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Portland Planning and Sustainability Commission
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Submitted in person and via email to: psc@portlandoregon.gov

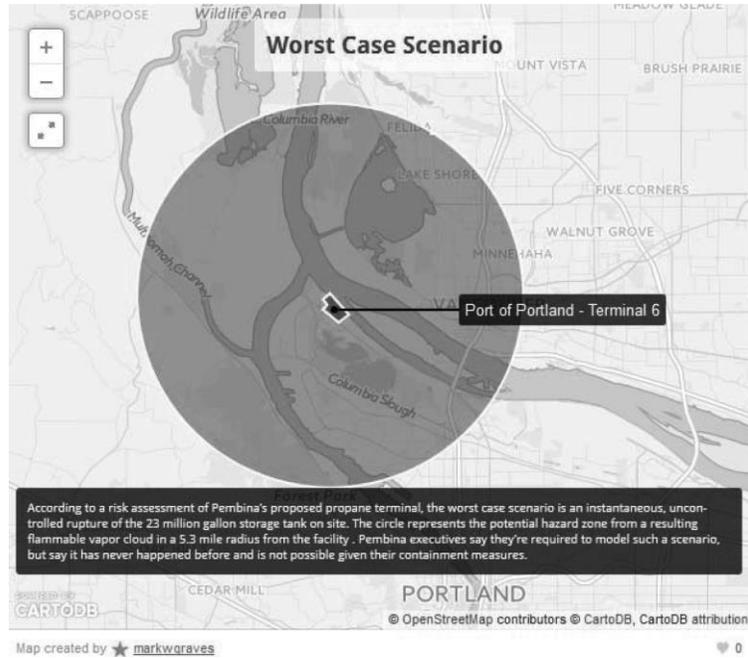
RE: Comment Opposing Proposed Draft Terminal 6 Environmental Overlay Zone Code & Map Amendments

To Portland Planning and Sustainability Commission Members,

Columbia Riverkeeper (Riverkeeper) and the Lands Council are deeply concerned about the potential environmental, public safety, economic and climate consequences of Pembina Marine Terminals' proposed propane project at the Port of Portland's Terminal 6. Riverkeeper and the Lands Council urge the City of Portland to deny proposed amendments to the environmental overlay zone code and zoning map, changes that would facilitate the construction and operation of Pembina's large propane export terminal. The information available to the Portland Planning and Sustainability Commission ("Commission") is insufficient to fully address the potential environmental, public safety, climate and economic ramifications of Pembina Marine Terminals' proposed propane terminal. As a result, the Commission should deny Pembina's requested amendment to allow liquid propane to be piped through environmental zones.

The Commission can choose to leave the environmental overlay zone code as it is. In so doing, the overlay zone would continue to prohibit the conflicting use of piping liquid propane – a hazardous material – through Portland's environmental overlay zone. The Economic, Social, Environmental and Energy (ESEE) analysis is meant to inform the Commission's deliberation on how retaining or altering the current prohibition on liquid propane pipes may impact the community. Yet, the ESEE does not provide a comprehensive assessment of the impacts of allowing liquid propane pipes as a limited use because Pembina has not yet produced critical information about the impact of the project. Examples of documents or reviews that should directly inform that Commission's decision-making regarding the Pembina project include:

- Final Quantitative Risk Analysis (QRA).** Pembina has provided an inadequate amount of time for the public, staff, and the Commission to review its risk analysis and independently vet its conclusions. The QRA is limited in its assessment of off-site impacts, but even its own analysis raises serious questions about the ability of local first responders to deal with worst case scenarios. How would first responders evacuate an area large enough to protect the public from a large liquid propane leak, fire, or explosion? The QRA fails to provide this level of detail but clearly identifies hazards that extend through large portions of Portland.



Source: *The Oregonian*, based on Pembina March 2015 Draft QRA.

- Analysis of rail & marine safety impacts outside of Pembina site.** Pembina’s QRA notably omits any analysis of rail and marine hazards associated with liquid propane transport outside of the terminal site, itself. Approximately one in nine Multnomah County residents live within 500 meters of rail lines that could carry liquid propane unit trains (based on a similar analysis conducted for the same rail routes being used for coal).¹ These 80,000-plus individuals deserve detailed answers to how they may be impacted by potential propane transport through our community.

In its “worst case” analysis, Pembina fundamentally understates the potential risks from a rupture of multiple 30,000-gallon propane rail cars. On page 206 of Pembina’s QRA, Pembina assesses the case of a single rail car exploding. The QRA does not assess the impact of multiple cars in a propane train failing, nor does it attempt to superimpose the resulting explosion or fire on neighborhoods near the rail line outside of the terminal site. Lastly, Pembina’s draft QRA provides only a limited review of the different types of rail cars that may be used to deliver propane to the Pembina facility. Already, there are a range of DOT-112 cars available, and these cars have failed while carrying propane in Canada.

- Climate Action Plan.** Pembina has not demonstrated how its project would comply

with the City's existing climate policies. "Stewardship, development and maintenance" of the Portland's Climate Action Plan is one of three areas of responsibility specifically designated to the Commission. The City's draft Climate Action Plan currently contemplates establishing a local fossil fuel export policy and "opposing exports of coal and oil through Oregon." Columbia Riverkeeper and others have urged the City to include all fossil fuels - including liquid propane and liquefied natural gas (LNG) - in its fossil fuel export policy.ⁱⁱ

The Commission has not formulated – nor has the public fully vetted – an approach to assessing and preventing the climate change pollution that would result from the project. The Commission should not rush to make a change to its environmental overlay zone code on behalf of Pembina without clearly and methodically considering how such a change and the resulting terminal would conflict with the City's goals for addressing climate change pollution. The Commission simply has not had the opportunity to vet Pembina's climate pollution information or to develop an independent analysis. Even so, the City's ESEE indicates that the Pembina terminal would be a significant contributor to the City's own emissions, and carbon pollution related to the propane would be measurable on a global scale. Propane should be included with coal and oil as part the City's fossil fuel export policy, and the Commission should deny Pembina's proposal because it will conflict with the City's climate pollution goals.

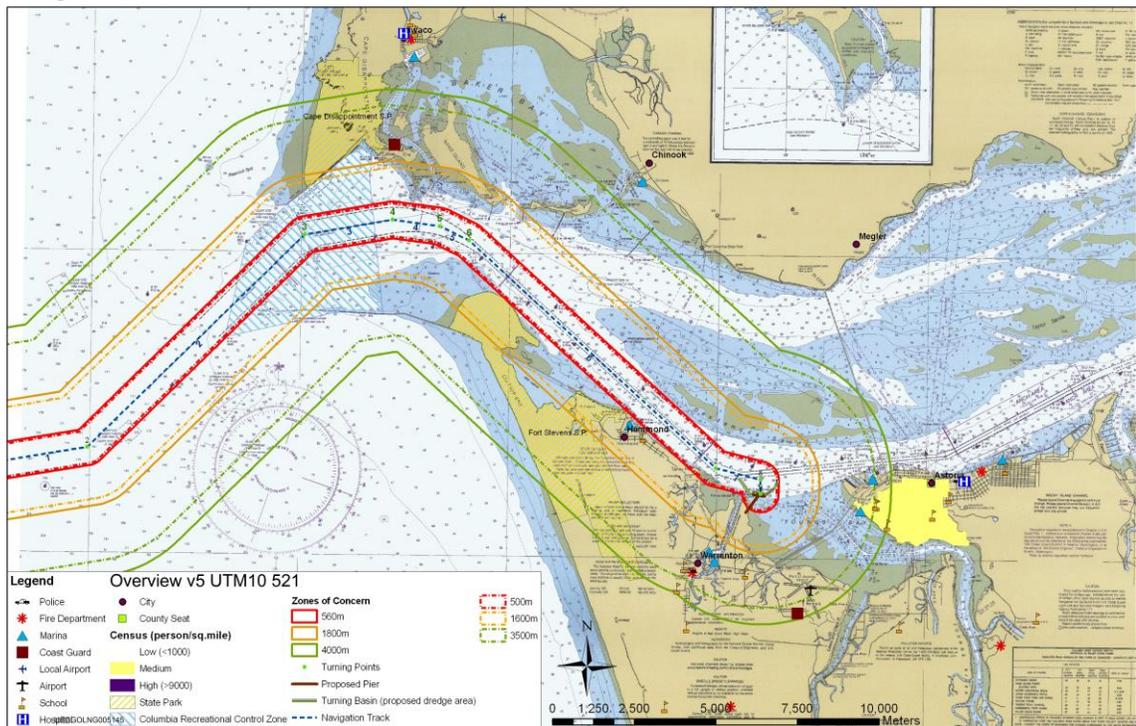
- **Draft Emergency Response Plan (ERP).** Pembina indicates that it will develop an ERP, but the Commission has not yet been provided a basic gap analysis to assess the feasibility of responding to an emergency at Pembina's proposed facility. Many commenters have noted that Portland is unprepared to deal with a large propane explosion or fire, and Pembina has provided no information to demonstrate that detailed planning has occurred to resolve the problem. Pembina has not yet identified evacuation zones in neighborhoods along the rail route, cities near the tanker transit route on the Columbia River, or areas near the facility during a large propane leak, fire, or explosion. The staff report indicates that, "depending on the size of the release and weather conditions, additional steps may include establishing roadblocks, notifying adjacent neighbors, or implementing shelter-in-place and/or evacuations of potentially affected areas." These measures are too vague to provide a basis for the Commission to approve Pembina's requested changes.

A large leak of liquid propane is not unimaginable, and a recent LNG leak in eastern Washington in March 2014 provides an indication of how an emergency might unfold. On March 31, 2014, an explosion at the Plymouth LNG facility in eastern Washington injured five workers and caused a recurring, large LNG leak. According to the Tri-City Herald, residents and workers were evacuated for two miles around,

and the explosion was heard 20 miles away in Oregon.ⁱⁱⁱ Some residents spent a night away from their homes as the hazard dissipated. Recognizing that liquid propane may behave differently than LNG, a liquid propane facility poses hazards that could meet or exceed those introduced by the LNG storage facility in Plymouth. An evacuation of a similar 2-mile radius or a much larger area in Portland near Pembina's liquid propane terminal – including Hayden Island homes and businesses – would potentially be untenable. Pembina has not provided information adequate to demonstrate that an evacuation would be feasible in the areas where it could be necessary.

- Waterway Suitability Assessment.** The Pembina project will impact the safety of downstream communities and impact other recreational and commercial users of the Columbia River. Pembina's QRA examines the hazards of a 550,000-bbl release of liquid propane from its largest tank, and this is roughly the same quantity that could be moved in a very large gas carrier. As a result, the hazard areas identified in Pembina's own worst case scenario may also apply to the entire tanker route.

According to Pembina, they have been directed by the Coast Guard to assess the impacts of liquid propane tankers as if they were liquefied natural gas (LNG) tankers. The map below was produced as part of the Waterway Suitability Analysis for Oregon LNG.



The Commission should recognize that the hazards for Pembina's propane tankers

would be similar to the zones shown for Oregon LNG's incoming tankers, except Pembina's tankers would travel much further upriver to Portland. Given the region's experience with LNG risks and the lack of information regarding the marine safety aspects of Pembina's proposal, the Commission cannot conclude that Pembina's projects will protect the economy, public safety, and environment of downriver communities.

Furthermore, the measures required to safeguard incoming and outgoing liquid propane tankers will disrupt other River users. These impacts are only lightly addressed in the City's ESEE. In highly controversial LNG projects downriver, the Coast Guard concluded that one-way commercial vessel traffic would be necessary in the shipping channel with very limited passing zones. Additionally, vessels would be restricted from coming within 500 yards of an LNG tanker without permission from the Captain of the Port. (See attached documents from the U.S. Coast Guard review of the Bradwood LNG and Oregon LNG terminal projects.) Similar measures – if applied to propane tankers visiting Terminal 6 in Portland – would significantly impact the entire lower Columbia River system, from the Columbia River bar to Terminal 6. The Commission needs more information about the impacts to other users of the Columbia River before approving Pembina's requested land use code changes.

- **National Environmental Policy Act (NEPA) or other environmental reviews.** Pembina has indicated that it plans to submit an application to the Army Corps very soon, but the public has not yet been able to review basic environmental information about the potential impacts of Pembina's project. For LNG projects in Oregon, state and federal environmental reviews produced significant information about unanticipated environmental, economic, and public safety impacts. The Pembina propane terminal deserves the same level of scrutiny, but the Commission is being asked to approve environmental overlay zone code changes prior to having adequate information about the environmental impacts of a large propane export terminal. It is premature for the Commission to approve a change to the environmental zone overlay without first understanding the environmental consequences of having a large propane facility at Terminal 6, and the City's ESEE is too incomplete to be relied upon to reach firm conclusions. Yet, information provided to the Commission thus far clearly indicates that the risks associated with Pembina's tanks, unit trains, and liquid propane tanker ships pose a significant threat to wildlife, aquatic resources, and human health and safety above and beyond the risks already present from other industrial uses in the Portland area.
- **Revised ESEE.** City staff produced an ESEE for public review long before Pembina had submitted critical information regarding the potential hazards of the proposed

facility. The public deserves a chance to see a revised ESEE before providing additional testimony to the Commission. The ESEE should also look at the impact of the project to the entire City – the Columbia River, rail routes through Portland, and nearby neighborhoods. Furthermore, the ESEE improperly excludes potential impacts to the riparian corridor from the Pembina proposal. All parts of the terminal enabled by the proposed zone changes are not water-dependent or water-related, but will impact the riparian resources of the City that are protected under Goal 5. The ESEE does not properly address the protection of Goal 5 resources, particularly given the catastrophic risks and extraordinary engineering measures required to mitigate those risks next to the Columbia River.

Because of the obvious hazards associated with Pembina's facility – evident even in Pembina's own QRA in the Worst Case Analysis at the end of the report – the burden of proof rests on Pembina to demonstrate that its project will protect the health, safety, and environment of Portland and other impacted communities. Pembina's submissions fall far short of ensuring that the project will protect these values. A retired Oregon state hazmat inspector recently told the *Oregonian*, "We've had a couple of tank cars every week here and there. Emergency responders are prepared to handle one car of propane being on fire... In terms of a major stack up, like we've had with crude oil, the metro area has never seen anything like that. There's just no capacity on hand to handle anything of that size."^{iv} Eyer continued, "When propane goes we have seen these multi-ton tank cars go for upwards of a half mile, literally taking off like rockets." The Commission should deny Pembina's proposal because of the projects' dramatic destructive potential and Pembina's failure to demonstrate that its project will protect public safety.

The Commission's decision to change Portland's environmental overlay zone code would facilitate increased propane-by-rail traffic that would impact communities near major rail lines. Lacking a specific rail route for the project, the Commission must assume that the proposed propane-by-rail traffic could impact the health and safety of Spokane, Vancouver, and many Columbia River gorge communities in addition to Portland's own neighborhoods. Likewise, downstream communities along the Columbia River shipping channel – such as Woodland, Rainier, Longview, Astoria, and Warrenton – face serious hazards from loaded liquid propane tankers. And because Pembina has not detailed the safety and security measures that would be necessary to protect the public from a large propane facility, the Commission also lacks information to assess how a properly functioning facility will impact public resources, such as emergency response capacity and river access.

Pembina will surely argue that our questions and those raised by Hayden Island residents, neighborhood groups, and local labor organizations should be resolved after the Commission approves its requested environmental zone code amendment. However, Portland's residents rely on their own Planning and Sustainability Commission – not future reviews and processes that

may be hidden from public scrutiny – to make difficult decisions and to protect the public’s interest. The Commission must not defer to other agencies whose review processes will be far from transparent. For example, most of the development of the Coast Guard Waterway Suitability Analysis will be developed in the absence of public input because of the security-sensitive nature of the information involved. Based on Oregon’s experience with LNG proposals, the final recommendations will be public, and these recommendations will directly impact the ability of people to fish, recreate, and do commerce in and near the Columbia River. Additionally, development of the Emergency Response Plan will only involve a limited range of perspectives and may not trigger public hearings, despite the enormous risks and lack of capacity described in the Oregonian’s recent article from March 21st. In short, the public trusts the Commission to require and use detailed information in determining whether Pembina’s proposal warrants the requested environmental overlay zone changes, and that information is simply not available to the Commission at this time.

The proposed Pembina Marine Terminals propane project in Portland is similar in many ways to highly controversial liquefied natural gas (LNG) proposals on Oregon’s coast and Columbia River. Oregonians have debated the safety, economic impact, and environmental implications of LNG proposals for over ten years because the projects would dramatically change the communities around them. Pembina’s proposal is similar in the hazards it introduces to nearby communities. Yet, unlike LNG terminals in Warrenton and Coos Bay, it has received little detailed review, and it may never receive a thorough, unbiased consideration if the Commission rushes to grant the requested changes to the environmental overlay zone code and map. Based on Pembina’s own QRA and Oregon’s long experience with assessing LNG projects, the Commission has the information it needs to reject the Pembina project and the company’s requested land use changes. At the very least, the Commission should create the time and opportunity for the public to gain knowledge about the implications of liquid propane storage and transport.

Because of the volume and complexity of material submitted on or before April 7, we request that the Commission hold the record open for no less than 7 days. We urge Commissioners to recognize that they are being asked to make a very significant decision without the benefit of critical environmental, public safety, health, and economic information, and we further ask that the public be given the opportunity to review new information submitted prior to and during the Planning Commission’s hearing. If a decision must be made soon, the Commission should deny the requested environmental overlay zone changes and map amendments because the Commission cannot reasonably conclude that Pembina’s proposed propane terminal will be compatible with the City’s economic, environmental, public safety and health, and climate goals and policies.

Sincerely,



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Tom Armstrong, Supervising Planner

ⁱ Multnomah County. 2013. The Human Health Effects of Rail Transport of Coal Through Multnomah County, Oregon.

ⁱⁱ City of Portland Draft Climate Action Plan. March 2014. P. 69.

ⁱⁱⁱ "Evacuation radius near Plymouth plant to be reduced." Tri-City Herald. March 31, 2014.

^{iv} "Study says North Portland propane terminal would be safe; neighbors point to other risks." Oregonian. March 21, 2015.