly through all of the major towns and cities in southern Oregon. Contamination of this river would impact the lives of every living person, animal and agricultural production in southern Oregon. Next the pipeline travels through vast national forests that have few maintained access points. Any fire caused by or accelerated by the natural gas being transported would devastate the landscape. Fires here are commonplace in the summer. The largest fire in southern Oregon history was caused by lightning. Because of the remote access of these areas it spread and scarred the landscape on a tremendous scale. 11 or so years later it is just starting to rebound. Due to this rural and inhospitable landscape I find it hard to imagine any company maintaining and preserving a adequate level of safety in these remote locations with clean practices, many of the proposed paths for the pipeline are inaccessible in the winter and spring months.

The location of the export terminal in Coos Bay would have an even bigger negative impact for the small localized economic gains for this community. Although Coos bay is currently an economically depressed region it boasts some of the most predestine landscapes and waterfowl reserves on the West coast. Many of these ecosystems are very fragile while also being some of the cleanest watersheds on the west coast and possibly the world. Any water diversion to the proposed power plant would have detrimental impact on this watershed and water quality in the area. Our current droughts affect the watershed without any water diversion. The second negative impact will be the long term ecological damage and tourism losses. More people than one would think travel to these places along the Oregon coast. Many people come to view the last few places that are nearly untouched by civilization. Any water diversion or water contamination would render these last "clean zones" inhabitable for all species. The Coquille river for example has one of the healthiest Salmon spawning runs in the area, this proposed project will be using the water from that watershed. These are rivers and streams that have nearly no human impacts as they flow from the mountains directly into these marshland and coastal wetlands. The dredging of the bay to allow supertankers would instantly affect these areas negatively as well. All of that sediment movement and disturbance will instantly impact the coastal marine life that are relied upon by other species including humans. Even a slight increase in shipping lane use here would affect the wildlife.

In conclusion, I am aware that we need to do something as a species to address global pollutant levels. Having a Canadian company build a pipeline to supply our Domestic gas to Asia and China makes absolutely no