CITIZENS AGAINST LNG

MAY 17, 2018 10:00-11:00

MS. JODY MCCAFFREE: Hello, my name is Jody McCaffree and I live in North Bend, Oregon and in 2004 we found out that they were proposing a liquefied natural gas -- well, at that time, it was an import terminal here in our Bay Area. And once I did research on that I got kind of very concerned and that led to, in 2006, we formed a group called the Citizens Against LNG. And it's just a loose knit group of citizens that participate in the permitting and regulatory processes. And we've been, you know, quite successful because we've had FERC, who is the Federal Energy Regulatory Commission, they've actually denied the project several times.

So here we are though. The company can come back again and again. And that is the frustrating thing, you know, you put your whole life and soul into fighting something and exposing the facts about it and then you find out, well, they can just fix those facts and come back. So it's been kind of frustrating.

I have a PowerPoint presentation that I would like to present that kind of shows you what it is that is going on here. And this project is directly related, TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

Page 814 at this point, to fracking because if they weren't 1 2 hydrofracking all this gas from shale beds we wouldn't have the gas to export. This project is going to be 3 4 exporting that. 5 So I will connect you to my PowerPoint 6 presentation and hopefully this will work. 7 This slide right here is kind of a collage of pictures. And I would like to start out with this 8 9 because it kind of gives you some pictures of what our 10 area contains. We live here on the Pacific Coast. 11 There is an ocean in our front yard. You can go surfing, you 12 can go clamming, you can go crabbing, you can go out to 13 Charleston and there's fishing boats out there. You can 14 15 go past Charleston there's Shore Acres and Cape Arago 16 where you can walk on terrific trails along the beach. 17 You know, you just don't have this everywhere. 18 And the bottom part where the people are riding these dune-wheelers just to the north of the 19 20 proposed Jordan Cove proposed facility is the National 21 Dunes Recreation Area. And thousands of people come and 22 visit that area every year to ride the dunes. 23 Like this next picture is more pictures of our 24 area just because sometimes I have to go out and just 25 realize what I'm fighting for. TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833

And these are the pictures of the bay. 1 The 2 one in the top left, if you look, that is taken from the boat ramp on what we call the North Spit. If you look 3 4 in the background there you will see where they're proposing the facility. I'll show more of that later. 5 б The person down below that picture that is posing with some clams. They're clam digging right at 7 the area where they plan to dredge out for a slip dock 8 9 that will house these huge LNG tanker ships. And the 10 area to the bottom right that is at Sunset Bay. 11 What is liquefied natural gas? I thought I should cover that because a lot of 12 people don't know. And basically what it is it's 13 natural gas, and in this instance, it would be coming 14 15 from hydraulic fracking of shale beds in Canada and in 16 the US. 17 And, you know, the hydrofracked gas could contain all kinds of impurities including cancer causing 18 19 radon gas. And those gases are put into pipes and 20 they're shipped on trans pipelines and when they would 21 arrive at the facility it would be in its gaseous 22 state. So at the facility they would compress and 23 24 chill it down to minus 260 degrees Fahrenheit and at 25 that temperature it liquefies. And at the liquefied (541)343-8833 TREMAINE & CLEMENS, INC. EUGENE, OREGON

volume is one-six-hundreth of the volume that it is in
 it's gaseous state.

3 So they move a lot of energy this way. They 4 put it in huge tanker ships and it goes across the ocean 5 where it's regaseified at coastal import terminals 6 overseas and put back into pipelines. And the whole 7 process is very energy intense. It uses a lot of 8 energy. There's a lot of energy wasted.

9 These tanker ships are basically just big 10 thermos bottles. So when the pressure builds up because 11 this LNG is constantly wanting to go back to atmospheric 12 temperatures they have to release that excess gas or 13 burn it off.

14 It is dangerous. There's been accidents over 15 the years. In 1944 Cleveland, Ohio had a big accident 16 with a storage facility, 128 people died.

17 In 1973 some workers were cleaning a storage 18 tank that was empty and it exploded and 37 people died 19 there.

And in 2004 in Algeria 27 people died when there was an explosion at a facility. So, you know, we have some concerns.

The tanker ships that would be coming into our area hold an average of 39 million gallons of LNG. And that's far greater than the amount that leveled one TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

squire mile of Cleveland in 1944. So these are quite a
 bit bigger boats and ships than what we're used to
 having.

Here is a picture of the Port of Coos Bay, the entrance to our channel looking towards the north in an area that we call the North Spit. I'll show you right up in there is where the proposed LNG facility is, they're proposing.

9 There is another picture down here that shows a little bit the same area. The channel is quite narrow. 10 It doesn't look that way in these pictures but if you 11 look at the aerial shot looking straight down you can 12 see that it isn't that wide and the yellow push pins 13 here are where the LNG slip dock is proposed, the 14 15 storage tanks, and the safety center and work force 16 housing and the city of North Bend. You can see also 17 the runway, the airport there, that is very close.

Here's some pictures too. Like this was taken at a Coos County Board of Commissioner meeting in 2015. And a cargo ship happened to cross and you can just see how close the buildings are to the shipping channel.

And if you look in the bottom lower right that is just a general cargo ship that comes and visits our area. You can see how narrow it is. You can see the North Spit. We're standing on Cape Arago Highway, which TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833 is just to the west of the city of North Bend and it's
 just not a very wide channel.

Here is a comparison this Daio paper ship to 3 4 an actual LNG ship and it's actually one of the smaller LNG ship so you can see the size difference. And Jordan 5 Cove is saying that they will have a maximum of 120 LNG 6 carrier calls per year. And that's actually between 220 7 and 240 harbor disruptions because they have to have 8 9 this bubble of security around these tankers both coming and going. 10

11 And because these tankers have a 40 foot draft 12 and because our channel is only 37 feet so they have to 13 do their transits at high slack tides, which are prime 14 tides for other Bay Area users.

And if you look at this, this is actually looking at both the security, the 500 yard security zone that they have imposed around the tankers, and the reason they have that is because these tankers have a huge hazardous burn zones.

20 If there was to be an incident the burn zone 21 goes out to this outer blue limit. The first zone in the yellow there that you're not going to likely survive at 22 The green is a mile out. People are at risk 23 all there. 24 of receiving second degree burns in 30 seconds at a mile 25 out and you're still at risk farther, but it will take a TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833

little bit longer. So there's extreme hazards if there
 was to be an incident. So there should be some real
 concerns here.

4 Other ports have not allowed these facilities 5 because of this hazard but a lot of people here do not 6 have the experience in this kind of a type of industry 7 so they are not really up on it.

8 The Coast Guard in 2008 had a Water Stability 9 Report and they said that no vessel could enter this 500 10 yard safety and security zone around the tanker ship 11 without first getting permission from the Coast Guard, 12 the captain of the Coast Guard. And, of course, and 13 then in our instance because we're rural that person is 14 in Portland, which is several hundred miles from here.

So this could have a real negative impact onour fishing and other bay users that use Coos Bay.

17 Back in 2003 there was a congressional research service report that showed that the public cost 18 19 to secure the first LNG tanker ship back to the Everett 20 terminal after 9/11 was around \$80,000.00. And the 21 cities back there they estimated, Boston and Chelsea, that it was 37,500 out of their public city budgets to 22 safequard that first vessel. And that's in addition to 23 24 what the terminal owner provides. So this is an expense 25 on your public services. TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833 According to the Jordan Cove DEIS they stated that 31,560 trips per year occurred from recreational boaters in the Coos Bay and a lot of that is for fishing. And the Oregon Department of Fish and Wildlife has stated that in the coastal communities up to 20% of the total net earnings in our communities come from fisheries.

8 And if you look at that picture, it's not 9 really a good one on the bottom of the screen, there's 10 about six boats out there, a lot of recreational boats, 11 and this is right looking right where Jordan Cove is 12 being proposed. So there would be an impact to this 13 recreational fishing.

Ocean acidification. A lot of people talk about climate change as what could happen. But ocean acidification is already happening and we've already had it cost our oyster industry in the Pacific Northwest nearly 110 million and it's jeopardized about 3,200 jobs.

And what happened is in 2006 they noticed that they had 80% die-off of their baby oysters at the Whiskey Creek shelters hatchery in Oregon. And about the same time they were having the same problems up in Washington at a hatchery they have up there.

25 And what was causing it? After two years they TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

discovered that it was actually the ocean ph. That the ocean, the acidic nature of the ocean had actually changed and caused the -- it was so acidic that the baby oysters couldn't build their shells so they basically were dying because of that.

б And, you know, they were able to solve these problems by getting tanks and now like our local oyster 7 8 companies they put their baby oysters in these tanks and 9 keep the ph until they're big enough that they can make 10 it in the estuaries. But you've got to realize there's lots of clams and oysters and crabs that they don't have 11 a tank to go in have to their baby oysters be saved from 12 this. 13

14In January of 2018 the Oil Change15International did a briefing and they determined that16the Jordan Cove LNG project would be Oregon's largest17greenhouse glass polluter, equivalent to 15 times the182016 emissions from Oregon's only remaining coal plant.

So this is not a clean fuel. It's not a good --19 20 they wanted to have it as a bridge fuel but it's 21 actually, as far as greenhouse gases, we can see it's 22 worse in some cases. And the briefing also found that there was no real evidence to support that the project 23 24 would replace goal in global markets. That is in with 25 my Brief if you want to read this report. TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833

Page 822 And I do hope that you will look at the Brief 1 2 I provided because there's no way I can go over all the stuff that is actually in that Brief. 3 4 I'm going into some other areas. This 5 dredging is directly related to the Jordan Cove Project 6 because their tanker ships are so large they would have to dredge the bay. They are wanting to remove 5.6 7 million cubic yards of material just to build their slip 8 9 dock and access channel. 10 They also have about 700,000 cubic yards of material that they would be removing from the 11 navigational channel. 12 13 In addition to that though the Oregon International Port of Coos Bay is also proposing the 14 15 removal of 18 million cubic yards of material. So 16 that's a direct result of Jordan Cove. 17 And just to give you an example the 5.7 18 million cubic yards of dredge material would be 19 equivalent to 26.88 football fields built 100 feet high 20 with dredge material. That is an enormous amount of material that would leave our estuary and it would not 21 22 do so without having negative impacts. The dredging is a problem because when 23 24 sediments gets in the water we have a pretty swift tidal 25 actions here and oysters are filter feeders and they TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833

cannot take large volumes of dredging sediment in the
 water and actually it will have big die-offs.

And our oyster growers have had some problems with this sometimes, you know, for other reasons. When it's really stormy they have to go lift the oysters up even to get them off the floor. So it's a serious problem.

And also dredging there's some studies that show that it's harmful to the Dungeness crab which represents a valuable fisheries on the West Coast. So I'd encourage you to look at that stuff in the study in my Brief, in my briefing.

Coos Bay actually has -- is a big travel -people come here to enjoy our beaches and to recreate on the North Spit and see our adventure coast. And in 2016 they spent, in Coos County alone, \$265,000,000.00, which is a big part of our economy here.

18 In fact the last four years it was over a 19 billion dollars that came into our local economy. And 20 it's directly related to 3,280 local jobs here. These 21 jobs will be negatively impacted by this project.

There's also an issue with the airport. On May 7th, the FAA released 13 determinations of presumed airport hazards with respect to this proposed project.
Nine of those involved the transitioning of LNG tanker TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

1 ships.

2 And in the bottom right you can see the airport runways and where these storage tanks would be. 3 4 And the facility itself is -- has a problem because it 5 releases -- when you liquefy natural gas there is a lot 6 of heat that is expelled into the air and this creates another hazard with what they call a thermal plume 7 because the planes can't see it and it can actually flip 8 9 a plane on take-off and they're too low to the ground 10 for them to be able to recover. So there's some serious issues here with the close proximity of our airport to 11 this proposed project. 12

Here is a picture of the runway, the eastwest runway, and how close it is to the navigational channel there in the blue. It's just really not that far from planes coming and taking offer.

17 There is other local impacts too. In Kitimat 18 housing prices and rents have as much as tripled. And 19 also in my Brief, this is more detailed in my Brief, I 20 show this graph where the oilsands, as the expenditures 21 increase so did the housing and rent prices.

And this is kind of difficult for an area like our area because we have low income here and I know in places like Sakhalin Island where they also have a proposed LNG facility the local people, the prices went TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

1 so high that local people couldn't afford them.

And we know right now we have only a 1% vacancy in our renting and so that can be a real problem with 2,000 workers coming in that will be building this facility. It's also shown that crime and other health impacts on our health care facilities and stuff it will all be impacted because that is a big influx of people coming into a rural area.

9 The Jordan Cove Project also has a 229 mile 10 36-inch pipeline that is going to operate at 1,600-lbs 11 per square inch. It will be transporting 1.2 billion 12 cubic feet of gas per day either on the GTN network that 13 comes down from Canada or the Ruby pipeline that goes to 14 the midwest. Pembina, which is a Canadian company, is 15 100% owner of the Pacific Connector gas pipeline.

About 148 miles, 65% of the proposed pipeline route, would cross private property and this can be taken by eminent domain and that would be via a Canadian owned and operated company. And a lot of land owners are pretty upset about this.

21 We have people that have ranches and timber 22 people that depend on their timber. This clear cut it 23 would be a 95 foot clear cut through Oregon and, you 24 know, people don't feel that a Canadian company should 25 have the right of eminent domain. 26 TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833 1 The Pacific Connector or the proposed Pacific 2 Connector would cross five rivers. Several these of 3 rivers it crosses more than once. That's the Coos, the 4 Coquille, the Rogue, the South Umpqua and the Klamath 5 Rivers.

6 The pipeline would impact or cross about 342 7 streams and many of these are spawning ground for salmon 8 and steelhead. So you can see the impact to the 9 fisheries with the pipeline also.

About 148 miles of the pipeline is privately owned and 62 miles of that are held by timber companies. And here are some pictures of some of the trees that would be permanently removed and taken out of production.

15 There will be a permanent 30 feet clear cut 16 through our forest zones, our forest lands, and the 17 result is about 4,947 acres of disturbance overall.

Here's some of our history. And Jordan Cove began in November 2004. FERC vacated the first order that they'd done in April of 2012. Jordan Cove reapplied in 2013. We went through the whole process again, which is a federal process, state process and there's dozen of local processes.

So FERC on March 11th actually denied the
applications and here on September 21st, 2017, Jordan TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

1 Cove came back again and refiled an application and were 2 once again back in the federal energy regulatory process 3 for drafting an environmental impact statement which 4 will be out at some point here for review and comment.

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5 Once again we spent hours and hours and hours 6 commenting and putting stuff into records. And then we 7 have to challenge them if the decisions are not made in 8 the best interest of the public.

9 And here is just a list and this is not even 10 half of the local permits we've had to do. And what 11 happens is we challenge them. We show the flaws and 12 Jordan Cove goes and fixes the flaws and they come back 13 and then we have to go through this whole process again 14 and again and again and it is just wearing. It's so 15 unfair to people.

We have raised money, hired lawyers, but we're up against millions of dollars. In fact this year alone \$135,000.000.00 that we will be up against Pembina that they're going to invest in these processes.

Here's what the North Spit looks like right now today and, you know, it's an area where people recreate and they can do lots of things.

And this is what, you know, some people want it to look like in the future. And, you know, is it the jobs' answer? TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

We think there is a better way to go than 1 2 this. So that's the end of my presentation and if 3 4 you have any questions I'll be happy to take them. 5 DR. THOMAS KERNS: I can testify that 6 Jody has spent years on this just spending her energies and resources down to nothing working on this, just over 7 exhausting herself. So her testimony here is 8 informationally worthwhile and personally very, you 9 10 know, personally earned. MR. GILL BOEHRINGER: 11 Jody, Gill Just one question and perhaps no one knows 12 Boehringer. the answer. 13 14 I was just wondering what percentage of the 15 product of fracking, let's talk about the LNG, what 16 percentage of that is being used for energy and what 17 percent is being shipped out for profit, shipped out Do you have an idea or just an estimate? 18 overseas? MS. JODY MCCAFFREE: Well, in the Brief I 19 20 filed there is a page where I talk about, well, what's 21 lost in the shipping, you know. Because really natural gas should be consumed on the continent that it's 22 produced on and by putting it in a ship and shipping it 23

24 you do lose a considerable amount.

25 It's in there from a study that I quote they TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

Page 829 say how much is lost but I don't know overall but I 1 2 could get that information for you. You know, it really depends on how much volume they're exporting and I'm not 3 4 an expert in those. We'll have to find people that are. 5 That's the problem. We're just citizens trying to fight. 6 MR. GILL BOEHRINGER: 7 Yeah. Yeah. I'm sorry, I'm not sure I put it clear enough. 8 9 I was just wondering what percentage of the LNG stays in the country for energy and what is shipped 10 out to get profit, shipped out to other countries. 11 12 MS. JODY MCCAFFREE: It's all for export, every last little bit of it. 13 14 They tried to say, oh, we're going to take an 15 off shoot of the gas and have it go somewhere but when 16 they really, when you're looking at the volumes they're 17 asking the Department of Energy to export it's actually 18 more than they are applying to FERC to put in the 19 pipeline. 20 And we just last week, that's one reason why I 21 feel like I wish I had more time to work on this, but last week we had a deadline with the Department of 22 Energy they wanted to increase the volume of gas that 23 24 they would export. So it's right at one-billion cubic 25 feet a day for non-free trade agreement nations and the TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833

Page 830 Department of Energy also agreed 1.2-billion cubic feet 1 2 a day to free trade agreement nations. So basically you're talking that is the whole 3 4 amount of gas that would be in the pipe that they would sell it 100% for profit for a private company to export. 5 MR. GILL BOEHRINGER: So that's another б 7 reason why it's not really a bridging fuel as far as the United States goes. I mean it could have been an 8 9 irrelevant fuel except for the damage that it's causing. 10 MS. JODY MCCAFFREE: Yes. It's a 11 considerable damage to America. And the reason that this is a Canadian company 12 and they're down here and they're trying to put a LNG 13 terminal here is because they can't get the pipeline 14 15 through the First Nations Territory up there to their 16 coast line in Canada. They have lots of issues up there 17 People won't allow these facilities. too. 18 They consider Oregon a weak link because we do 19 not have the environmental protections at the state 20 level like the state of Washington and California do and 21 also Canada. 22 Oregon used to be a leader in protecting the environment but our land use has not been updated and 23 24 what we're finding is that's not the case any more. 25 I mean we have seen, and it's been frustrating TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833

1 to me, because I think, well, somebody is looking out 2 for this, somebody is protecting us, and they're not 3 really.

I mean I'm not saying they're not people that try to do that but the agencies overall what we see is rubber stamping going on. It's particularly at the local level. They just rubber stamp anything and it's like who is protecting this? I don't know.

9 I thank god that FERC said no. I mean because 10 they finally looked and saw this project is so flawed 11 that they couldn't even accept it as being acceptable. 12 And I pray that that is it again.

But why should we have to keep coming back? IA I have said the same thing to a lot of these permitting processes over and over and over again all my time. It's 100% takes all my time. I don't know how much The more, you know, that I could keep doing this but it's very frustrating.

MR. GILL BOEHRINGER: Well, your presentation was impressive and what you've done is marvelous but one can understand the frustration and wearying nature of the impending further disasters that you and your people face.

It's interesting because we've been talking
about the system. I mean, let's face it, we're talking TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

1 about capitalist corporation and they want profits and 2 as Marx and Engels said in the communist manifesto they 3 chase all over the world to find the resources and the 4 markets and so forth.

And I like the use of the phrase "weak link" 5 6 because in a previous PPT we were looking at the garment industry in Asia and one of the problems there, of 7 course, for the workers and local people is that the 8 9 factory owners want to pay the cheapest labor they can. So they look for a weak link and it became Bangladesh. 10 And we know what happened in Bangladesh at Rana Plaza. 11 More than 3,000 people were killed. 12

13 So it's definitely a system and it's not just 14 in one industry. It's in every industry in this system 15 which now dominates the economy of the world.

16 Thanks very much. It was very helpful. 17 MS. JODY MCCAFFREE: Yes. They're here because, you know, they saw people that would just roll 18 19 over on the cheap thinking this was jobs. And it's 20 really even not that many jobs. It's actually only 21 going to be 180 jobs in Coos County. I mean that's not 22 that many jobs for the huge impacts this facility would have and the negative impacts. 23

We're actually going to lose jobs, I think,
overall between our tourism and other industries that we TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343-8833

have here because of the impacts, you know. And the 1 people don't know. They're not smart enough to ask the 2 right questions. That's what so frustrating. 3 4 MR. GILL BOEHRINGER: And presumably part of the propaganda or, as they would say, the PR is that 5 6 there's going to be more jobs. 7 MS. JODY MCCAFFREE: Yes. They claim all these secondary jobs. 8 9 MR. GILL BOEHRINGER: You know, Izzy Stone, the late lamented Izzy Stone once said that all 10 governments lie. And I suspect if he were alive today 11 and still writing he would say all corporations lie 12 certainly in this industry. 13 And that seems to be suggested by the evidence 14 15 we've been receiving. 16 MS. JODY MCCAFFREE: Yes. And what we've 17 found here too is that what they've done is they come in here and they bought elections. I mean they can put out 18 19 money. You know, we are not that well-off. People 20 can't do that. 21 So they took over our commissions and then they changed the rules and it's very frustrating because 22 you're up against so much money and then people get 23 24 elected and you have no voice then. 25 DR. THOMAS KERNS: Thanks Jody. TREMAINE & CLEMENS, INC. EUGENE, OREGON (541)343 - 8833

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