The Washington State Department of Natural Resources (DNR) conducted a public process to develop vessel inspection rules, as directed by the 2013 Washington Legislature in revisions to chapter 79.100.150 RCW. As part of the rulemaking, DNR considered the probable benefits and costs associated with adopting the proposed rule. Following is a summary of findings from the larger report to the Board of Natural Resources as part of the DNR’s recommendation to adopt the proposed rule.

**Assessing Benefits**

There will likely be some benefits as a result of this rule. However, implementation of the rule will not by itself reverse the eventual path of a vessel bound for dereliction at the end of its useful life. With few exceptions, the rule will:

1. Produce more cautious, responsible sellers and better informed, financially-prepared buyers;
2. Create an incentive for owners to maintain the vessel or, if financially unable, to properly dispose of and/or deconstruct it; and,
3. Provide DNR useful information about the condition of larger vessels on Washington waters.

**Risk-Reducing Benefits**

Benefits of the rule include ‘avoided costs’ to the Derelict Vessel Removal Program (DVRP). DNR receiving the report would signal a transfer in ownership and a likely change of moorage locations. DNR would be alerted in a timely manner to more closely monitor the disposition of these potential, high-risk vessels. If DNR were able to prevent even one large vessel from sinking, the avoided costs could be in the millions of dollars.

Holding vessel inspection information may help DNR expedite and reduce costs for necessary vessel removal and disposal actions. DNR could more quickly assess the vessel condition and respond to derelict or abandoned vessels. DNR could develop more cost-effective response strategies to large vessel removal and disposal, based on cumulative evaluation of vessel inspections. In addition, DNR could potentially reduce total financial costs by preventing emergency response situations of derelict vessels sinking. Finally, the rule would provide DNR the ability to pursue financial reimbursement by charging prior owners with secondary liability for vessel disposal costs.

These potential risk-reducing benefits have not been integrated into the model because they are difficult to quantify, have limited supporting data, and are likely to be highly variable compared to the other quantities modeled. As a result, while these more qualitative benefits are considered important in addressing derelict vessels, they have not been specifically factored into the outcome of this analysis.

**Seller Benefits**

Once a seller finds a buyer willing to purchase a vessel after receiving the report, the seller would be absolved of further financial responsibility by complying with the law and rule. The buyer would be informed of the vessel condition and the financial responsibility they would assume. If the buyer were to act as if the report did not exist, there would be no benefit to DNR (there would be no difference from the base case).

The seller may roll the cost of the inspection into the selling price of the vessel, possibly making it less likely to be sold if considered too expensive for the market or less profitable to the seller if sold. If the
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cost of vessel disposal is high, the seller may choose to absorb the inspection cost to avoid the greater cost of properly disposing of the vessel, and sell the vessel anyway. If the seller absorbs the cost of the inspection and sells the vessel at a loss, they would avoid liability to reimburse DNR for the eventual vessel removal and disposal costs. Either way, the ultimate disposal costs would shift to either the new owner or to DNR if the vessel were subsequently abandoned.

Sellers who may be willing to disregard the rule’s vessel inspection requirement and risk secondary liability likely have little to lose financially. They may be unable to afford or absorb the costs of the inspection and wait for a willing, fully-informed buyer. They also may not be financially able to maintain a vessel if they were to retain ownership. Nor would they likely be able to reimburse DNR for the future costs of vessel removal and disposal.

When a vessel’s value is nominal or less than the cost of the survey, the rule’s vessel inspection requirement may encourage vessel owners to dispose of the vessel, rather than incurring the additional cost of a survey as part of selling the vessel.

Sellers may choose to:

- Only negotiate with buyers willing to conduct their own pre-purchase vessel inspection;
- Purchase a vessel inspection and provide the inspection report to an amenable buyer;
- Choose not to purchase a vessel inspection and either: sell the vessel in Washington State without providing an inspection report (and risk potential secondary liability), or physically move the vessel out-of-state or out-of-country and sell it to a buyer in a different jurisdiction;
- Properly dispose of and/or deconstruct the vessel by removing it from the water before it becomes derelict; or
- Abandon the vessel on the water.

Buyer Benefits

Prospective buyers would receive a benefit from improved information about the condition of the vessel. This benefit is difficult to quantify because, assuming a rational actor model of behavior, if a buyer wanted an inspection, then they would normally purchase one—which is the typical financial practice in almost all cases. If the buyer was not getting the inspection, then they likely had done their own internal cost-benefit analysis and decided the costs outweighed the benefits.

A bounded-rational actor model of behavior suggests that there are some inexperienced buyers or entrepreneurs that may not seek all of the relevant information about a vessel purchase because they do not know what they need to know. These uninformed buyers are most likely to benefit from the rule because it will ensure that they have relevant information that may have a net benefit relative to the costs for them.

Assessing Costs

The proposed rule would impose costs associated with the pre-purchase vessel inspections on vessel owners. In this analysis, the inspection costs considered are only those costs that would not have occurred without the rule—i.e., the additional inspections. However, the cost of administering the proposed rule
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would include inspections for all transactions of vessels longer than 65 feet or longer and 40 years or older, not just the additional inspections. This is because all transactions involving responsible buyers and sellers, those buyers who would have obtained a pre-purchase inspection without the rule, now have an additional minor cost to the sellers of submitting the inspection report to DNR (or, in limited cases, sellers purchasing an inspection when buyers don’t) and an additional minor cost to DNR of recording and archiving the inspection reports received.

The financial costs of removing and disposing of derelict vessels do not reflect the true cost of a vessel sinking. For instance, in 2013 the ‘Deep Sea’ vessel disposal cost DVRP over $1 million in direct salvage and clean-up costs. There were likely additional costs of environmental resource damage not accounted for. Therefore, any amount reimbursed to DVRP is unlikely to fully compensate the public for the damage done by a sinking or derelict vessel.

Cost Drivers and Allocation Factors

Cost Drivers

As manager of the Derelict Vessel Removal Program (DVRP), DNR incurs costs associated with removing and disposing of derelict and abandoned vessels in Washington State waters. Based on the Program’s experience, these removal and disposal costs are proportionately higher for larger and older vessels. Vessel owners and DNR both encounter more difficulty and greater expense when removing and disposing of larger, older vessels because of the vessel’s uncertain structural configuration and condition.

Cost Allocation Factors

This analysis considers the costs of the proposed rule to the vessel owner required to provide vessel inspection documentation to the prospective buyer and DNR. Under the proposed rule, in those limited instances where the buyer doesn’t obtain a vessel inspection, the seller would be required to contract for an inspection. Marine surveyors’ fees for conducting vessel inspections reflect the complexity of the vessel and are a fixed cost unrelated to the current market value of the vessel.

- Dollar value of the vessel in relation to the cost of the pre-purchase vessel inspection (% of inspection cost to total sale price).
- Size of the vessel and potential cost of removal and disposal (exponential or linear increase in proportional cost).
- Number of vessels sold whose owners provided inspections to the buyer and DNR (% of total sold).