

# **State Wetland Protection**

Status, Trends, & Model Approaches

A 50-state study by the Environmental Law Institute

With support from the U.S. Environmental Protection Agency

2008

# **Appendix: State Profiles**

# Oregon

#### I. Overview

The State of Oregon has lost approximately 38 percent of its wetlands—including tidal flats and marshes along the coastline, as well as interior marshes and swamps—to various land use changes such as agriculture and urban development. Multiple state agencies participate in wetlands protection and regulation. The primary agency involved in state wetland activity is the Oregon Department of State Lands (ODSL), although the Oregon Department of Environmental Quality (ODEQ), Oregon Department of Forestry (ODF), Oregon Parks and Recreation Department (OPRD), Oregon Department of Land Conservation and Development (ODLCD), and the Oregon Watershed Enhancement Board (OWEB) also have wetland-related programs. Various other agencies, such as the Oregon Department of Fish and Wildlife (ODFW), provide technical expertise related to wetland habitat and state permits.

# **II. Regulatory Programs**

#### Wetland definitions and delineation

Oregon explicitly includes wetlands in its definition of waters of the state. Under the state's Removal-Fill law, "waters of this state" are defined as "natural waterways including all tidal and nontidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in [the] state, navigable and nonnavigable, including that portion of the Pacific Ocean which is in the boundaries of [the] state." Wetlands include "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions."

ODSL works closely with the U.S. Army Corps of Engineers' Portland District and U.S. Environmental Protection Agency (EPA) Region X in issuing wetland delineation guidelines.<sup>4</sup> ODSL also adopted regulations for wetland delineation reporting.<sup>5</sup> These additional requirements supplement those outlined in the Corps' 1987 *Wetlands Delineation Manual*.<sup>6</sup>

#### Wetland-related laws and regulations

The primary form of regulation for wetlands at the state level is Oregon's Removal-Fill Law. Local planning initiatives that address wetlands are also addressed at the state level through the Statewide Land Use Planning Program, administered by ODLCD.

<sup>&</sup>lt;sup>1</sup> Thomas E. Dahl, U.S. Fish and Wildlife Service, *Wetlands Losses in the United States 1780's to 1980's, Summary of Findings 1780's to 1980's, at* http://www.npwrc.usgs.gov/resource/wetlands/wetloss/findings.htm (last modified Aug. 3, 2006).

<sup>&</sup>lt;sup>2</sup> OR. REV. STAT. § 196.800(15).

<sup>&</sup>lt;sup>3</sup> OR. REV. STAT. § 196-800(17).

<sup>&</sup>lt;sup>4</sup> Personal Communication with Janet Morlan, Wetland Program Manager, Or. Dep't of State Lands (Jul. 6, 2005).

<sup>&</sup>lt;sup>5</sup> OR. ADMIN. R. § 141-090-0030 and 141-090-0035.

<sup>&</sup>lt;sup>6</sup> U.S. Army Corps of Engineers, Wetlands Research Program Technical Report Y-87-1, Corps of Engineers Wetlands Delineation Manual (1987), *available at* http://el.erdc.usace.army.mil/elpubs/pdf/wlman87.pdf.

Oregon's Removal-Fill Law. Under the 1967 Removal-Fill Law, a permit from ODSL is required to remove or fill 50 cubic yards or more of material in state waters. A permit is required to remove any amount of fill material in areas designated as essential salmonid habitat or in state scenic waterways. The law applies to all landowners, whether private individuals or public agencies. A separate law regulates activities that occur on the ocean shore, requiring a permit from the Parks and Recreation Department. Estuaries are regulated by ODSL under the Removal-Fill Law; however, ODSL rarely contends with fill permits for estuarine wetlands due to the high degree of protection afforded estuaries in state-approved estuary plans. Oregon allows the following options for compensatory mitigation: on-site mitigation; off-site mitigation; payment to provide for mitigation; and the purchase of credits from a mitigation bank.

*Oregon Wetlands Mitigation Bank Act*. <sup>12</sup> The Oregon Mitigation Bank Act of 1987 establishes a program for private or public mitigation banks under the authority of ODSL. <sup>13</sup>

Local wetland protection initiatives. Statewide planning goals and guidelines direct local governments to provide some wetland regulation/protection. Statewide planning Goal 5 relates to natural resources, scenic and historic areas, and open spaces. Local governments are required to inventory natural resources, including wetlands. ODSL established the wetland inventory requirements in administrative rule and approves all inventories. Based on the approved inventory, cities and counties develop a "significant wetland" protection program that must be reviewed and approved by ODLCD. Approximately 60 cities have developed and adopted wetland inventories that have been approved by ODSL. Many of these cities have adopted wetland protection programs as well.

Other statewide planning goals also address wetlands. Significant wetlands located within coastal shoreland areas, as defined in statewide planning Goal 17, also require enhanced local government protection. Oregon's estuarine habitats receive a high degree of protection through estuary plans developed in the 1970s, as required under Goal 16: Estuarine Resources.

<sup>&</sup>lt;sup>7</sup> OR. REV. STAT. §§ 196.795 – 196.990.

<sup>&</sup>lt;sup>8</sup> OR. REV. STAT. § 196.850.

<sup>&</sup>lt;sup>9</sup> OR. REV. STAT. § 196.810(b).

<sup>&</sup>lt;sup>10</sup> OR. REV. STAT. § 390.640.

<sup>&</sup>lt;sup>11</sup> Morlan, *supra* note 4.

<sup>&</sup>lt;sup>12</sup> OR. REV. STAT. §§ 196-600 – 196-655.

<sup>&</sup>lt;sup>13</sup> See Or. Rev. Stat. § 196-610.

<sup>&</sup>lt;sup>14</sup> Or. Admin. R. § 660-015-0000(5).

<sup>&</sup>lt;sup>15</sup> OREGON'S STATEWIDE PLANNING GOALS AND GUIDELINES, GOAL 5: NATURAL RESOURCES, SCENIC AND HISTORIC AREAS, AND OPEN SPACES (1996), *available at* http://egov.oregon.gov/LCD/docs/goals/goal5.pdf (last visited Sept. 12, 2007).

<sup>&</sup>lt;sup>16</sup> Morlan, *supra* note 4.

<sup>&</sup>lt;sup>17</sup> One of Oregon's most notable local wetland initiative successes has been the City of Eugene, which protected a significant amount of wetland through an ODSL-approved conservation plan that allows expedited permit review from ODSL and the U.S. Army Corps of Engineers. *Id.* 

<sup>&</sup>lt;sup>18</sup> Personal Communication with Dale Blanton, Or. Dep't of Land Conservation and Dev. (Oct. 26, 2005).

As a result of these plans, approximately 78 percent of the state's tidal wetlands are zoned for protection, and there has been very little loss of tidal wetlands since the 1970s. <sup>19</sup>

ODSL approves the wetlands inventories and wetland function and condition assessment developed for Goal 5, Goal 17 or a Wetland Conservation Plan; ODLCD must approve the local plan and implementing ordinances. <sup>20</sup>

*Oregon Forest Practices Act.* The Oregon Department of Forestry (ODF) implements the Forest Practices Act (FPA). Rules governing activities in wetlands were first adopted in 1987. ODF regulates forest management activities in forest lands by identifying "significant wetlands" and requiring best management practices to protect those resources. ODSL does not require a separate permit for activities in wetlands that are covered by the FPA.<sup>21</sup>

#### Organization of state agencies

Oregon Department of State Lands. In addition to administering the Removal-Fill Law, ODSL maintains the Statewide Wetlands Inventory (SWI).<sup>22</sup> The SWI consists of the National Wetlands Inventory, developed by the U.S. Fish and Wildlife Service, and Local Wetlands Inventories, which are developed by cities and counties according to standards set by ODSL. ODSL assists local governments with developing Local Wetlands Inventories and wetland protection programs.<sup>23</sup>

ODSL management of wetlands is centralized and administered primarily from Salem, which operates with 21 professional staff and 6 support staff. ODSL's approximate biannual budget is between \$3.5 million and \$3.7 million. About \$400,000 of this budget comes from fees; the remainder is funded by revenue from state-owned lands (e.g. forestry, leases, etc.).<sup>24</sup>

Oregon Department of Environmental Quality. ODEQ administers the §401 certification program for the state. The §401 program operates from the Northwest Region Office in Portland. One full-time equivalent (FTE) staff and one limited duration staff work in the §401 program, which reviews federal actions impacting any waters of the state, including wetlands.<sup>25</sup>

Oregon Watershed Enhancement Board. OWEB administers the state's watershed enhancement program, which conducts activities related to wetland acquisition and restoration. Approximately \$20 million from constitutionally-dedicated state lottery funds is available to fund watershed restoration annually. Additional federal funds are available through the Pacific

<sup>&</sup>lt;sup>19</sup> Personal Communication with Janet Morlan, Wetland Program Manager, Or. Dep't of State Lands (Aug. 15, 2007).

<sup>&</sup>lt;sup>20</sup> Morlan, *supra* note 4.

<sup>&</sup>lt;sup>21</sup> OR. REV. STAT. § 527.

<sup>&</sup>lt;sup>22</sup> Department of State Lands, *Statewide Wetland Inventory*, *at* http://egov.oregon.gov/DSL/WETLAND/swwi.shtml (last visited Sept. 12, 2007).

<sup>&</sup>lt;sup>23</sup> Morlan, *supra* note 19.

<sup>&</sup>lt;sup>24</sup> Personal Communication with Janet Morlan, Wetlands Program Manager, Or. Dep't of State Lands (Oct. 14, 2005).

<sup>&</sup>lt;sup>25</sup> Personal communication with L. Alexandra Cyril, 401 Water Quality Certification Coordinator, Dep't of Envtl. Quality Coordinator (May 21, 2007).

Salmon Recovery Fund, but these are used primarily for education, monitoring, and assessment.<sup>26</sup> Although wetlands are integrated with many OWEB activities, staff are not specifically dedicated to wetland issues.

Oregon Department of Land Conservation and Development. ODLCD is the lead coastal management agency and is involved in federal actions for wetland permits. The agency also administers the Statewide Land Use Planning Program, including activities associated with statewide planning goals. Federal funds authorized by the Coastal Zone Management Act provide for two FTEs, based in Salem, to work with state and federal permits; one of those FTEs also reviews federal activities under the Coastal Zone Management Act. ODLCD also works with local governments on requirements for wetland planning, provides planning assistance grants, and is responsible for approving wetland protection programs to ensure that they meet state guidelines. East of the coastal Zone Management activities under the Coastal Zone Management activities under the Coastal Zone Management activities works with local governments on requirements for wetland planning, provides planning assistance grants, and is responsible for approving wetland protection programs to ensure that they meet state guidelines.

#### §401 certification

ODEQ oversees §401 certification and issues approximately 150 certifications each year. Water quality certification is issued if a project can be conditioned to be consistent with the state's water quality standards, programs, and policies. Evaluations require extensive review and collaboration with other state and federal agencies. Certifications are rarely issued for projects as proposed, but are frequently issued with conditions. Some certifications have been denied or become waived due to inaction within 365 days.<sup>29</sup>

# Nationwide and statewide permits

ODEQ reviews and evaluates the Corps' nationwide permits (NWPs) pursuant to issuance of \$401 certification. Individual NWP categories may be certified, partially certified, or denied. ODLCD also provides ongoing review of NWPs. Certain NWPs receive advance concurrence for coastal zone requirements, often with conditions. A permittee seeking approval of a project under a NWP must demonstrate that the project is consistent with the requirements of the relevant local comprehensive plan and land use regulations, which include wetland protections and other statewide planning provisions (based on an ODLCD-approved local conservation plan), and obtain local government approval. ODLCD reviews NWP permits on a case-by-case basis, depending on the nature of the project and the relationship with protected resource areas. 32

Effective January 3, 2006, a new statewide programmatic general permit (SPGP) allowed ODSL to issue a Corps authorization along with a state permit for ½-acre or less of wetland fill and/or

<sup>&</sup>lt;sup>26</sup> Personal Communication with Ken Bierly, Or. Watershed Enhancement Bd. (Jul. 13, 2005).

<sup>&</sup>lt;sup>27</sup> Federal licenses and permits must be consistent with the state's enforceable policies, including statewide planning goals, local comprehensive plans and land use regulations, and the requirements of networked state agencies (e.g. ODSL removal fill requirements, ODFW protections, ODEQ water quality requirements, etc.) Personal Communication with Dale Blanton, Or. Dep't of Land Conservation and Dev. (Jul. 28, 2005).

<sup>&</sup>lt;sup>28</sup> Personal Communication with Janet Morlan, Wetlands Program Manager, Or. Dep't of State Lands (Nov. 3, 2005).

<sup>&</sup>lt;sup>29</sup> Cyril, *supra* note 25.

<sup>&</sup>lt;sup>30</sup> Personal Communication with Tom Melville, Or. Dep't of Envtl. Quality (Oct. 31, 2005).

<sup>&</sup>lt;sup>31</sup> Blanton, *supra* note 18.

<sup>&</sup>lt;sup>32</sup> OR. ADMIN. R. § 660-015-0010(16); Blanton, *supra* note 18.

up to 1,000 cubic yards of material for eight specified activities.<sup>33</sup> The new SPGP altered the permitting process in Oregon, as certain NWPs were suspended by the U.S. Army Corps of Engineers and replaced with a general permit. The SPGP was suspended October 1, 2006.<sup>34</sup>

## Mitigation

Oregon requires compensatory mitigation for all wetland permits and allows for mitigation to be met through on- and off-site mitigation, payment in lieu, and mitigation banking.<sup>35</sup> State law requires that a mitigation sequence (identical to federal law) be followed, requiring applicants to avoid and minimize wetland impacts as much as possible before considering compensatory mitigation. State rules establish the following wetland replacement ratios for compensatory mitigation: 1:1 for restoration; 1.5:1 for creation; 3:1 for enhancement; and 2:1 for enhancement of cropped wetlands.<sup>36</sup> These ratios apply to both compensatory mitigation and mitigation banks. However, mitigation banks can add additional ratios and criteria, such as the ecological value of the habitat. For rare habitats, such as vernal pools, ODSL may consider conservation as a mitigation option.<sup>37</sup>

The Oregon Mitigation Bank Act of 1987 established a mitigation banking program administered by the ODSL. The state currently has 13 approved mitigation banks. Twelve of these are private and one is managed by the City of Eugene. Several additional banks are in development. To help explain the state's mitigation banking policies, ODSL produced the EPA-funded *Wetland Mitigation Guidebook for Oregon*. ODSL is attempting to establish maintenance endowments to address the lack of funds for bank maintenance and problems with weeds and invasive species. 41

Oregon actively participates on a Mitigation Banking Review Team (MBRT) in coordination with the Corps' Portland District. ODSL and the Corps jointly chair the MBRT, which also comprises representatives from ODEQ, ODLCD, ODFW, U.S. Fish and Wildlife Service, EPA, Soil and Water Conservation Districts, and local government planners. The MBRT operates by consensus and serves in an advisory capacity to ODSL and the U.S. Army Corps of Engineers.

<sup>&</sup>lt;sup>33</sup> The eight activities are as follows: (1) stream bank stabilization; (2) water control structures; (3) utility lines; (4) road repairs and improvements; (5) building site preparation; (6) stream and wetland restoration activity; (7) minor fill and removal for activities such as cleaning boat ramps and seismic activity; and (8) piling installation and removal. Personal Communication with Eric Metz, Or. Dep't of State Lands (Jul. 7, 2005).

<sup>&</sup>lt;sup>34</sup> Cyril, *supra* note 25.

<sup>&</sup>lt;sup>35</sup> Or. Admin. R. § 141-085-0115 (2); Or. Admin. R. § 141-085-0263; & Or. Admin. R. § 141-085-0400 et seq. <sup>36</sup> Or. Admin. R. § 141-085-0136.

<sup>&</sup>lt;sup>37</sup> Personal Communication with Dana Field, Or. Dep't of State Lands (Jul. 7, 2005).

<sup>&</sup>lt;sup>38</sup> *Id*.

<sup>&</sup>lt;sup>39</sup> Field, *supra* note 37.

<sup>&</sup>lt;sup>40</sup> OREGON DEPARTMENT OF STATE LANDS, WETLAND MITIGATION BANKING GUIDEBOOK (2000), available at http://egov.oregon.gov/DSL/PERMITS/mit\_guidebook\_intro.shtml.

<sup>&</sup>lt;sup>41</sup> Field, *supra* note 37.

<sup>&</sup>lt;sup>42</sup> OR. ADMIN. R. § 141-085-0421(8)(a).

<sup>&</sup>lt;sup>43</sup> OR. ADMIN. R. § 141-085-0421(9)(f).

#### Compliance and enforcement

The state considers non-compliance with the Removal-Fill Law a public nuisance. 44 ODSL officials are authorized to investigate, hold hearings, make orders, and take action on suspected violations. 45 A variety of enforcement options are available, including injunctions and civil penalties of not more that \$10,000 per day of violation. 46 If a violation is found, problems are more typically handled administratively – court action is rarely pursued. 47 In 2003-2004, the ODSL assessed \$101,613 in civil penalties for 12 violations. All but one of these was paid within one year of assessment. ODSL also monitors compliance and found that 70 percent of monitored projects were in compliance in 2003-2004. 48

Criminal sanctions are also possible if the Oregon state police issue a criminal citation for the public nuisance.<sup>49</sup> Criminal sanctions are very rare, and when they occur ODSL acts in a supporting role for the state police.

#### Tracking systems

The ODSL Land Administration System tracks permit types and processing, compensatory mitigation, and violations. The system also tracks wetland losses and gains, although it is difficult to track gains from in-lieu-fee payment as funds are commingled. Wetland delineations are also tracked. In addition, OWEB tracks restoration and acquisition activities in a statewide watershed restoration database.

# III. Water Quality Standards

Oregon has not adopted water quality standards, designated uses, or anti-degradation standards specific to wetlands. While not specific to wetlands, the anti-degradation standards apply to "waters of the state," which include wetlands, and are the strongest enforcement tool of ODEQ. Under the anti-degradation standard, one cannot discharge untreated or unmanaged water. <sup>50</sup> The ODEQ incorporates load allocations and water quality management plan recommendations from EPA-approved total maximum daily loads (TMDLs) into its §401 program. <sup>51</sup>

# IV. Monitoring and Assessment

# Monitoring and assessment for wetlands

Oregon's wetland monitoring program is limited to wetland function and value assessment for permit applications and targeted studies on wetland status and trends. The state has developed a hydrogeomorphic (HGM) guidebook for the Willamette Valley (the state's most populated region) and another HGM guidebook for the tidal wetlands. Use of HGM guidebooks for state

<sup>&</sup>lt;sup>44</sup> Or. Rev. Stat. § 196-855.

 $<sup>^{\</sup>rm 45}$  Or. Rev. Stat.  $\S$  196-860.

<sup>&</sup>lt;sup>46</sup> OR. REV. STAT. §§ 196-870 & 196-890.

<sup>&</sup>lt;sup>47</sup> Personal Communication with Lori Warner-Dickson, Or. Dep't of State Lands (Jul. 11, 2005).

<sup>&</sup>lt;sup>48</sup> Metz, *supra* note 33.

<sup>&</sup>lt;sup>49</sup> Warner-Dickson, *supra* note 47.

<sup>&</sup>lt;sup>50</sup> Melville, *supra* note 30.

<sup>&</sup>lt;sup>51</sup> Cyril, *supra* note 25.

permit applications is the preferred wetland assessment method.<sup>52</sup> ODSL is also in the process of developing a rapid wetland assessment procedure for statewide use and hopes to have it in place before 2009. The primary purpose of the procedure will be to support permitting activities.

ODSL has also collaborated with other state and federal agencies to conduct wetland status and trends research. An initial study, *Wetland and Land Use Change in the Willamette Valley*, *Oregon:* 1982-1994, was published in 1998, and a follow-up study extending the change analysis to 2005 is close to completion. A wetland change mapping project for the Oregon coast (tidal and nontidal wetlands) is also near completion. <sup>53</sup>

The state does not actively support a volunteer wetland monitoring program, although local watershed councils occasionally involve volunteers.<sup>54</sup>

ODSL's wetland monitoring program is separate from the surface water quality monitoring program administered by ODEQ. The methodology for the two programs differs, but TMDL standards are incorporated into ODSL regulations.<sup>55</sup>

# Monitoring and assessment for streams

Extensive cooperative monitoring of freshwater resources is aimed especially at salmonid species and the habitats that support them. ODFW conducts a spatially balanced random sampling of coastal streams for juvenile, spawning adult, and fish habitat. ODEQ uses the same sample frame for characterizing water quality (physical and chemical parameters) and macroinvertebrate and vertebrate faunas. Monitoring of streams is coordinated through the Oregon Plan Monitoring Team. <sup>56</sup>

#### V. Restoration

The Oregon Watershed Enhancement Board (OWEB) administers the state's watershed enhancement program, which focuses on the protection and restoration of naturally functioning habitats. The program was established, partially, as a result of salmon listing and water quality degradation and assists with salmon recovery and water quality improvement. Funding for OWEB's activities comes from the state lottery and is used for land acquisition, watershed restoration, technical assistance, monitoring, watershed assessment, outreach, and education.

Acquisition of property is prioritized based on critical habitats for species and operates through grants provided by OWEB. When OWEB acquires a property interest, it does not hold title but instead receives a conservation easement over each parcel of land. OWEB is establishing a program to monitor the protection value for which easements are placed. While the current focus is on habitat, OWEB is in the process of developing regional restoration priorities.<sup>58</sup>

<sup>&</sup>lt;sup>52</sup> OR. ADMIN. R. § 141-085-0121(11).

<sup>&</sup>lt;sup>53</sup> Morlan, *supra* note 19.

<sup>&</sup>lt;sup>54</sup> Personal Communication with Janet Morlan, Oregon Department of State Lands (Jul. 7, 2005).

<sup>55</sup> Id

<sup>&</sup>lt;sup>56</sup> Personal Communication with Ken Bierly, Oregon Watershed Enhancement Board (Dec. 28, 2005).

<sup>&</sup>lt;sup>57</sup> Bierly, *supra* note 26.

<sup>&</sup>lt;sup>58</sup> *Id*.

OWEB follows statewide goals of no net loss of freshwater wetlands and a net gain of 250 acres per year of estuarine wetlands.<sup>59</sup> The agency coordinates with several local, state, and federal agencies and programs to develop common regulatory standards and joint funding priorities.<sup>60</sup>

In 2005, ODSL obtained a three-year Wetland Demonstration Program Grant from EPA to evaluate and improve Oregon's voluntary wetland restoration efforts. Two wetland restoration specialists are dedicated to this effort, which includes technical assessment and improvements to the state's ability to accurately measure and track wetland acreage gains and gains in function and/or condition.<sup>61</sup>

#### VI. Public-Private Partnerships

OWEB's restoration activities are primarily implemented on private land through local organizations (watershed councils, soil and water conservation districts, etc.). OWEB also works with watershed councils and funds 57 groups that cover the entire state. The councils are expected to focus on restoration within their geographic boundaries and receive support through two-year grants. Councils bring projects to OWEB and compete for funding. Councils also often have corporate partners that may provide an additional source of funding for projects. <sup>62</sup>

#### VII. Education and Outreach

Both ODSL and OWEB conduct education and outreach activities. ODSL publishes an electronic newsletter that typically includes wetland-related discussion. ODSL also hosts a monthly technical advisory group that consists of state agencies and interested citizens. ODSL conducts some citizen workshops and provides information and training for private consultants, but these are few due to limited staff time. OWEB conducts targeted outreach through local groups looking for specific activities, such as farmers interested in the USDA's Conservation Reserve Enhancement Program.

### VIII. Coordination with State and Federal Agencies

ODSL coordinates with other federal and state agencies, most notably the U.S. Army Corps of Engineers (e.g., on joint permit application and joint wetland delineation guidance) and EPA. ODSL has a memorandum of understanding (MOU) on gravel removal and coastal stream activities with the Corps. ODSL also holds MOUs with the ODEQ and the ODF. ODSL exempts activities covered by the Forest Practices Act. While joint enforcement of violations

<sup>63</sup> Morlan, *supra* note 54.

<sup>&</sup>lt;sup>59</sup> Morlan, *supra* note 54; Bierly, *supra* note 26.

<sup>&</sup>lt;sup>60</sup> Bierly, *supra* note 26.

<sup>&</sup>lt;sup>61</sup> Morlan, *supra* note 19.

<sup>62</sup> T.J

<sup>&</sup>lt;sup>64</sup> Bierly, *supra* note 26.

with the ODF is possible and has occurred, it is rare.<sup>65</sup> ODSL works closely with ODLCD on state-local wetland planning efforts and approvals and with several agencies on the MBRT.

# IX. Acronyms and Abbreviations

EPA – U.S. Environmental Protection Agency

FPA – Forest Practices Act

FTE – Full-Time Equivalent

HGM – Hydrogeomorphic

MBRT - Mitigation Banking Review Team

MOU – Memorandum of Understanding

NWI – National Wetlands Inventory

NWP - Nationwide Permit

ODEQ - Oregon Department of Environmental Quality

ODF – Oregon Department of Forestry

ODFW - Oregon Department of Fish and Wildlife

ODLCD - Oregon Department of Land Conservation and Development

ODSL – Oregon Department of State Lands

OPRD – Oregon Parks and Recreation Department

OWEB - Oregon Watershed Enhancement Board

SPGP – Statewide Programmatic General Permit

TMDL – Total Maximum Daily Load

<sup>&</sup>lt;sup>65</sup> *Id*.