

Memo



TO: SEPA File for Parcel 77 Auto Import Terminal Project

FROM: Mark Rettmann

CC: Tony Warfield, Jason Jordan

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RE: Evaluation of BHPTRP Noise Study

The noise study and noise section of the adopted Blair-Hylebos Peninsula Terminal Redevelopment Project (BHPTRP) Final Environmental Impact Statement (FEIS) issued February 2009 was evaluated for applicability and potential incorporation by reference into the Parcel 77 Auto Import Terminal Project (Parcel 77 Project) SEPA. The FEIS evaluated environmental impacts, including noise impacts, associated with the following:

- Relocating the Totem Ocean Trailer Express terminal
- Building a new international container terminal (1.4 million TEU/year)
- Widening a section of the Blair Waterway
- Lengthening a wharf at Washington United Terminals
- Improving road, rail and utility infrastructure

The FEIS evaluated noise impacts associated with the above improvements, including three large rail yards (Taylor Rail Yard, YTTI Intermodal Yard, and Arrival/Departure [A/D] Tracks). The Taylor Rail Yard was proposed to be a 12-track rail yard east of Taylor Way, between Lincoln Avenue and SR 509 (just east and northeast of the Parcel 77 Project). The YTTI Rail Yard was proposed east of Alexander Avenue near E 11th Street consisting of six working tracks spanned by overhead rail-mounted gantry cranes. The A/D Tracks were proposed extending from the Taylor Yard along SR 509 to Chilcote Junction (e.g., approximately Port of Tacoma Road and SR 509).

The FEIS evaluated noise based on the Federal Highway Administration (FHWA) policies for state highway agencies in the Procedures for Abatement of Highway Traffic Noise and Construction Noise in the U.S. Code of Federal Regulations (23 CFR 772), the Washington State Department of Transportation (WSDOT) Noise Abatement Criteria (NAC) as mandated by FHWA that specify exterior traffic noise level limits for various land activity categories where frequent human use occurs, and based on the City of Tacoma's noise ordinance. Based on the FEIS, the applicable exterior NAC for the BHPTRP area is Category C (developed, industrial lands) which is 72 dB(A).

The improvements on the Blair-Hylebos Peninsula associated with the BHPTRP, including the Taylor Rail Yard and YTTI Intermodal Yard, were not implemented, therefore, no noise or other environmental impacts associated with these proposed actions have been produced or realized. Therefore, the FEIS noise section and noise study was reviewed for potential reference and incorporation into the Parcel 77 Project. Given the magnitude, location, and operations of the FEIS proposed rail yards and the intermodal/container cargo, the noise impacts evaluated in the FEIS are conservatively high compared to the Parcel 77 Project.

The Parcel 77 Project includes a double-ended rail yard consisting of 6 rail spurs for loading automobiles into rail cars. Loading of rail cars will occur primarily between 6:30am and 3:30pm Monday through Friday, with train movements occurring primarily between 10pm and 6am Monday through Friday. The Parcel 77 Project rail yard is located just east of the BHPTRP Taylor Rail Yard. A more detailed description of operations, rail operations, and traffic can be found in the Parcel 77 Project SEPA and Traffic Impact Study.

As compared to the BHPTRP scope evaluated in the EIS, the Parcel 77 Project is considerably smaller in geographic size, type and scale of operations, traffic generated, and size/number of rail operations. The Parcel 77 Project rail operations are less than 1/20th (~4.6%) of the size of the BHPTRP rail operations evaluated in the FEIS as the BHPTRP evaluation considered included movement of approximately 80,000 feet of trains per day (7 days a week) while the Parcel 77 Project involves approximately 3,700 feet of trains per day (5 days a week). The BHPTRP rail operations included a noisier operation of loading containers onto rail cars 24 hours per day, while the Parcel 77 Project will primarily load automobiles into enclosed rail cars during the day. The BHPTRP evaluation included movement of trains any time of day, whereas the Parcel 77 Project will primarily move trains overnight, but at a much lower frequency. In addition, the rail infrastructure proposed for the Parcel 77 Project is considerably less than the BHPTRP 322 acres of road, rail, and utility infrastructure.

Outside of the rail operations comparison discussed above, the BHPTRP FEIS evaluated noise generated from construction and operation of an approximately 548-acre site (~90 acres for the Parcel 77 Project) including relocating an ~56 acre roll-on/roll-off container terminal, developing a new ~167-acre container terminal with an ~1.4 million TEU annual capacity. Noise generated from the BHPTRP traffic and container cargo operations would have been significantly higher than the Parcel 77 Project as the Parcel 77 Project will not have any container handling operations, no large yard equipment, significantly less truck and rail traffic, and will be a considerably smaller footprint.

The FEIS stated that traffic on public roads, aircraft, and railroad traffic are exempt from the applicable environmental noise limits. Construction activities during daytime hours (7:00am-9:00pm on weekdays and 9:00am- 9:00pm on the weekend) are also exempt from the noise regulations. However, the FEIS evaluated the noise impacts associated with construction and operation of the BHPTRP.

The FEIS stated that the existing noise environment on the BHTRP site is consistent with that of an industrial marine port. The sources of noise emitted from shipping ports like the Port of Tacoma are varied, but generally include: large trucks, trains, cargo ship engines/generators, 'clanks and bangs' from containers being on/off loaded, horns, and loudspeakers. All of these sources contribute to the overall noise level in and around the BHTRP area; however, traffic noise is the dominant source of noise on the BHTRP site in areas with the potential for outdoor human use.

Noise from railroad operations can be a source of noise complaints and a key environmental concern. The FEIS assessed noise impacts from the proposed railroad improvements using the Federal Railroad Association's model 'CREATE' and their guidance on analyzing railroad noise. Receivers thought to have the most (highest dB(A) impacts were chosen. Receivers located in areas more than 500 feet away from any railroad tracks were not used. The

closest residences to the east of the BHTRP site are well over 1,000 feet (even further to the Parcel 77 Project).

From the FEIS: “Modeling has shown that sound levels from the railroad improvements assumed under the Proposed Actions have the potential to increase sound levels at the identified receivers by a maximum of 3 dB(A), or a level that is barely perceptible to the human ear. The improvements to the railroad system would not be anticipated to cause any modeled receivers to reach levels above the FHWA/WSDOT NAC criteria. Under the Proposed Actions, noise levels associated with railroad activities ranged from 61 dB(A) to 68 dB(A). See Table 3.6-6 for the assumed noise levels at each receptor under the Proposed Actions. The noise levels experienced at receivers resulting from railroad noise are within the same range as the traffic noise levels experienced at the same receivers. Using decibel addition, two sources of noise can be added together for an estimate of the total noise perceived at a given receiver. As indicated in Table 3.6-6, with the combined noise associated with traffic and rail operations, none of the receivers modeled shows a violation of the FHWA/WSDOT NAC’s.”

Table 3.6-6
PERCEIVED COMBINED TRAFFIC AND RAILROAD DB(A) LEVELS
AT MODELED RECEPTORS

Receiver Description	Existing Rail Noise	Existing Traffic Noise	Existing Total dB(A)	2013 Proposed Rail Noise	2013 Proposed Traffic Noise	2013 Total dB(A)
6- E. of Taylor btw Lincoln and E. 11th	57	56.6	60	64	61.9	67
8-Akrema	64	53.3	65	68	65.9	70
9-W. of Taylor btw SR 509 and Lincoln	50	60.8	62	61	62.5	64.5
10-Glacier Entrance	67	61.1	68	68	65.5	70
13-Access Rd. Parking Lot	55	54.1	58	63	65.7	68

Source: Widener & Associates, 2008

The FEIS and the above summary demonstrate that even railroad and traffic noise associated with the much larger BHPTRP proposal (which has over 20x the rail operations) do not violate the FHWA/WSDOT NAC (72 dB(A)) at receptors less than 500 feet away. The Parcel 77 Project has significantly less railroad and traffic noise impacts compared to the BHPTRP proposal evaluated in the FEIS. In addition, the closest residences are well over 1,000 feet away from the Parcel 77 Project.

The FEIS evaluated traffic noise associated with BHPTRP and determined that the five types of abatement measures (management measures, change of alignment, barriers, property acquisition, and noise insulation) were either not reasonable and/or not feasible; therefore, no abatement measures were proposed. The FEIS stated that the traffic noise associated with the BHPTRP would represent a continuation of the existing noise environment and would not be anticipated to result in significant impacts. The FEIS also concluded that no impacts to the onsite railroad noise environment or the offsite residential ambient noise environment are anticipated; therefore, no mitigation was proposed. In summary, no mitigation was proposed for the operational or environmental noise. Based on the FEIS and the fact that the Parcel 77 Project is considerably smaller in size and would

have less potential impacts, no operational or environmental noise abatement/mitigation is warranted for the Parcel 77 Project.

The sources of construction generated noise would be similar to that evaluated in the FEIS except there would be no pile-driving activities and the amount and duration of construction would be significantly less for the Parcel 77 Project as compared to the BHPTRP. Section 3.6.2.1 of the FEIS discusses Construction noise in more detail. The BHPTRP FEIS noise evaluation and study is applicable and should be incorporated by reference into the Parcel 77 Project SEPA.

The Parcel 77 Project could implement the following construction noise mitigation measures discussed in the FEIS:

- The Port does not plan to perform construction activities outside of the time window set forth by the City of Tacoma's Noise Ordinance, (#27673, Chapter 8.112.080) which limits work between 9pm and 7am on weekdays; and between 9pm and 9am on Saturdays, Sundays, and legal holidays, however, should there be a need for after-hours construction, a variance would be obtained in accordance with local and state regulations.
- Operating all motorized equipment used in construction and demolition with a muffler.
- Utilizing the best available noise abatement technology on construction equipment.
- Minimize construction noise by turning off engines when not in use.
- Back up alarms can produce some objectionable sound, although they are exempt from the Washington State noise ordinance. It is recommended that vehicles drive forward as much as possible to avoid the use of the back-up alarm.
- Substitute hydraulic or electric models for impact tools such as rock drills or jackhammers, when feasible.

In summary, the BHPTRP FEIS noise evaluation and study is applicable and should be incorporated by reference into the Parcel 77 Project SEPA. Only construction noise mitigation measures were included in the BHPTRP FEIS as noise was either not above applicable criteria or noise abatement/mitigation measures were not reasonable and/or not feasible. The Parcel 77 Project is considerably smaller in geographic size, type and scale of operations, traffic generated, and size/number of rail operations; therefore, no noise mitigation measures are warranted other than the above construction noise mitigation measures.