



UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY
REGION 10

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PUGET SOUND NO-DISCHARGE ZONE RESPONSE TO COMMENTS

Comment 1 (Need for a No-Discharge Zone): Numerous commenters submitted comments supporting the need for a Puget Sound no-discharge zone. These commenters included individuals, environmental groups, shellfish growers, and local governmental entities. Comments focused on the need to protect water quality, human health, endangered species, marine life, and the overall resources of Puget Sound. Commenters also noted that Puget Sound is already suffering from a variety of pollution-related impacts and characterized a no-discharge zone as a necessary, common sense protection. Others expressed concerns about the introduction of bacteria, nutrients, and pathogens into Puget Sound waters as well as the potential for shellfish contamination. In addition, commenters stated that on-board sanitation systems are insufficient to protect water quality and human health, and that a no-discharge zone is needed to protect tourism and the economic activities in Puget Sound that rely on clean water.

Response 1: EPA appreciates the comments and recognizes the issues and concerns raised by these commenters. EPA notes, however, that Ecology's petition was submitted under Section 312(f)(3) of the Clean Water Act (CWA), which allows Washington to establish a no-discharge zone for vessel sewage if the State determines that the protection and enhancement of the quality of some or all of the waters within the State require greater environmental protection and EPA determines that adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels are reasonably available within those waters. As such, although EPA confirms that the State has submitted a certification of need with its application before processing it, the CWA limits EPA's role in this action to evaluating the reasonable availability of pumpout facilities. EPA acknowledges that the commenters raise issues also identified in Washington's certification of need, however those issues are beyond the scope of EPA's review.

Comment 2 (Need for a No-Discharge Zone): EPA also received numerous comments opposing the no-discharge zone on the basis that there is no need for greater protection, and questioning Washington's certificate of need. Commenters included individual boaters, recreational boating associations, tugboat, towboat and barge industries, small passenger cruise lines, large commercial operators and cruise lines, and vessel associations. These commenters stated that Ecology's need determination is based on flawed modeling, which overstated the volume and composition of vessel discharges, and that there is no nexus between water quality impairments and discharges of treated vessel sewage from approved marine sanitation devices. Commenters similarly pointed to their use of approved marine sanitation devices and advanced water treatment systems as sufficient to protect water quality, and as evidence that a no-discharge zone is unnecessary. One commenter cited a King County report to note that there is no identified benefit of channeling wastewater from cruise ships to the regional conveyance and treatment systems. Commenters also identified several other sources of pollution and water quality impairment in Puget Sound – including failed septic systems, illegal spills, agricultural and industrial run-off, and storm-event discharges from wastewater treatment plants – and stated that these sources dwarf any sewage discharges from vessels, and Ecology and EPA should

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therefore direct their efforts elsewhere. For similar reasons, commenters state that the no-discharge zone will not achieve a significant or measurable improvement in water quality, is regulatory overkill or over-regulation, and should not go forward.

Response 2: EPA appreciates the comments and recognizes the issues and concerns raised by these commenters. As noted above, EPA's determination is limited to evaluating the reasonable availability of pumpout facilities, and does not include an analysis of Washington's certification of need or the water quality impacts of any particular pollutant or source. With regard to comments on the use of marine sanitation devices, EPA further notes that Section 312(f) of the CWA specifically contemplates the imposition of a ban on the discharge of treated or untreated sewage, notwithstanding any other requirements to control or limit pollutants in those discharges. Similarly, Section 312(f)(3) of the CWA does not require that the no-discharge zone be a total solution to all water pollution problems in the proposed area, or that the State demonstrate that any particular vessels are a significant source of pollution. Moreover, because EPA's authority under Section 312(f)(3) is limited to evaluating the reasonable availability of pumpout facilities, it cannot base its determination on whether vessel sewage is comparable in quantity or impact to other sources of pollution in Puget Sound. With regard to comments stating that EPA's action constitutes regulatory overkill or over-regulation, EPA notes that Congress has already determined in the Clean Water Act that a complete prohibition on vessel sewage discharges is appropriate where the stated conditions are met. EPA's role in this action is simply to determine if one of those conditions – whether adequate pumpout facilities are reasonably available – has been met.

Comment 3 (Untreated Sewage): Several commenters that support a Puget Sound no-discharge zone also expressed an interest in ensuring that raw or untreated sewage is not discharged into Puget Sound. Many commenters similarly expressed concerns regarding the potential human health and environmental impacts from raw or untreated sewage discharges, and questioned why a prohibition on such discharges from vessels is not already in place. Commenters that oppose the no-discharge zone cited the existing prohibition on discharging untreated sewage within three miles of shore as sufficient to protect water quality, and as evidence that a no-discharge zone is unnecessary.

Response 3: Although not directly related to EPA's determination on pumpouts, EPA would like to address the water quality concerns raised by clarifying that federal law already prohibits the discharge of untreated sewage from vessels within three miles of shore. Thus, discharges of untreated or raw sewage are currently prohibited anywhere in Puget Sound that is within three miles of shore. As authorized by the Clean Water Act, a no-discharge zone expands the existing prohibition such that all discharges of vessel sewage – *whether treated or untreated* – are prohibited in the designated area. EPA disagrees with comments stating that the existing prohibition means a no-discharge zone is unnecessary. Section 312(f) of the CWA specifically contemplates the establishment of no-discharge zones, notwithstanding the existing federal ban on discharges of untreated sewage within three miles of shore.

Comment 4 (Delayed Implementation/Phase-In): EPA received a number of comments related to the five-year delayed implementation or phase-in described in Ecology's petition for certain commercial vessels. Several commenters felt that five years was too long, extremely

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generous or lenient, and some asked that EPA shorten the period. Others stated that the five-year period was more than adequate to allow operators to retrofit their vessels and appreciated that additional time for compliance would be provided. In addition, several commenters requested that recreational boaters be afforded the same five-year delayed implementation as commercial vessels, especially if a Sound-wide no-discharge zone goes forward, and expressed concerns regarding compliance if no phase-in is provided. Another commenter stated that the delayed implementation scheme offers no tangible relief from the financial hardships that this regulation would impose on towing vessel operators.

Response 4: As noted above, EPA's authority under CWA Section 312(f)(3) is limited to evaluating the reasonable availability of pumpout facilities. EPA has conducted that analysis without consideration of any implementation or enforcement strategy contemplated by the State. Once EPA issues a final affirmative determination, it is up to the petitioning State, in this case Washington, to determine how to implement and enforce the no-discharge zone. Concerns regarding such matters should be directed to the State.

Although outside EPA's analysis regarding the reasonable availability of pumpout facilities, EPA notes that the State's process and evaluation sought to address the concerns raised by these commenters. In particular, the State determined that a five-year delayed implementation is appropriate for certain commercial vessel groups (the petition identifies tug boats, commercial fishing vessels, small cruise vessels, and NOAA research vessels) to accommodate the unique challenges associated with retrofitting these types of vessels, such as requiring an engineering design and formal approval for safety. With regard to compliance concerns, EPA notes that Washington's petition estimates that only 5% of recreational boaters will need to install holding tanks to achieve compliance, and that implementation efforts will be a continually evolving process that includes a comprehensive and educational outreach program. Concerns regarding the application of the phase-in beyond the commercial vessels identified relate to State implementation and enforcement and are beyond the scope of EPA's review.

Comment 5 (Delayed Implementation/Phase-In): Certain commenters stated that Ecology may not use the five-year delayed implementation to circumvent the requirements for adequate pumpout facilities at the time a no-discharge zone is established. Commenters similarly stated that EPA may not consider planned or potential future pumpout facilities when making its Section 312(f)(3) determination.

Response 5: EPA's final determination does not consider proposed or future pumpout facilities and looks only at currently available pumpouts. EPA's preliminary affirmative determination similarly made clear that proposed commercial pumpouts for Seattle and Bellingham were not included in EPA's analysis. Moreover, as stated in the petition, Ecology plans to provide a five-year delayed implementation for certain commercial vessels to allow operators time to address unique retrofitting challenges and costs. Ecology's petition does not link the delayed implementation to the need to develop additional pumpout facilities. EPA therefore disagrees that Ecology's provision for delayed implementation somehow suggests that adequate pumpout facilities are not currently available or otherwise circumvents statutory requirements regarding pumpout availability.

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Comment 6 (No-Discharge Zone Boundaries): Several comments addressed the boundaries of the no-discharge zone set forth in the State's petition. Some commenters stated that the boundaries are too narrow and should be extended westward to the mouth of the Strait of Juan de Fuca to provide greater protection. Other commenters, including several industry commenters, expressed opposition to the current boundaries as too broad, while expressing support for a more targeted no-discharge zone or series of zones focused on particular areas within Puget Sound. One commenter noted that the boundary is easy for boaters to understand and that enforcement of piecemeal zones would be difficult.

Response 6: Under CWA Section 312(f)(3), so long as EPA determines that adequate pump outs are reasonably available, the determination regarding those State waters to which a no-discharge zone will apply lies with the State. Here, Washington has determined that the no-discharge zone will apply to "the marine waters of Washington State inward from the line between New Dungeness Lighthouse and the Discovery Island Lighthouse to the Canadian border, and fresh waters of Lake Washington, Lake Union and connecting waters between and to Puget Sound." EPA's role under CWA Section 312(f)(3) is limited to evaluating the reasonable availability of pumpout facilities, and does not include expanding or restricting the boundaries determined by a State.

Comment 7 (Cost and Feasibility): Numerous commenters, including recreational boaters as well as commercial operators and vessel associations, articulated concerns over the cost to retrofit vessels in order to comply with the no-discharge zone. The costs include both the initial purchase and installation costs, as well as ongoing costs of operating a holding tank. Similarly, many commenters expressed concern regarding the need to replace installed type I and type II marine sanitation devices with holding tanks. For recreational boats, several commenters cited the need to spend thousands of dollars to install a holding tank and pumpout system in their existing boats. Commercial commenters cited costs ranging anywhere from \$161,500 to \$750,000, depending on the vessel type, to retrofit such vessels as oceangoing towing vessels, articulated barges, and small passenger cruise vessels. Large cruise ship operators noted their investment of more than \$150 million in advanced waste water treatment systems, which they would be forced to disable at great cost if Puget Sound becomes a no-discharge zone.

Commercial commenters were further concerned with the financial burden of ongoing costs, such as paying for pumpout services and the operating costs associated with the time needed to pump out. Commenters similarly raised concerns that these costs would fall disproportionately on small working vessels like fishing boats and tug boats, and that the no-discharge zone would impose unnecessary financial hardships on the State's maritime industry. For instance, two commenters suggested that reduced passenger capacity on small passenger vessels, either due to stability issues or reduced usable space onboard the vessel, would detrimentally impact the vessel's revenue-generating capacity.

In addition to discussions of cost, commenters raised practical considerations that make retrofitting certain vessels challenging or infeasible. More specifically, a few commenters indicated that some of their vessels may not have the physical space to install a holding tank of adequate size, or that there was no way to reconfigure existing sewage, fuel, and ballast systems without compromising vessel stability. Additionally, some vessels generate large volumes of

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sewage which would need to be retained onboard in a holding tank as opposed to continuously discharged, which commenters said could potentially cause vessel stability concerns.

Response 7: As noted above, EPA's authority under Section 312(f)(3) is limited to evaluating the reasonable availability of safe and sanitary pump-out facilities; neither the Clean Water Act nor EPA's implementing regulations contemplate or require that EPA consider the cost of retrofitting vessels, the practical considerations related to retrofitting vessels to achieve compliance, or the cost of using pump-out facilities. This approach is consistent with the purpose and structure of CWA 312(f)(3), which is limited to lifting, for the sole purpose of establishing a no-discharge zone, Section 312(f)'s general preemption of States from regulating the use of MSDs, but only in areas where safe and sanitary pump-out facilities are available to serve the no-discharge zone's vessel population.

Nothing in Section 312, however, prevents states from considering such costs when deciding whether and how to establish an NDZ. In addition, once the State decides to establish an NDZ and EPA issues a final affirmative determination regarding pump out facilities, it is up to the petitioning State, in this case Washington, to determine how to implement and enforce the NDZ. EPA acknowledges that certain vessel operators may face added costs, which in some cases may be significant. EPA notes that the State has also acknowledged this and provided a five-year delayed implementation for tug boats, commercial fishing vessels, small commercial passenger vessels, and National Oceanic and Atmospheric Administration (NOAA) research and survey vessels to address "unique challenges associated with retrofitting these types of vessels, such as requiring engineered designs with extra safety considerations and in some cases, significant costs."

Even assuming for the sake of argument that EPA must consider cost under CWA Section 312(f)(3), commenters have not provided sufficient information for EPA to evaluate the overall impacts or implications of such costs. For example, where commercial commenters did provide cost estimates, they did not provide the information typically necessary to analyze whether such costs are unreasonable, for example, information on industry and firm revenues, assets, and operating budgets; or expected changes in cost of operation, price, or return on investment. EPA also would need more detailed information from the recreational vessel community pertaining to the economic impacts on recreational vessels to place the bare individual vessel expense figures into context and determine impacts on operations of the recreational vessel community as a whole. Examples would include vessel prices, operational costs over the life of vessels, voyage patterns etc.

Comment 8 (Enforcement): Several commenters expressed a need for active enforcement of the no-discharge zone to ensure protection for Puget Sound resources.

Response 8: EPA agrees that enforcement is one component of ensuring an effective no-discharge zone. As noted above, however, EPA's action is limited to evaluating the reasonable availability of pumpout facilities; thus, issues regarding enforcement are outside the scope of EPA's action.

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Comment 9 (EPA Delay): One commenter stated that because EPA took 19 more days to render its preliminary determination than the 90 days prescribed by CWA Section 312(f)(3), EPA's preliminary determination is invalid and should be withdrawn.

Response 9: Neither the Clean Water Act nor any other law provides a basis for the commenter's view that delay beyond the 90-day statutory deadline renders the Agency's preliminary affirmative determination invalid. EPA also notes that it extended the public comment period in response to this same commenter's request for an extension of time to submit comments. Notably, this same commenter sought a 45-day extension for the public comment period; EPA granted a 15-day extension. In addition, this commenter has also specifically requested that EPA withhold any final determination on the adequacy of pumpouts until its separate appeal of Ecology's Certificate of Need before the Washington Pollution Control Hearings Board is resolved. It is thus clear that the commenter has not been harmed by EPA's timeframe for issuing the initial determination and has no valid objection to any delay on EPA's part.

Comment 10 (Clean Vessel Act): Two commenters cited 50 CFR 85.11 to state that EPA may not consider mobile pumpout facilities when making its adequacy determination under CWA Section 312(f)(3). According to these commenters, the cited regulation refers to pumpout "stations," which implies they must be stationary.

Response 10: EPA disagrees that the cited regulation precludes consideration of mobile pumpouts for purposes of EPA's determination under Section 312(f)(3) of the Clean Water Act. The regulation cited appears in 50 CFR Part 85, which was promulgated by the U.S. Fish and Wildlife Service and establishes requirements for participating in the Clean Vessel Act Grant Program under Section 5604 of the Clean Vessel Act. While these regulations may inform the type of facilities eligible for Clean Vessel Act grant funds, they do not require EPA to ignore available mobile pumpouts when making its separate determination of pumpout availability under Clean Water Act Section 312(f)(3). Inclusion of mobile pumpouts is consistent with EPA practice in numerous other CWA Section 312(f)(3) determinations throughout the U.S. including in Connecticut, Florida, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Virginia, as well as the multi-state no-discharge zones in Kentucky and Tennessee (Dale Hollow Lake) and Utah and Arizona (Lake Powell).

Comment 11 (Clean Vessel Act): Some commenters stated that Clean Vessel Act restrictions prohibit commercial vessels from using recreational pumpouts completed using CVA grant funds. According to the commenters, because funds for this program are derived from taxes paid by fishermen and recreational boaters, their use is restricted to activities that benefit recreational boaters. In addition, because commercial vessels cannot use recreational pumpout facilities developed using CVA funding, such facilities cannot count toward EPA's determination regarding availability of pumpout facilities for commercial vessels.

Response 11: EPA has been unable to identify any express provision in the Clean Vessel Act or implementing regulations at 50 CFR Part 85 that restricts the use of CVA-funded pumpout facilities to recreational vessels only. In addition, agency staff that EPA contacted at both the U.S. Fish and Wildlife Service and Washington State Parks were unaware of any regulation,

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term or condition of a grant that would prohibit a commercial vessel from using a CVA-funded pumpout to empty a holding tank. In any event, EPA's analysis and final determination for commercial vessels is based on the availability of mobile pumpout services and does not specifically rely on recreational facilities for a conclusion of availability.

Comment 12 (Regulatory Flexibility Act): Certain commenters stated that EPA's determination under CWA Section 312(f)(3) constitutes a "legislative rule of general applicability" and is therefore subject to the Regulatory Flexibility Act (RFA). According to these commenters, EPA should have conducted an RFA analysis of its proposed action, in accordance with Executive Orders 12866, 13272, and 13563.

Response 12: EPA disagrees that the determination under CWA Section 312(f)(3) regarding the reasonable availability of pumpout facilities is subject to the Regulatory Flexibility Act or the associated Executive Orders. The RFA applies specifically to any rule subject to notice and comment rulemaking under section 553(b) of the Administrative Procedures Act (APA) or any other law. 5 U.S.C. §§ 603, 604. Unlike CWA Section 312(f)(4), Section 312(f)(3) does not require the Agency to act through notice and comment rulemaking. Nor does EPA's determination regarding pumpouts require notice and comment under the APA; EPA's pumpout determination under Section 312(f)(3) is the Agency's final disposition of the State's application for such a determination. It is therefore an "adjudication" under the APA, not a "rule" for which a notice of proposed rulemaking is required. *See generally* 5 U.S.C. § 551(4) – (7) and § 553. The notice and comment opportunity that EPA provided on its preliminary affirmative determination was conducted voluntarily by EPA to gain input from the public and not in response to any statutory mandate.

Comment 13 (EPA Review of Certificate of Need): One commenter (American Waterways Operators, or AWO) stated that EPA must play a role in evaluating the integrity of Ecology's certification of need and that EPA should not render a final determination on adequacy of pumpout capacity since, in their view, Ecology's certification is not based in fact. Another commenter stated that EPA must assure that the proposed no-discharge zone will in fact provide the level of protection that Ecology implies, and included several questions that EPA should address regarding the Ecology's conclusions in the certificate of need.

Response 13: The petition was submitted under CWA Section 312(f)(3), which allows Washington to establish a no-discharge zone for vessel sewage if the State determines that the protection and enhancement of the quality of some or all of the waters within the State require greater environmental protection and EPA determines that adequate facilities for the safe and sanitary removal and treatment of sewage from all vessels are reasonably available within those waters. EPA's regulations at 40 CFR 140.4(a)(1) require a petitioning State to submit a certification "that the protection and enhancement of the waters described in the petition require greater environmental protection than the applicable Federal standard." This provision ensures that the statutory requirement for State certification has been met. EPA's role under CWA Section 312(f)(3), however, remains limited to evaluating the reasonable availability of pumpout facilities. The CWA does not require or authorize EPA to review a State's findings or substitute its judgment for that of a petitioning State regarding the need for greater environmental protection.

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EPA notes that AWO, in seeking a stay of Ecology's Certificate of Need before Washington's Pollution Control Hearings Board, appears to have acknowledged as much, stating: "Other than the Board, no agency or body has authority to address [Ecology's] errors and inadequacies. EPA lacks this authority. EPA is only authorized to determine if adequate pumpout facilities exist and will provide no substantive review of the Certificate of Need." This commenter also went on to state that, "Under section 312(f)(3) of the CWA, EPA review of Ecology's certification is limited to confirming that adequate pump-out facilities exist in Washington and confirming that Ecology included the specified application materials." *American Waterways Operators et al v. State of Washington, Department of Ecology*, PCHB No. 16-093, Appellants Motion for Stay at 2, 14 (emphasis added).

Comment 14 (Request to Withhold Action): AWO also requested that EPA withhold any final determination on the adequacy of pumpouts until the separate State appeal of Ecology's Certificate of Need is resolved. That appeal was filed with Washington's Pollution Control Hearings Board and dismissed for lack of jurisdiction. The dismissal has been appealed to Thurston County Superior Court.

Response 14: EPA does not agree that it must withhold action on the separate determination regarding the reasonable availability of pumpout facilities. Doing so would effectively result in a stay of the effectiveness of Ecology's Certificate of Need, relief which the commenter has not successfully obtained in its State appeal. EPA may therefore assume it has a valid petition before it and proceed accordingly.

Comment 15 (Insufficient Information): Certain commenters stated that Ecology's petition lacks information on pumpout facilities that is required by EPA's regulations and the petition should therefore be rejected. Commenters stated that required information is missing from Table 9 and Figure 13 in Ecology's petition, including hours of operation and draught limitations as required by 40 CFR 140.4(a)(4) and (5). One commenter concluded that this information is not provided because the facilities identified in Table 9 and Figure 13 are not bona fide pumpout stations that can provide service and should not have been cited in Ecology's petition. The same commenter noted that Table 8 of Ecology's petition identifies mobile services, but none have the capacity or equipment to service a large commercial tug. Another commenter stated that Ecology's map on page 56 of the petition is disingenuous for including pumpout facilities that are for exclusive use by military or ferry operations. The commenter also stated that the map includes waterborne mobile pumpout operators whose capacity is limited to less than 450 gallons and are thus useless for most commercial operators. Finally, the commenter noted that the map neglects to establish locations for pumper trucks, and that Ecology should be required to map them visually.

Response 15: EPA acknowledges that specific information on hours of operation and draught requirements does not appear on Table 9 and Figure 13 (although Appendix A of Ecology's petition includes information on hours of operation, maximum vessel length, and minimum depth at low tide for each pumpout facility). EPA disagrees, however, that the lack of the cited information calls for rejection of Ecology's petition or renders EPA's determination invalid. *See e.g., American Farm Lines v. Black Ball Freight Service*, 397 U.S. 532, 538 (rejecting argument

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that agency action was invalid where rules requiring that certain information be included in applications had not been followed). As discussed in more detail below and in EPA's decision document, EPA's final determination is based on the availability of mobile pumpout services throughout Puget Sound. In particular, EPA has determined that the mobile pumpout companies identified will travel to wherever a vessel is located and have a geographic scope that includes the entire Puget Sound region. As such, mapping the specific locations of these companies would not add to EPA's analysis or provide any further information for the regulated community. Similarly, because the pumper trucks are able to service vessels where they are moored, (i.e., at a dock that meets the vessel's draft and berthing requirements), providing specific dock and draft information by location is not necessary. Regardless of no-discharge zone designation, vessels are already able to determine which docks they are able to access. Finally, EPA has independently verified information regarding pumpout services identified in Ecology's materials, and has no evidence that any of the facilities included are not bona fide pumpout stations.

In addition, EPA notes that inclusion of facilities in Table 9 that service only ferries or military vessels provides useful information in that such vessels will also need to access pumpout facilities. With regard to comments that the facilities listed in the referenced tables and maps do not have sufficient pumpout capacity for the commenters' needs, please see EPA's response to Comments 24 and 25.

Comment 16 (Petition Revision): One commenter stated that Ecology's supplemental information on commercial pumpouts amounts to a "substantive revision of the initial petition without notice to the regulated community."

Response 16: EPA issued a preliminary affirmative determination for public comment on November 7, 2016, which was based on Ecology's July 21, 2016 petition and October 14, 2016 supplement. EPA's preliminary determination specifically identified Ecology's supplemental submission as a source of information and provided the public with a direct link to all of Ecology's supporting information. In addition, EPA extended the comment period for 15 days in response to this commenter's request for additional time to review the supplemental information. As such, all of Ecology's information that EPA relied on was fully available to the regulated community for review and comment in the context of EPA's decision. EPA further notes that CWA Section 312(f)(3) does not require a State to provide its no-discharge zone petition to the public for review before submitting it to EPA. To the extent the commenter has concerns regarding Ecology's process for developing the petition and supplemental information under any applicable State law, those concerns should be directed to the State.

Comment 17 (Immediate Effect): Several commenters expressed concerns regarding compliance if the no-discharge zone takes immediate effect.

Response 17: EPA acknowledges and appreciates the comments. Under CWA 312(f)(3), once EPA issues a final affirmative determination regarding adequacy of pumpout facilities, the discretion to designate and subsequent responsibility to implement and enforce a prohibition on all discharges rests with the petitioning State, in this case Washington, to determine how to implement and enforce the no-discharge zone. Accordingly, when and how the no-discharge

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zone becomes effective is a matter of State implementation and the steps Washington takes to formalize the designation under State law.

Comment 18 (Navy): The U.S. Navy (Region Northwest) submitted comments recommending that the no-discharge zone determination make explicit that its application to vessels of the Armed Forces is subject to Clean Water Act Section 312(d). The Navy pointed out that Ecology's petition currently does not distinguish or define vessels of the Armed Forces and points out that CWA Section 312(a)(14) recognizes military vessels as a class of vessels distinct from commercial vessels for purposes of a no-discharge zone. The Navy also noted that, pursuant to Section 312(d), the Secretary of Defense has promulgated regulations that exempt, at certain times and under certain circumstances, some vessels from the CWA's sewage discharge requirements when compliance "would excessively and unreasonably detract from their military characteristics, effectiveness, or safety to not be in the interest of national security." This regulation requires vessels of the Armed Forces to limit discharge of sewage into specified waters, including CWA no-discharge zones, to the maximum extent practicable without endangering the health, safety, or welfare of the crew or other personnel aboard. The Navy noted that Commanding Officers adhere to this and use pumpout facilities before departure from port or attempt to limit discharges to permissible areas, but there may nevertheless be occasional need for some vessels to discharge within the no-discharge zone.

Response 18: EPA appreciates the Navy's comments and recognizes that CWA Sections 312(a)(14) and (d) apply to vessels of the Armed Forces, as separate and distinct from commercial vessels. EPA also acknowledges the operational considerations the Navy describes and the related regulation promulgated pursuant to CWA Section 312(d). To the extent the Navy seeks any revision to the petition to reflect these issues, EPA notes that the State's petition was submitted under CWA Section 312(f)(3), under which EPA's role is limited to evaluating the reasonable availability of pumpout facilities. Once EPA issues a final affirmative determination, it is up to Washington to determine how to implement and enforce the no-discharge zone. EPA encourages the Navy to work with Ecology as development of the implementation strategy moves forward to ensure that these concerns and issues are addressed.

Comment 19 (Coast Guard): The U.S. Coast Guard submitted comments stating general support for the protection of Puget Sound and its intent that Commanding Officers would limit discharges to the maximum extent possible. The Coast Guard also expressed concerns, however, regarding potential impacts to emergency operations – which often require continuous presence on-scene and occur at all hours of the day, on weekends and holidays, and during adverse weather conditions – during which the use of shore-based or waterborne pumpout facilities will not always be possible. Given these circumstances, and because of the geographic scope of the no-discharge zone, the use of shore-based or waterborne pumpout facilities will not always be possible. The Coast Guard similarly expressed concerns that not all Coast Guard vessels will have the ability to comply with the proposed requirements during extended mission hours without endangering the health, safety, or welfare of the crew or other personnel aboard, and noted the potential jeopardy to such emergency operations as Search and Rescue, Maritime Security and National Security missions. The Coast Guard thus requested that any EPA determination regarding pumpout facilities exclude emergency Coast Guard operations from its applicability. The Coast Guard further noted that CWA Section 312(f)(4) may provide more

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flexibility for such an exclusion. The Coast Guard also raised questions regarding enforcement as it relates to the five-year delayed implementation for certain commercial vessels and the State's overall designation process. The Coast Guard also expressed support for the Navy's comments, described above in Comment 18, regarding the CWA Section 312 definition of military vessels.

Response 19: EPA appreciates the Coast Guard's comments and acknowledges the operational challenges and concerns that the Coast Guard describes regarding emergency operations. These concerns relate directly to implementation and enforcement of the no-discharge zone, which is beyond the scope of EPA's CWA Section 312(f)(3) review, in which EPA's role is limited to evaluating the reasonable availability of pumpout facilities. Once EPA issues a final affirmative determination, it is at the discretion of the state of Washington to determine whether and when to prohibit all discharges (i.e., designate a no-discharge zone) and an appropriate process for such a prohibition under state law, as well as the State's responsibility to determine how to implement and enforce the no-discharge zone. EPA therefore encourages the Coast Guard to work with Ecology as the implementation strategy moves forward to ensure that the Coast Guard's operational concerns and issues are addressed. Questions regarding enforcement of the planned five-year delayed implementation and the overall designation process should similarly be directed to the State.

To the extent the Coast Guard suggests that Section 312(f)(4) may provide more flexibility to establish an exclusion for Coast Guard operations, EPA notes that the Clean Water Act gives the petitioning State the option of which procedure to pursue. Here, Washington has opted to establish a no-discharge zone under Section 312(f)(3). EPA further notes that there are nearly 90 no-discharge zones throughout the United States, the vast majority of which were established under CWA Section 312(f)(3), and a number that cover large geographic areas and include waters where the Coast Guard operates. To the extent similar operational concerns may arise in those areas, EPA is unaware of any specific exclusion for Coast Guard emergency operations and none issued in an EPA Section 312(f)(3) determination.

Comment 20 (Pumpout Adequacy - General): EPA received numerous general comments that either supported or opposed EPA's preliminary affirmative determination and specific findings regarding pumpouts - both for recreational and commercial vessels - but without providing additional elaboration or detail. Several commenters expressed general support for EPA's determination that recreational vessels have at least one pumpout facility per 171 vessels, and commercial vessels have at least one pumpout per 11 vessels, without providing additional detail.

Response 20: EPA appreciates these comments and directs the commenters to the specific information on pumpout facilities provided in EPA's final determination and the responses to comments below.

Comment 21 (Vessel Population): One commenter questioned Ecology's estimate of the number of commercial vessels operating in Puget Sound, noting that the Starcrest 2007 study relied on by Ecology was updated in 2013, with the vessel estimate changing from 678 to 709. The commenter also questioned the study methodology given that their own company and

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vessels (6) and those of a competitor were not included. The commenter therefore concluded that both the 2005 and 2013 numbers should be higher, but without providing specifics on the number of additional vessels that are alleged to be missing. The commenter also took issue with EPA's approach in its preliminary determination of reducing the number of relevant vessels from 678 to approximately 600. The commenter appeared to acknowledge that 690 vessels represents an approximate low end count.

Response 21: Even assuming the higher count of 709 from the 2013 study, EPA does not agree that the difference in numbers between the 2007 and 2013 studies (678 versus 709) is material for purposes of the current determination. EPA also disagrees that it was inappropriate to reduce the number of vessels from 678 to 600 in its preliminary determination. As explained there, the WSDOT Ferries, military vessels, and Victoria Clipper vessels were removed from the count because they all have dedicated stationary pumpouts for their own use. For consistency of the analysis, therefore, neither these 78 vessels nor their 14 dedicated stationary pumpouts (e.g., 14 of the 16 facilities on Table 9 of Ecology's petition) were included in EPA's analysis of available pumpouts. Following that same approach and starting with the Starcrest 2013 estimate of 709 and appropriately reducing by 78, the starting point for analysis would be 631 vessels (as opposed to 600 in EPA's preliminary determination). When divided by 56 mobile pumpouts the ratio of pumpouts to commercial vessels is still approximately 11:1. Thus, the difference of 31 vessels does not make a measurable difference in terms of EPA's conclusions regarding the ratio of commercial vessels to available pumpout facilities. The commenter's suggestion that an unidentified number of additional existing vessels may have been excluded does not provide sufficiently specific information for EPA to provide a response.

Comment 22 (Commercial Vessel Population with Holding Tanks): Several comments from the shipping industry disagreed with Ecology's assumption in the petition that large oceangoing commercial vessels have sufficient holding tanks to preclude the need to discharge treated sewage in Puget Sound. They contended that based on their 2012 global survey of 639 large commercial vessels of all types, 218 or over 34% of those vessels responding reported no holding tank capacity, while an additional substantial number of vessels reported holding tank capacity of less than one day. They suggested that such vessels are a significant number of vessels in the global fleet. The commenters suggested that a survey of vessels currently calling in Puget Sound be conducted in order to provide a realistic estimate of vessels which do have sufficient holding capacity. Another commenter referenced work done by Ecology, citing that 93% of recreational and commercial vessels in the Puget Sound already have holding tanks.

Response 22: EPA's review is based on information provided by the State. Ecology's petition includes a vessel population estimate based on the local study conducted by the Puget Sound Maritime Air Forum (Starcrest, 2007), which concluded that there were 2,937 entries of large oceangoing vessels into Puget Sound in 2005, and an estimated 678 other commercial vessels that operate mostly within Puget Sound (e.g., escort tugs) or have Puget Sound as their home port (e.g., the fleet of fishing vessels that travels to Alaska each year). Ecology's Petition also concluded that the large, oceangoing transient commercial vessels that are only in Puget Sound for a short period of time (e.g., large cruise ships, cargo ships and tankers) have large enough holding tanks so that they can hold their waste during the time they are in Puget Sound. That conclusion is confirmed by the information gathering effort conducted in 2013 by Herrera

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Environmental Consultants and Veda Environmental for Ecology, entitled *Phase 2 Commercial Vessel Sewage Management and Pumpout: Puget Sound No Discharge Zone for Vessel Sewage*. The report was produced from a questionnaire and phone conversations with commercial vessel entities and stated that cargo ship and tankers, under standard operating conditions, treat and hold sewage until it can be discharged offshore beyond three miles. The report also concluded that that large cruise ships have the capacity to hold their discharges the entire time that they are in Puget Sound. Evidence of this capability was presented with the information that no large cruise ships requested direct discharge permits to Puget Sound during two seasons prior to the Herrera study. (Ecology provides an annual report of cruise ship Discharge Status on its website at http://www.ecy.wa.gov/programs/wq/wastewater/cruise_mou/previouscruiseseasons.html). Finally, the commenter provided no information to suggest that the results of the world survey are representative of vessels in Puget Sound, and EPA is appropriately relying on the information developed by the State.

Comment 23 (Insufficient Commercial Pumpout Facilities): EPA received numerous comments stating that there are insufficient pumpout facilities for commercial vessels throughout Puget Sound. Commenters included tugboat, towboat, and barge industries, small passenger cruise lines, large commercial vessel companies, and vessel associations. Commenters cited several reasons, including the lack of stationary and mobile pumpout facilities, insufficient geographic distribution throughout Puget Sound, lack of pumpout capacity, and lack of accessibility. These commenters therefore stated that the no-discharge zone does not meet the adequate pumpout facilities requirement of CWA Section 312(f)(3) for commercial vessels. The respective issues are addressed in more detail below.

Response 23: EPA acknowledges these concerns, and has responded to comments regarding insufficient commercial pumpout facilities in responses to Comments 24-27, below.

Comment 24 (Stationary Pumpout Facilities): Many commenters stated that of the 16 commercial vessel stationary pumpouts listed in Table 9 of Ecology's petition and Table 5 of the Supplemental Information, 14 are not available for public use and are instead reserved for specific vessels, such as Washington State ferries, the U.S. Navy, the Victoria Clipper, the Washington Department of Corrections, and the Alaska Marine Highway ferries. According to the comments, that leaves only two commercial shore-based pumpouts in the Port of Bellingham, over 70 and 100 miles north of Seattle and Tacoma respectively. These commenters stated that this location is too far from the busiest areas of commercial maritime activity in Puget Sound to be feasible. Commenters further noted that pumpout capacity is inadequate for large commercial vessels in Bellingham because of limited dock length (100') and draught (11') and berthing restrictions at the Bellingham facilities, which render them unusable for some commercial vessels. Certain commenters also stated that, in fact, only one of the Bellingham facilities is currently operational. Commenters also noted that there are no pumpouts for ocean going tugs, and that there is very limited capacity for vessels greater than 58' or 65' on up, particularly in the Seattle area.

With regard to other shore-based or stationary pumpout facilities, commenters noted that virtually all non-commercial pumpout stations are designed to service recreational vessels or houseboats, and most are located at marinas that cannot service towing vessels due to their dock

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sizes and configurations, pumpout capacities and flow rates, and hours of operation. Commenters also stated that existing pumpout boats also serve the recreational vessel community and do not have the volumetric capacity or the numeric or geographic reach necessary to assist Puget Sound's commercial working vessels.

Response 24: EPA acknowledges that of the 16 facilities in Table 9 of Ecology's petition, there are currently two functioning shore-based stationary pumpout facilities in Puget Sound for use by the general community of commercial vessels. Indeed, EPA's preliminary affirmative determination specifically noted that the State "identified eight stationary pumpouts dedicated to WSDOT ferries, three dedicated to U.S. Navy vessels, one dedicated to the Victoria Clipper vessels and one for the McNeil Island Department of Corrections vessels. The Port of Bellingham cruise terminal area also has three stationary pumpouts, one of which is used for Alaska Marine Highway vessels and two other pumpouts that can serve other commercial vessels." Based on additional information that EPA obtained to inform our final determination and these responses to comments, the two facilities currently operational and available to service other commercial vessels are located in Squalicum Harbor. One can accommodate commercial and recreational vessels up to 70 feet in length, while the other can service smaller commercial and recreational vessels. With regard to any capacity concerns, EPA has confirmed that each of these stationary pumpouts have an unlimited capacity due to the direct discharge into the Bellingham sewer line. There is no fee for this service. Although EPA understands that the distance from these facilities renders them less useful to commercial vessels that primarily transit the high-traffic areas of Seattle and Tacoma, these two stationary facilities are not the only commercial pumpout options and are not the primary basis of EPA's affirmative determination.

EPA also acknowledges that there may be accessibility and capacity issues with regard to certain shore-based recreational facilities. The commenters did not provide additional specific information, however, and generally sought to eliminate consideration of all recreational pumpouts based on access considerations. Although EPA disagrees with the suggestion that there are no recreational facilities with the capability of serving commercial vessels, EPA has not included recreational facilities in its preliminary or final determinations regarding commercial pumpouts.

As discussed in the preliminary affirmative determination, and in more detail below in Comments 25 and 26 and EPA's final determination, EPA has determined that there are numerous mobile pumpout facilities with the capacity to serve large commercial vessels and that service all of Puget Sound. Among the five pumpout companies identified in Ecology's petition, approximately 52 pumpout trucks and two mobile commercial pumpout vessels are available to service all of Puget Sound. As such, the geographic location or vessel access restrictions at the two stationary pumpout facilities in Bellingham are not determinative.

Comment 25 (Mobile Pumpout Facilities): Many commenters similarly submitted comments regarding the inadequacy and lack of availability of mobile pumpouts. Commenters noted that many mobile pumpouts are not configured to service larger boats because they have insufficient capacity for larger volumes of waste and take too long to service some of the larger vessels. One commenter noted, for example, that mobile pumpout facilities have a capacity of only several hundred gallons, while vessels like the *American Spirit* generate thousands of gallons of

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blackwater during a cruise itinerary. Other commenters stated that the overnight small passenger vessels require a capacity upwards of 4,000 gallons and the oceangoing tugs require 3,000 gallons. Several commenters stated that sufficient capacity was lacking because the largest mobile pumpout capacity is limited to 450 gallons.

Response 25: To follow up on comments received regarding mobile pumpouts, EPA contacted four of the commercial marine work companies identified in Table 7 of Ecology's supplemental information document entitled "Commercial Vessel Pumpout Availability" (October 2016). EPA's outreach confirmed that the information provided in Table 7 was accurate. The four companies contacted were Marine Vacuum Services, Washington Marine Cleaning, Emerald, and Arrow Marine Services. All four companies serve the entire Puget Sound region to be covered by the no-discharge zone. EPA notes that this information is consistent with that submitted in Ecology's petition and in comments from Friends of the Earth, the Washington Environmental Council, and Futurewise, which reported speaking with all five of the commercial mobile pumpout companies listed in Table 7 of Ecology's supplemental document.

Number of Companies: Between these five companies, which are a subset of the 194 mobile pumpout companies listed in Table 8 of Ecology's supplement, over 52 vacuum trucks and two mobile pumpout vessels are available for pumping out larger recreational vessels and commercial vessels throughout all of Puget Sound. The two mobile commercial pumpout vessels service all sizes of commercial vessels while at anchor or docked. All of these companies that provide mobile services will travel to the customer so that the distribution of services covers all of Puget Sound.

Service Provided: Based on EPA's communications with these facilities, the types of commercial vessels serviced include service tugs, fishing vessels, oil tankers, bulkers, and container ships. Three of the four companies verified that they have also pumped out sewage from Navy and/or Coast Guard vessels. All of the companies listed above told EPA that they are available to pump out 24 hours a day, seven days a week, and 365 days a year. Same day service is available, and appointments can be scheduled in advance.

Capacity: Capacity of the trucks and the two mobile pumpout vessels ranges from 3,000 gallons up to 7,000 gallons. For example, Marine Vacuum Services alone has a fleet of 20 vacuum trucks with capacities of 3,000-5,000 gallons each. Similarly, Emerald has more than 20 vacuum trucks with capacities of 3,000-6,500 gallons. Mobile pumpout services offered by the companies in Table 7 are capable of serving the large tank capacities (approximately 3,000 gallons) of tugboat holding tanks. In addition to the capacity and availability of the trucks and vessels, one or more 5,000-gallon or 20,000-gallon capacity dockside tanks can be installed for the convenience of vessels that want to pump out at specific times within their operational schedule on an ongoing basis. The sewage stored in these tanks are later collected by pumpout trucks. Larger volumes of waste than the available capacity of these pumpout trucks and vessels are generally handled by either installing multiple tanks on a dedicated dock, or with multiple trucks.

Time to Pump Out: Many factors affect the amount of time involved in pumping out a vessel. The companies contacted indicated that a 3,000-gallon tank (the average size of a large

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commercial tug holding tank) could be serviced in as little as 30 minutes up to 4-5 hours, depending upon the proximity of the truck to the vessel, the length of hose needed, the size of the vessel fitting, and the head pressure from the vessel. Arrow Marine Services uses a combination of mobile pumpout vessels with 3,000-gallon tanks that service boats from the water and shore-based trucks to offload the sewage from their mobile pumpout vessels. Most of their pumpouts are 6,000 gallons, and take 6-7 hours total (this time includes transfer to shore-based trucks and does not represent total vessel wait time). Because services can be scheduled in advance, these pump out times can be factored into a vessel's itinerary.

Dock Access: These commercial marine work companies specifically stated that access to docks has not been an issue. They have been able to access docks with limited load bearing capacity with their smallest trucks (capacity of 3,000 gallons) or by increasing the hose length to shore in areas where load bearing issues affect a truck's access to a dock. Load bearing issues requiring the use of a longer hose appear to be primarily a concern in recreational marinas. With regard to security, all four companies confirmed that security considerations do not limit their access to docks or piers, and that all of their employees possess Transportation Worker Identification Credential (TWIC) cards.

Seasonality: As described above, EPA interviewed four companies that provide mobile pumpout service to commercial vessels in Puget Sound, all of which have the capacity to pump out tanks that are 3,000 gallons or larger. Washington Marine Cleaning, Arrow Marine Services, and Marine Vacuum Services communicated to EPA that they do not have seasonal fluctuations in demand because they are so diversified. Emerald said that it has higher demand during Seafair due to the influx of Navy vessels.

Based on this specific information, EPA disagrees that these mobile pumpout services cannot provide adequate service for the commercial vessel population in Puget Sound.

Comment 26 (Small Cruise Vessels): American Cruise Lines commented that the *American Spirit* generates a minimum of 12,000 gallons of blackwater during a week-long cruise. Although the vessel currently has a holding tank that can accommodate 20,000 gallons of sewage effluent, the operator's policy is to allow no more than 10,000 gallons to accumulate in the tank for safety reasons. Since the vessel typically generates at least 12,000 gallons of blackwater per week, there is a need for disposal of the effluent at various times within the typical week-long cruise in Puget Sound. American Cruise Lines also commented that barges offering pumpout services have such low capacity that it would take approximately 15 hours for *American Spirit* to discharge sewage, and that pumpout barges are not interested in doing business with them. Although American Cruise Lines acknowledges that pumpouts could be completed in four hours in Seattle using two trucks, it states that this is not reasonable or practical because pumpout operations would have to be conducted during non-business hours, thus requiring American Cruise Lines to pay a premium charge, and also call out at least two additional personnel to oversee the operation, which would unreasonably divert crew from ensuring a safe and enjoyable cruising experience for its passengers.

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Response 26: Based on EPA's January 2017 communications with mobile pumpout service providers, the time required to pump out a 3,000 gallon holding tank ranges from 30 minutes to five hours; a 6,000 gallon tank may take up to six or seven hours. Pumpout times vary based on factors such as the hose length required, the size of the fitting used by the vessel, and the head pressure supplied by the vessel. As noted above in the response to Comment 25, mobile pumpout services are available throughout the day, and can be scheduled in advance. If American Cruise Lines or other operators coordinate with pumpout services to coincide with scheduled stops or overnight stays at port cities, pumpouts should be able to take place within the existing timeframe of cruise itineraries. In addition, to the extent that American Cruise Lines needs to adjust its itinerary to accommodate its pumpout needs, that does not mean that adequate pumpouts are not reasonably available. Similarly, the fact that American Cruise Lines may need to make operational adjustments to accommodate the pumpout issues described for Seattle does not mean that adequate pumpout facilities are not reasonably available.

The mobile pumpout companies contacted by EPA expressed a strong interest in providing service to commercial vessels throughout Puget Sound. Given that American Cruise Lines did not provide the name of the specific barge pumpout companies that they contacted, EPA cannot speak to the referenced lack of interest by those service providers. Another option, however, is to contract with one of the pumpout truck companies, which have more than 52 vacuum trucks available.

Comment 27 (Large Cruise Vessels): Royal Caribbean Cruises and Norwegian Cruise Lines submitted comments generally suggesting a lack of pumpout facilities that can service large commercial vessels in Puget Sound, and articulated the same issues outlined in Comment 24. Cruise Lines International Association stated that no land-based reception facilities are available within the Puget Sound area for cruise ship wastewater.

Response 27: As discussed in response to Comment 22, Ecology's petition determined that large oceangoing vessels, including cruise ships, have large enough holding tanks so that they can hold their waste during the time they are in Puget Sound. That conclusion is supported by the *Phase 2 Commercial Vessel Sewage Management and Pumpout: Puget Sound No Discharge Zone for Vessel Sewage* that Herrera prepared for Ecology in 2013. According to the *Phase 2* report, typical holding capacity for large cruise ships is 2 to 3 days, and cruise vessels are usually in Washington waters for about 10 to 14 hours. Per Ecology's Supplement, "The large, oceangoing transient commercial vessels that are only in Puget Sound for a short period of time (e.g., large cruise ships, freighters and tankers) have large enough holding tanks so that they can hold their waste during the time they are in Puget Sound, with some exceptions. Should these vessels need to be pumped out, they can contract with a shore-based pumper truck or one of the mobile pumpout services." Further evidence of this holding capability is the information in Ecology's 2013 *Phase 2* report that no large cruise ships requested direct discharge authorization to Puget Sound during the prior two seasons. EPA has further confirmed that no large cruise ships have requested direct discharge authorization since 2012. See Ecology's annual cruise ship Discharge Status Reports at http://www.ecy.wa.gov/programs/wq/wastewater/cruise_mou/previouscruiseseasons.html. As such, it appears that large cruise ships have sufficient holding tank capacity and do not need to rely on pumpout facilities while in Puget Sound. In addition, as discussed in detail in response to Comment 25, mobile pumpouts are widely available and have the capacity to service large commercial vessels in Puget Sound.

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Comment 28 (Adequacy of Recreational Pumpouts): Many commenters concurred with EPA's preliminary determination that there are adequate and reasonably available pump out facilities available to recreational boaters. Many commenters also agreed, without elaboration or detail, with EPA's determination that recreational vessels have at least one pumpout facility per 171 vessels. In terms of South Sound coverage, several commenters noted that there are twenty-one pumpout facilities and three mobile pumpouts for recreational vessels. Many commenters said there are currently far more pumpout facilities in Puget Sound than required by Clean Vessel Act guidelines. Commenters also noted that there are pumpout stations at most marinas and that many are free of cost.

EPA also received numerous comments generally stating that there are insufficient pumpouts for recreational vessels and also comments providing specific details regarding inadequate recreational vessel access to pumpout facilities, such as pumpout location and distribution, access issues, limited pumpout cart capacity, and wait times. These issues are addressed in more detail below.

Response 28: EPA acknowledges and appreciates these comments. As discussed in more detail in EPA's final determination, EPA's analysis is based on Ecology's overall estimate of the recreational vessel population, as compared to the number of pumpout facilities in the Clean Vessel Act guidelines. In sum, using the most conservative (highest) recreational vessel population estimate of 43,677, reduced by a 40 percent peak occupancy rate recommended by the Clean Vessel Act Technical Guidelines, EPA has calculated that 17,471 of the 43,677 recreational vessels would require access to a pumpout facility during peak boating season. The State identified 102 recreational pumpout locations, which results in a ratio of 171 recreational vessels for each pumpout location. Commenters did not take issue with the overall population estimates. In addition, EPA notes that this number does not include the many mobile services identified in Ecology's petition and in EPA's response to Comment 25. Moreover, using the vessel population estimate that Ecology considers more realistic, that ratio drops to 92:1. Because the ratio of 171:1 well exceeds the recommended minimum ratio of 600:1 using the most conservative estimates, EPA has determined that adequate pumpout facilities for the safe and sanitary removal and treatment of sewage for recreational vessels are reasonably available for the waters of Puget Sound.

Comment 29 (Pumpout Facility Distribution): Several boat owners commented that the establishment of a no-discharge zone would be a burden to the recreational boating community due to the distribution of pumpout facilities. They suggested that boaters would be required to travel long distances to reach a pumpout facility, particularly in remote areas. Areas specifically cited as lacking pumpout facilities included: Quartermaster Harbor, Dockton Park, Port Madison, San Juan County (specifically Roche Harbor, Friday Harbor, Stuart Island State Park and Sucia Island State Park), and South Sound, especially during the summer season.

Response 29: EPA reviewed information from the State to better understand and confirm the distribution and availability of pumpout facilities in areas where commenters cited inadequate access. EPA has also reviewed the geographic distribution of the pumpouts dedicated to primarily recreational vessels on <https://pumpoutswashington.org> to visually verify the

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geographic distribution throughout Puget Sound. EPA notes that while Port Madison does not currently provide pumpout services, according to Appendix A of Ecology's petition, there are four other pumpout facilities on Bainbridge Island. EPA also looked into the facilities in the San Juan Islands and determined there are currently six land-based pumpout facilities in San Juan County: two on San Juan Island, two on Orcas Island, one on Lopez Island, and one on Stuart Island. With regard to South Sound, there are four pumpout facilities in Gig Harbor, five in Olympia, and 16 in Tacoma, plus six in Hood Canal. EPA has confirmed that the Quartermaster Marina does not have a pumpout facility, but notes that King County plans to install a public pumpout at Dockton Park in 2018 - although future pumpouts are not considered in EPA's assessment.

As noted above, the Puget Sound exceeds the Clean Vessel Act criterion with a ratio of at least one pumpout station for every 171 vessels. Notably, using the vessel population estimate that Ecology considers more realistic, that ratio drops to 92:1. Therefore, EPA's determination of adequacy is justified, since the ratio is well below the Clean Vessel Act guidelines of one pumpout station for every 600 vessels. EPA recognizes the importance of adequate pumpouts to service the boating activity within a given waterbody, and further notes that (stationary) recreational pumpouts are located in the vicinity of a port or marina, where the vast majority of vessels' trips begin and end, so they are conveniently located and accessible. In addition, as discussed in EPA's final determination and in response to Comment 25, EPA has confirmed that mobile pumpout trucks and vessels provide service for recreational vessels throughout Puget Sound, including the areas mentioned in the above comments. The mobile pumpout providers contacted by EPA confirmed that mobile pumpout services are available seven days a week, with extended hours during the busy summer months. In addition to the information provided in Ecology's petition and EPA's determination, pumpout services can be found by searching business listings for pumpout boats, mobile pumpout, or septic boats.

EPA further notes that Ecology's petition provides information that the overwhelming majority of recreational vessels (91 percent) already had holding tanks and are required to use pumpout facilities under existing state environmental laws. According to Ecology, approximately five percent of the vessel population used Type I or Type II MSDs and will need to install holding tanks to achieve compliance. In addition, the Recreational Boaters Association of Washington noted that the no-discharge zone requirements will directly affect approximately 200-300 recreational boaters. While not an insignificant number, this is a relatively small subset when compared to the overall recreational vessel population of Puget Sound. This suggests that recreational boaters are already using pumpouts to a large degree and with success.

EPA acknowledges that some boaters may need to travel a greater distance to the nearest pumpout facility or alter their itineraries, which could result in some inconvenience. The location of pumpout facilities and possible wait times, along with factors such as fuel, weather, supplies and charts, are factors a vessel operator needs to consider when planning a trip. Given the overall geographic distribution and the current, widespread use of pumpouts, EPA does not agree that a change to EPA's determination is necessary based on these comments.

Comment 30 (Recreational Access): EPA received several comments that Ecology's list of recreational pumpouts does not take into consideration the limited access to a large number of

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pumpouts because of factors such as: 1) tidal influence on draught, 2) other vessels blocking the pumpout, 3) lack of open moorage, or 4) long wait times.

Response 30: The EPA acknowledges that some pumpout facilities may be temporarily unavailable due to the factors presented by the commenters. At the same time, some of these issues will always be present regardless of the number or distribution of pumpout facilities. In addition, the issues raised may be addressed by using the widely available mobile pumpout facilities, discussed in EPA's response to Comment 25 and in EPA's final determination. EPA therefore does not agree that these factors require a determination that recreational pumpout facilities are not reasonably available.

Comment 31 (Pumpout Reliability): Several boat owners commented that pumpout facilities may be out of order for extended periods, further reducing facility availability. One commenter said that a no-discharge zone should not be considered until adequate pumpouts are installed and operating reliably.

Response 31: EPA recognizes that proper operation and maintenance of recreational pumpout facilities are essential to the successful implementation of the no-discharge zone. The EPA also acknowledges that pumpout facilities do not always operate reliably, and that individual pumpout facilities may be out of order at any given time. This issue will always be present, regardless of the number or distribution of pumpout facilities. In addition, pumpout facilities are well distributed throughout Puget Sound; there are more than enough pumpout facilities to reasonably service recreational vessels, and mobile pumpout services are also available, as discussed in EPA's response to Comment 25, above. In any event, issues regarding maintenance and repair of pumpout facilities pertain directly to the State's implementation of the no-discharge zone, which is beyond the scope of EPA's action here. As such, EPA therefore does not agree that these factors require a determination that recreational pumpout facilities are not reasonably available.

Comment 32 (Small Holding Tanks): Several recreational boaters were concerned that the holding tanks on their vessels were so small that they would need to travel to a pumpout facility as frequently as every two or three days. Similarly, commenters expressed concern with the limitations of tank sizes for boaters who frequent remote waters or who travel to neighboring waterbodies.

Response 32: The EPA acknowledges that once the no-discharge zone is in effect, recreational boaters will need to factor pumpout services into their itineraries, and that this may cause some inconvenience. The location of pumpout facilities and possible wait times, along with factors such as fuel, weather, supplies and charts, are factors a vessel operator needs to consider when planning a trip. Recreational boaters also have the option of hiring mobile pumpout service providers. As such, EPA does not agree that these factors require a determination that adequate pumpout facilities are not reasonably available.

Comment 33 (Large Recreational Vessels): Several commenters wrote that a disproportionate burden falls to larger recreational vessels (e.g., larger than 58 or 65 feet in length), since some of

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the pumpout locations may be unable to service larger vessels, or are too crowded to be easily accessed.

Response 33: EPA acknowledges that fewer pumpout facilities are available for large recreational vessels than for smaller recreational vessels, and that large recreational vessels may face additional issues with regard draught and berthing limitations. This does not, however, mean that adequate pumpout facilities are not reasonably available. As one commenter has noted, for example, Squaticum Harbor in Bellingham provides a stationary pumpout station (free of charge and with unlimited capacity because it is connected to sewer lines) to vessels up to 70 feet in length. In addition, according to Ecology's petition, a variety of marinas throughout Puget Sound provide pumpout services to large recreational vessels (e.g., Shilshole Bay, Bell Harbor Marina, Elliott Bay Marina, Foss Waterway Seaport Authority, Foss Harbor Marina, and Swantown Marina in Olympia). See Appendix A of Ecology's petition for more information, including maximum vessel length, minimum depth at low tide, and hours of operation. Moreover, as described above and in Table 8 of Ecology's Supplement, there are 194 mobile pumpout companies. Of these, at least 52 vacuum trucks and two mobile pumpout vessels are available for pumping out larger recreational vessels and commercial vessels throughout all of Puget Sound. See EPA's response to Comment 25 for more detail.

Comment 34 (Limited Pumpout Cart Capacity): One commenter wrote that pumpouts can be carts with a tank on them, necessitating multiple trips across a dock to empty out a vessel's holding tank.

Response 34: EPA acknowledges that mobile pumpout carts often have limited (i.e., 30-55 gallon) capacity and that multiple trips may be necessary. This alone, however, does not mean that adequate pumpouts are not reasonably available. Moreover, pumpout carts are simply one type of pumpout facility. Vessel operators may choose to conduct pumpout operations at a land-based pumpout facility (some of which have unlimited capacity because they are connected to sewer lines), or to contract with a mobile pumpout service provider. For a list of pumpout facilities throughout Puget Sound, please see Appendix A of Ecology's petition.

Comment 35 (Receipt of Septage): One commenter expressed concern with sewage facilities accepting septage at Roche Harbor and Friday Harbor, indicating that the Friday Harbor facility is sensitive to receiving vessel sewage.

Response 35: As noted above, EPA's authority under CWA Section 312(f)(3) is limited to evaluating the reasonable availability of pumpout facilities. Any considerations as to whether an individual wastewater treatment facility has the capacity to accept vessel sewage would appropriately lie within the jurisdiction of that municipality or utility.