

Oregon Department of Environmental Quality

 April 15, 2016

 Notice of Proposed Rulemaking

**Ballast Water Management 2016**

|  |
| --- |
| Overview |

## Short summary

DEQ proposes the Oregon Environmental Quality Commission approve the proposed ballast water management rule amendments. These amendments would further enhance DEQ’s ability to prevent introducing aquatic invasive species (AIS) from commercial shipping activities into waters of the state, protecting Oregon from potentially harmful economic and environmental impacts. The proposed rule amendments are in response to recent changes in Federal regulations and aim to ensure adequate management strategies to prevent introducing aquatic invasive species to Oregon ports.

The proposed rules establish greater protection for Oregon water resources and aquatic ecosystems in two ways. First, the rules close a management gap associated with residual ballast water and sediments in empty ballast tanks that represents a risk for introducing aquatic invasive species when vessel operators must ballast and subsequently de-ballast from empty ballast tanks while in state waters. Second, the rules would retain oceanic ballast water exchange requirements for a subset of vessel arrivals that represent a high-risk for introducing AIS to Oregon. Instead of replacing ballast water exchange with shipboard treatment strategies, as recent federal regulatory changes propose, maintaining ballast water exchange requirements, in addition to the use of shipboard treatment, for high-risk voyages would reduce concerns over the adequacy of federal discharge standards and the reliability of first-generation shipboard treatment technologies.

The proposed rules do not involve fees, additional equipment requirements or significant administrative efforts in order to comply. Therefore, under normal operating circumstances, these rules will not have any significant negative economic impacts, either direct or indirect.

This rulemaking includes a second element. As an administrative action intended to improve the clarity of its rules, DEQ has included rulemaking on a second topic in this rulemaking. This action involves DEQ’s noise control regulations, found at OAR 340 division 35.

The noise control regulations refer to a number of tables and external documents. Currently, those documents are not published with the official version of the rules the Oregon Secretary of State publishes. Instead, DEQ maintains those documents on its own web site.

In this rulemaking DEQ is asking the EQC to approve amendments to the noise regulations that only incorporate tables and documents the rules refer to directly into the rules. This will make it easier for users of these rules to find the information they need to interpret and apply the rules. It will also relieve DEQ from the cost and responsibility of maintaining these documents on its web site.

This rule change does not change any content or wording of the noise control regulations. There is no change in the meaning, effect, or application of these rules. There is also no negative fiscal impact to any person or entity from this rule change.

DEQ will therefore ask the EQC to approve these proposed amendments to the division 35 noise control regulations.

## Regulated parties

Oregon ballast water regulations (OAR 340-143) establish mandatory management practices that are required of commercial shipping vessels over 300 gross tons in order to discharge ballast water while operating within waters of the state.

The noise control regulations apply to a wide range of parties that generate noise. However the proposed amendments do not change the regulated parties or the compliance requirements in any way.

## Request for other options

During the public comment period, DEQ requests public comment on whether to consider other options for achieving the rules’ substantive goals while reducing the rules’ negative economic impact on business.

|  |
| --- |
|  |

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |

|  |
| --- |
| Statement of need |

| Proposed Rule or Topic | Discussion |
| --- | --- |
| Management of Empty Ballast Tanks  |
| What need would the proposed rule address? | Reduce the invasive species transfer risk associated with in residual ballast water and sediments in ‘empty’ ballast tanks which may be used for ballasting and subsequent de-ballasting while in state waters. |
| How would the proposed rule address the need?  | The proposed rule requires vessel operators to conduct a mid-ocean saltwater flush of empty ballast tanks that they want to use for ballasting and subsequent de-ballasting while in port. |
| How will DEQ know the rule addressed the need? | Mid-ocean saltwater flushing of an empty ballast tank will result in residual water salinity of at least 30 parts per thousand, and thereby will significantly reduce the probability for introducing high-risk species to the low-salinity environments of Oregon ports. This minimum salinity criterion can be used for compliance verification purposes.  |
| Retaining Ballast Water Exchange  |
| What need would the proposed rule address? | Address concerns that new federal requirements could, under some circumstances, represent a lower efficacy for preventing aquatic invasive species transport to low-salinity ports in Oregon than current management practices. |
| How would the proposed rule address the need?  | Retain ballast water exchange requirements for a subset of Oregon vessel arrivals that represent a high risk for transporting AIS to Oregon ports. |
| How will DEQ know the rule addressed the need? | Compliance verification of minimum salinity threshold for vessel arrivals affected by this rule, combined with verification of shipboard treatment system efficacy, will provide an adequate level of protection against aquatic invasive species transport risks to Oregon from ballast transfer activities. |
| Noise Tables |
| What need would the proposed rule address? | The proposed amendments are intended to make DEQ’s noise control regulations easier for a user to interpret and apply. |
| How would the proposed rule address the need?  | The amendments move tables and reference documents from a source that is external to the official published version of the rules and incorporates those documents into the official published version of the rules. |
| How will DEQ know the rule addressed the need? | The external documents will have been incorporated into the official published version of DEQ’s rules. |

|  |
| --- |
| Rules affected, authorities, supporting documents |

## **Ballast Water Rules**

## Lead division

Operations Division

## Program or activity

Ballast Water Management

## Chapter 340 action

Amend OAR 340-143-0005, 340-143-0010, 340-143-0050

## Statutory authority

ORS 468.020, 783.620 – 783.640

## Statute implemented

ORS 783.620 – 783.640

## Legislation House Bill 2207 (2015)

## Other authority

Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA - Section 1205) (codified as 16 U.S.C. § 4725)

Documents relied on for rulemaking

|  |  |
| --- | --- |
| Document title | Document location |
| Oregon Task Force on Shipping Transport of Aquatic Invasive Species – Report to the 2015 Legislature | <http://www.deq.state.or.us/lq/cu/emergency/staistaskforce.htm> |
| EPA VGP 2013 | <http://www.epa.gov/npdes/vessels-incidental-discharge-permitting-3>  |
| Transport Canada Policy Implementation Paper 2012 | Deq.gov |
| Briski, E., Gollasch, S., David, M., Linley, R. D., Casas-Monroy, O., Rajakaruna, H., & Bailey, S. A. (2015). Combining ballast water exchange and treatment to maximize prevention of species introductions to freshwater ecosystems. *Environmental science & technology*, *49*(16), 9566-9573. | Deq.gov |
| Bailey, S. A., Deneau, M. G., Jean, L., Wiley, C. J., Leung, B., & MacIsaac, H. J. (2011). Evaluating efficacy of an environmental policy to prevent biological invasions. *Environmental Science & Technology*, *45*(7), 2554-2561. | Deq.gov |
| Briski, E., Allinger, L. E., Balcer, M., Cangelosi, A., Fanberg, L., Markee, T. P., ... & Regan, D. H. (2013). Multidimensional approach to invasive species prevention. *Environmental science & technology*, *47*(3), 1216-1221. | Deq.gov |
| Gray, D. K., Johengen, T. H., Reid, D. F., & MacIsaac, H. J. (2007). Efficacy of open‐ocean ballast water exchange as a means of preventing invertebrate invasions between freshwater ports. *Limnology and Oceanography*, *52*(6), 2386-2397. | Deq.gov |
| Bradie, J. N., Bailey, S. A., Van Der Velde, G., & MacIsaac, H. J. (2010). Brine-induced mortality of non-indigenous invertebrates in residual ballast water. *Marine Environmental Research*, *70*(5), 395-401. | Deq.gov |
| Gollasch, S., David, M., Voigt, M., Dragsund, E., Hewitt, C., & Fukuyo, Y. (2007). Critical review of the IMO international convention on the management of ships’ ballast water and sediments. *Harmful algae*, *6*(4), 585-600. | Deq.gov |
| Ruiz, G.M, & Reid, D.L. (2007). Current State of Understanding about the Effectiveness of BallastWater Exchange (BWE) in Reducing Aquatic Nonindigenous Species(ANS) Introductions to the Great Lakes Basin and Chesapeake. NOAA Technical Memorandum GLERL-142. | Deq.gov |
| Simkanin, C., Davidson, I., Falkner, M., Sytsma, M., & Ruiz, G. (2009). Intra-coastal ballast water flux and the potential for secondary spread of non-native species on the US West Coast. *Marine Pollution Bulletin*, *58*(3), 366-374. | Deq.gov |

Noise Control Regulations

## Lead division

Operations Division

## Program or activity

Rulemaking

## Chapter 340 action

Amend OAR 340-035-0015, 340-035-0025, 340-035-0030, 340-035-0035, 340-035-0040

340-035-0045

## Statutory authority

ORS 467

## Statute implemented

ORS 467, 467.030,

Documents relied on for rulemaking

None.

|  |
| --- |
| Fee Analysis ORS 291.055(1)(d) |

This rulemaking does not involve fees.

|  |
| --- |
|  Statement of fiscal and economic impact  |

Fiscal and Economic Impact

Ballast Water Rules

This rulemaking amends invasive species prevention practices required of commercial vessels greater than 300 gross tons that intend to discharge ballast water while operating in state waters. The vast majority of affected vessels are owned and operated by large foreign businesses. The proposed rules do not involve a significant cost of compliance for these foreign businesses and are not expected to have any indirect effects on local businesses that are dependent upon maritime commerce.

Noise Table Rules

This rulemaking makes no wording or substantive change to DEQ’s noise regulations and therefore has no fiscal impact on any person or entity.

Statement of Cost of Compliance

**State and federal agencies**

Ballast Water Rules

This rulemaking will not require additional resources for the Department of Environmental Quality, nor other state or federal agencies.

Noise Table Rules

This rulemaking makes no wording or substantive change to DEQ’s noise regulations and therefore has no fiscal impact on any person or entity.

**Local governments**

Ballast Water Rules

This rulemaking only affects commercial vessels greater than 300 gross tons arriving from outside of Oregon waters and therefore has no fiscal impact on local governments.

Noise Table Rules

This rulemaking makes no wording or substantive change to DEQ’s noise regulations and therefore has no fiscal impact on any person or entity.

**Public**

Ballast Water Rules

These rules would not impose a negative economic impact on the general public. Rather, these rules are intended to protect the general public by preventing the introduction of aquatic invasive species, which have caused devastating economic impacts for public and private sector entities in other regions of the country.

Noise Table Rules

This rulemaking makes no wording or substantive change to DEQ’s noise regulations and therefore has no fiscal impact on any person or entity.

**Large businesses - businesses with more than 50 employees**

Ballast Water Rules

No significant economic impact is anticipated as a result of the proposed rules. The proposed rules do not impose fees or require the use or installation of new equipment or management practices.

Noise Table Rules

This rulemaking makes no wording or substantive change to DEQ’s noise regulations and therefore has no fiscal impact on any person or entity.

**Small businesses – businesses with 50 or fewer employees**

Ballast Water Rules

No significant economic impact is anticipated as a result of the proposed rules. Our state ballast water management regulations establish a minimum vessel size criteria (> 300 gross tons with ballast tanks) and exemptions for commercial fishing vessels whereby no small businesses are subject to these rules. Moreover, the proposed rules do not establish fees or require new operational practices to manage ballast water, and thus, under normal operational conditions, would not impose significant economic impacts, either directly or indirectly, to any small businesses.

Noise Table Rules

This rulemaking makes no wording or substantive change to DEQ’s noise regulations and therefore has no fiscal impact on any person or entity.

|  |  |
| --- | --- |
| a. Estimated number of small businesses and types of businesses and industries with small businesses subject to proposed rule.  | This rulemaking has no fiscal impact on small businesses. |
| b. Projected reporting, recordkeeping and other administrative activities, including costs of professional services, required for small businesses to comply with the proposed rule. | N/A |
| c. Projected equipment, supplies, labor and increased administration required for small businesses to comply with the proposed rule. | N/A |
| d. Describe how DEQ involved small businesses in developing this proposed rule. | N/A |

## How DEQ involved small businesses in developing this rule

## Ballast Water Rules

## Greater than 95% of the vessels regulated by ORS 783.620 through 783.640 are owned by large companies that are headquartered outside of Oregon. The limited number of local businesses that operate regulated vessels, typically ocean going tug and barge operations, have more than 50 employees. To incorporate a broader perspective on potential economic impacts to other (non-regulated) businesses, DEQ relied upon advisory committee members representing the general maritime industry for Oregon ports, including representatives from the Port of Portland and the Columbia River Steamship Operators Association.

Noise Table Rules

This rulemaking makes no wording or substantive change to DEQ’s noise regulations and therefore has no fiscal impact on any person or entity.

## Documents relied on for fiscal and economic impact

|  |  |
| --- | --- |
| Document title | Document location |
| N/A |  |
|  |  |

## Advisory committee

DEQ appointed an advisory committee.

As ORS 183.33 requires, DEQ asked for the committee’s recommendations on:

* Whether the proposed rules would have a fiscal impact,
* The extent of the impact, and
* Whether the proposed rules would have a significant impact on small businesses and complies with ORS 183.540.

The committee reviewed the draft fiscal and economic impact statement and its findings are stated in the approved minutes dated 29 February 2016.

The committee did not provide or request additional data to support or refute DEQ’s suggestion that the proposed rules would have no significant direct or indirect economic impacts. One committee member suggested that under some circumstances, vessels subject to ballast exchange plus treatment may not be able to bypass their treatment system upon uptake of originally ballast water. Under these circumstances, a vessel operator would be running the treatment system upon original uptake and again during uptake following mid-ocean ballast exchange. Therefore, some vessels may be subject to treatment system operational costs that are twice as expensive compared to voyage conditions when exchange is not required. The committee determined the proposed rules would not have a significant adverse impact on small businesses in Oregon.

## Housing cost

Ballast Water Rules

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel. DEQ determined the proposed rules would have no effect on the development costs because the rules only affect commercial vessels discharging ballast water that had been sourced from outside state water and the changes to regulations do not impose significant changes in operational costs or investment.

Noise Table Rules

As ORS 183.534 requires, DEQ evaluated whether the proposed rules would have an effect on the development cost of a 6,000-square-foot parcel and construction of a 1,200-square-foot detached, single-family dwelling on that parcel. DEQ determined the proposed rules would have no effect on the development costs because the changes to the noise rules are administrative only and have no substantive effect.

|  |
| --- |
| Federal relationship  |

## Relationship to federal requirements

ORS 183.332, 468A.327 and OAR 340-011-0029 require DEQ to attempt to adopt rules that correspond with existing equivalent federal laws and rules unless there are reasons not to do so.

To address risks associated with empty ballast tanks (340-143-0010), the proposed rules would adopt management requirements that are substantively equivalent to federal requirements established under section 2.2.3.6.3 of the 2013 EPA NPDES Vessel General Permit.

The proposed rules that would retain ballast water exchange practices for a subset of high-risk vessel arrivals (340-143-0050) would add requirements additional to those in federal requirements for vessels calling on Oregon waters. However, the proposed rules are substantively equivalent to federal requirements established under section 2.2.3.7 of the 2013 EPA NPDES Vessel General Permit that requires vessels entering the Great Lakes to retain ballast water exchange practices, in addition to meeting requirements for shipboard treatment technology. In order to adequately protect Oregon waterways from aquatic invasive species introductions, we have modeled our rules after the existing regulations that EPA developed for protecting the Great Lakes. Scientific studies have shown that the ‘exchange plus treatment’ strategy is highly effective at protecting freshwater ports from the economic, ecological and human health threats that can be associated with aquatic invasive species. Moreover, the proposed strategy does not require any additional equipment or technological investments by regulated entities that are not already required under federal regulations. Rather, it simply requires that under some voyage conditions, vessel operators are required to conduct oceanic ballast exchange – the same management practice that has been required for the past 15 years – in addition to meeting the new federal discharge standards.

## What alternatives did DEQ consider if any?

DEQ considered multiple alternatives for ensuring that the implementation of new federal ballast discharge standards result in adequate protection for Oregon waterways from aquatic invasive species threats. Alternatives include the adoption of a state specific ballast water discharge standard that is more protective than what has been established by federal regulations (e.g. California’s ballast water discharge standard is roughly 100x more stringent than the federal standard), as well as a no-action alternative. Ultimately, the ‘exchange plus treatment’ model required for vessels entering the Great Lakes (and similarly adopted by MI, MN, MA, NY, and RI) was deemed to be a sufficiently protective strategy for protecting the predominantly low-salinity ports of Oregon. Moreover, the proposed rules are economically and technologically feasible to implement for commercial vessels arriving to Oregon waters.

|  |
| --- |
| Land use  |

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

## Land-use considerations

In adopting new or amended rules, ORS 197.180 and OAR 340-018-0070 require DEQ to determine whether the proposed rules significantly affect land use. If so, DEQ must explain how the proposed rules comply with state wide land-use planning goals and local acknowledged comprehensive plans.

Under OAR 660-030-0005 and OAR 340 Division 18, DEQ considers that rules affect land use if:

* The statewide land use planning goals specifically refer to the rule or program, or
* The rule or program is reasonably expected to have significant effects on:
	+ Resources, objectives or areas identified in the statewide planning goals, or
	+ Present or future land uses identified in acknowledged comprehensive plans

To determine whether the proposed rules involve programs or actions that affect land use, DEQ reviewed its Statewide Agency Coordination plan, which describes the DEQ programs that have been determined to significantly affect land use. DEQ considers that its programs specifically relate to the following statewide goals:

**Goal Title**

 5 Open Spaces, Scenic and Historic Areas, and Natural Resources

 6 Air, Water and Land Resources Quality

 9 Ocean Resources

11 Public Facilities and Services

 16 Estuarial Resources

Statewide goals also specifically reference the following DEQ programs:

* Nonpoint source discharge water quality program – Goal 16
* Water quality and sewage disposal systems – Goal 16
* Water quality permits and oil spill regulations – Goal 19

## Determination

DEQ determined that these proposed rules do not affectland use under OAR 340-018-0030 or DEQ’s State Agency Coordination Program.

|  |
| --- |
|  Stakeholder and public involvement |

##  Advisory committee

## Background

DEQ convened the Ballast Water Rulemaking 2016 advisory committee. The committee included representatives from local and regional maritime industry entities, advocacy groups, research institutions, and state, regional and federal agencies. The committee met 3 times between December and March 2016. The committee’s web page is located at: <http://www.oregon.gov/deq/RulesandRegulations/Pages/Advisory/ballast2016.aspx>

The committee members were:

|  |  |
| --- | --- |
| Name | Representing |
| Mark Sytsma, Chair | Portland State University |
|  Jas Adams | Willamette University, State Marine Board  |
|  Michelle Hollis | Port of Portland |
|  Frank Holmes | Western States Petroleum Association |
|  Ross McDonald | Sause Bros |
|  Hans Meere | EGT, LLC |
|  Fred Myer | Port of Portland |
|  Amanda Hanson | Lower Columbia River Estuary Partnership |
|  Kate Mickelson | Columbia River Steamship Operators Association |
|  Dick Vander Schaaf | The Nature Conservancy |
|  Travis Williams | Willamette Riverkeeper |
|  Rick Boatner | ODFW |
|  Nicole Dobroski | CSLC |
|  Robyn Draheim | USFWS |
|  Michael Pearson | USCG |
|  Allen Pleus | WDFW |

## Meeting notifications

To notify people about the advisory committee’s activities, DEQ:

* Sent GovDelivery bulletins, a free e-mail subscription service, to the following lists:
	+ On DATES DEQ sent a one-time notice to Name of permittee or other group notified subscribers to describe how to sign up for advisory committee meeting notices, and
	+ People who signed up for the advisory committee bulletin.
* Added advisory committee announcements to DEQ’s calendar of public meetings at [DEQ Calendar](http://oregon.gov/deq/Pages/Events.aspx).
* On DATES DEQ provided notice of meetings and links to committee information through postings on Facebook and Twitter.

## Committee discussions

In addition to the recommendations described under the Statement of Fiscal and Economic Impact section above, the committee devoted a significant proportion of its discussion time to the ballast exchange plus treatment proposal. The committee played an instrumental role in developing applicability criteria and detailed exemptions that will make the regulations more adaptable to rapidly evolving shipboard treatment technologies. Moreover….

## EQC prior involvement

DEQ shares general rulemaking information with EQC through the monthly Director’s Report.

DEQ did not present additional information specific to this proposed rule revision.

|  |
| --- |
|  Public notice and hearings |

## Public notice

DEQ provided notice of the proposed rulemaking and rulemaking hearing on XX April, 2016 by:

* Filing notice with the Oregon Secretary of State for publication in the Oregon Bulletin on 01 May, 2016,
* Notifying the EPA by email,
* Posting the Notice, Invitation to Comment and Draft Rules on the web page for this rulemaking; located at: <http://www.oregon.gov/deq/RulesandRegulations/Pages/Advisory/ballast2016.aspx> ,
* Emailing NUMBER OF PARTIES interested parties on the following DEQ lists through GovDelivery:
	+ TOPIC
	+ TOPIC
	+ TOPIC
* Emailing NUMBER OF PARTIES stakeholders on the Enter other mailing lists here
* Emailing the following key legislators required under [ORS 183.335](http://www.leg.state.or.us/ors/183.html):
	+ Enter name, title, committee here.
	+ Enter name, title, committee here.
	+ Enter name, title, committee here.
* Emailing advisory committee members,
* Postings on Twitter and Facebook
* Posting on the DEQ event calendar: [DEQ Calendar](http://oregon.gov/deq/Pages/Events.aspx)
* Enter other notices here
* Publishing notice in the following newspapers:

(choose the appropriate ones and delete the rest)

* *The Oregonian* PUBLICATION DATE
* *East Oregon (Pendleton)* PUBLICATION DATE
* *Register Guard (Eugene)* PUBLICATION DATE
* *Mail Tribune (Medford)* PUBLICATION DATE
* *Klamath Herald & News (Klamath Falls)* PUBLICATION DATE
* *La Grande Observer (La Grande)* PUBLICATION DATE
* *Daily Journal of Commerce* PUBLICATION DATE

Public hearings

DEQ plans to hold one public hearing. The table below provides the details.

DEQ will add the names, addresses and affiliations of all hearing attendees to the interested parties list for this rule if provided on a registration form or the attendee list. DEQ will consider all written comments received at the hearings listed below before completing the draft rules. DEQ will summarize all comments and respond to comments in the Environmental Quality Commission staff report.

|  |
| --- |
| Hearing 1 |
| Date | **May xx, 2016** |
| Time | **tbd** |
| Address Line 1 | **811 SW 6th Avenue** |
| Address Line 2 | 10th Floor |
| City | Portland |
| Presiding Officer | Tbd |
| Staff Presenter | Rian vanden Hooff |
| Call-in Phone Number | Tbd |
| Call-in Phone ID Code | Tbd |

Close of public comment period

The comment period will close 4 p.m. on xx May, 2016.

Accessibility Information

You may review copies of all documents referenced in this announcement at:

Oregon Department of Environmental Quality

811 SW Sixth Avenue

Portland, OR, 97204

To schedule a review of all websites and documents referenced in this announcement, call Rian vanden Hooff, Portland, OR, 503-229-6865.(800-452-4011, ext. 5622 toll-free in Oregon).

Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format. To make these arrangements, contact DEQ, Portland, at 503-229-5696 or call toll-free in Oregon at 1-800-452-4011, ext. 5696; fax to 503-229-6762; or email to deqinfo@deq.state.or.us. Hearing impaired persons may call 711.

|  |
| --- |
| Formats used in this document Arial 14 bold, Text RGB 0-73-79, Box RGB 226-221-219  |

**DELETE THIS PAGE BEFORE PUBLISHING**

Subsection title Ariel 11

Level 1 text -- Times Roman 12 Level 2 text

1. Level 2 text

a. Level 3 text

b. Level 3 text

c. Last text

1. Level 2 text
* Level 1 bullet 1
	+ Level 2 bullet
	+ Level 2 bullet
	+ Last bullet
* Level 1 bullet

| Table # (Arial 11)**Table Title – (RGB 0-130-114 Bold Arial 13)** |
| --- |
| Column header (RGB 177-221-205 Arial 11) | Column header (RGB 177-221-205) |
| RGB 223-241-235 Arial 10 | RGB 223-241-235 Arial 10 | RGB 223-241-235 Arial 10 | RGB 223-241-235 Arial 10 |  |
| Times Roman 121 | OR Times Roman 11 | OR Times Roman 10 |  |  |
|  |  |  |  |  |
| 1.5 pt | 1.5 pt 3 pt | 3 pt 1.5 pt | 1.5 pt |  |
|  |  |  |  |  |
|  |  |  |  |  |

1 Footnote Times Roman 12

**WORD PROBLEM**

The extra column on the right corrects a Word error that prevents vertical alignment in last column of a Word table.

Maggie 5/1/2012

2 Footnote Times Roman 12