

# Oregon Department of State Lands

## *Removal-Fill Report Fiscal Years 2009 and 2010*

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**Wetlands and Waterways Conservation Division**



## Executive Summary

The Department of State Lands (DSL) protects the state's waterways and wetlands through administration of Oregon's Removal-Fill Law, enacted in 1967, to conserve, restore and protect water resources for their contribution to aquatic life and habitats, fisheries, aquatic-based economies, tourism, public recreation, navigation, water quality, floodwater storage and other natural resource functions.

This report for fiscal years 2009 and 2010 fulfills the annual report requirement in the state's Removal-Fill Law. Following is a summary of some of the notable items DSL has accomplished over these two fiscal years:

- DSL undertook a significant rewrite of Division 85 removal-fill rules to better track the program and promote public understanding of and compliance with the law. The rule revisions became effective March 1, 2009.
- Authorization over the past two fiscal years of 2,871 removal-fill activities throughout the state.
- Delivery of expedited services by the DSL Economic Revitalization Team liaison to prepare industrial lands for development including rapid assessment of approximately 140 candidate sites for potential wetland issues, additional technical assistance provided for 34 sites, and participation in nine regional Economic Revitalization Teams. DSL lead staff served as chairperson for three of the nine teams.
- Coordination with the US Army Corps of Engineers in developing three joint state and federal permits for certain removal-fill activities.
- Creation of a statutory exemption for certain stream restoration activities to encourage recovery efforts for salmon and other species.
- Movement towards a more outcome-based and less prescriptive regulatory process.
- Increased compliance and enforcement efforts to protect waters of the state.
- Approval of five new mitigation banks increasing to 20 the number of such banks providing compensation for wetland impacts from authorized activities.
- Leadership on a gravel task force consisting of federal, state and local regulatory agencies and the gravel industry to work through issues related to gravel extraction in Oregon coastal rivers.
- Recording a net gain of 356 acres of wetlands and over 3,600 acres of wetlands enhancement due to permit actions.
- Leadership on the DSL/Oregon Trout Oregon Solutions project related to supporting and expediting stream restoration projects and significant contributions to other Oregon Solutions projects including those related to resolving the Tillamook flooding problem and wave energy.
- Receiving a total of \$565,791 in fees for payment-in-lieu mitigation into the Oregon Removal-Fill Mitigation Fund and supporting three wetland restoration projects with a total of \$1,016,151 from the Fund.

## **Introduction**

This document has been prepared by the Oregon Department of State Lands (DSL) to fulfill the annual report requirement in the state's Removal-Fill Law (ORS 196.885) and covers the fiscal years of 2009 and 2010. A fiscal year for Oregon state government is July 1<sup>st</sup> through June 30<sup>th</sup>. This report presents summary statistics for important aspects of the Removal-Fill Program, including the following topics:

- Authorizations
- Essential Indigenous Anadromous Salmonid Habitat
- Compliance Monitoring
- Enforcement Activities
- Contested Case Hearings
- Removal-Fill Rulemaking
- Removal-Fill Permit Streamlining
- Public Information and Outreach
- Wetlands Conservation and Planning Program
- Industrial Site and Wetland Planning Assistance
- Compensatory Wetland Mitigation

Permit, compliance monitoring, enforcement, wetland delineation, and wetland land use notice data collected for this report were drawn from DSL's Land Administration System (LAS) unless specified otherwise. Authorizations are categorized by issue date and activity. Civil penalties received and payment-in-lieu (PIL) amounts are derived from DSL's cash receipts system unless stated otherwise. Additional information and supporting data is available upon request from DSL.

## **Section 1 - Oregon's Removal-Fill Program**

Oregon's Removal-Fill Law (ORS 196.795-990), enacted in 1967, generally requires anyone who plans to remove or fill material within waters of the state, including wetlands, to obtain an authorization from the Department of State Lands.

The purpose of the law is to protect the state's aquatic resources and public navigation, fishery, and recreational uses of the waters. "Waters of this state" means all natural waterways, tidal and nontidal bays, intermittent streams, constantly flowing streams, lakes, wetlands, that portion of the Pacific Ocean that is in the boundaries of this state, all other navigable and non-navigable bodies of water in this state, and those portions of the ocean shore, as defined in ORS 390.605, where removal or fill activities are regulated under a state-assumed permit program as provided in 33 U.S.C. 1344(g) of the Federal Water Pollution Control Act, as amended. "Wetlands" means 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.

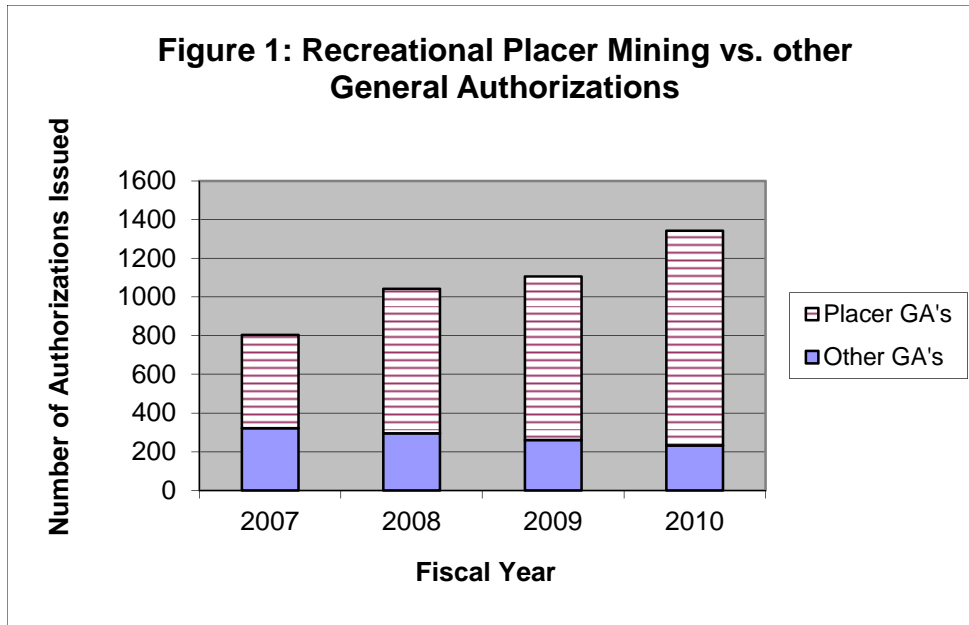
The law applies to all landowners, including private individuals, businesses and public agencies. The law has a general 50 cubic-yard volume exemption except for proposed activities in Essential Indigenous Anadromous Salmonid Habitat or State Scenic Waterways. There are limited exemptions for some specific activities, such as ongoing agricultural activities. DSL issues authorizations in the form of Individual Permits, General Permits, General Authorizations, and Emergency Authorizations.

### **Removal-Fill Program Activities**

DSL issued permits and authorizations over the last two fiscal years (FY 2009 and FY 2010). Table 1 shows, by category and fiscal year, the total number of each type of permit or authorization issued. The table also shows a subtotal of authorizations located within essential salmonid habitat. With the passage of HB 2105 in the 2007 legislative session, DSL was granted authority to issue general permits for activities that are substantially similar in nature, recurrent or ongoing, and have predictable effects and outcomes. DSL issued three general permits in 2009. These are discussed in Section 2.

The Department issued a total of 1,106 general authorizations (GAs) in FY 2009 of which 845 were for recreational placer mining, and 1,344 GAs in FY 2010 of which 1,110 were for recreational placer mining. The GAs contain best management practices for avoiding or minimizing adverse effects in riparian and aquatic habitat areas. Note – due to action by the 2001 Oregon Legislature (Oregon Laws 2001, Chapter 499, section 4), the Department is no longer authorized to issue permits for dredging related to recreational placer mining on scenic waterways, effective January 1, 2006.

One interesting trend is an increase in the number of general authorizations issued for recreational placer mining. The number of authorizations issued has increased 230 percent in the past four years from 482 in 2007 to 1,110 in 2010. It is important to note these figures are for authorizations issued, and that anecdotal evidence indicates many authorizations are never utilized. Regardless, the data show an increased interest in recreational placer mining in Oregon. The Department will monitor this trend and is looking at ways to collect better information regarding the extent and effects of recreational placer mining activities.



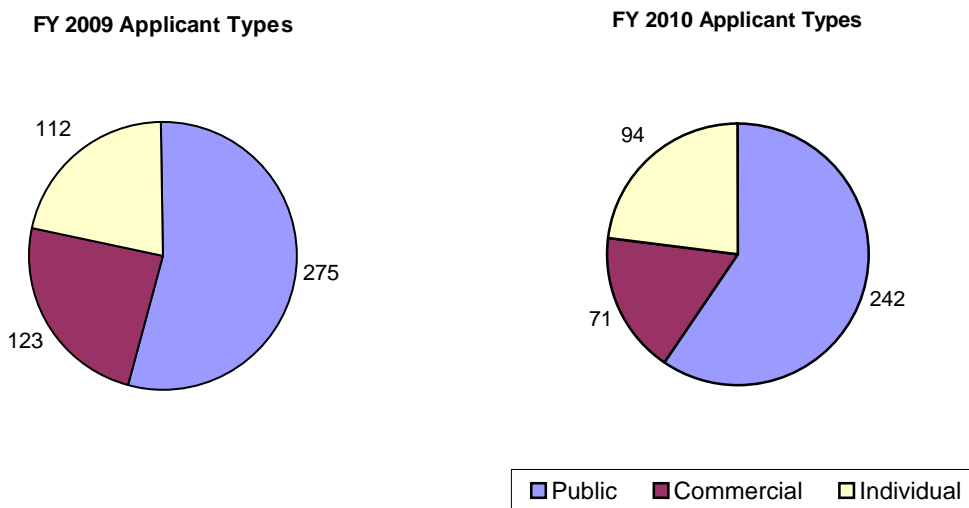
**Table 1 – Removal-Fill Authorizations by type and activity and location within essential salmonid habitat (ESH).**

<b>Authorizations</b>	<b>2009</b>	<b>2009 ESH</b>	<b>2010</b>	<b>2010 ESH</b>
<b>Individual Permits</b>				
Boat Ramp	5	4	6	4
Channel Relocation	5	3	2	1
Dam Related	11	6	5	3
Dock	3	3	5	4
Erosion Control	13	6	5	4
Fish Habitat	11	6	4	3
Commercial Gravel Removal	1	1	1	1
Maintenance Dredging	10	8	10	6
Marina/Moorage	2	0	1	1
Pilings	6	5	4	2
Pipeline/Cable/Utility	15	8	11	5
Ponds	0	0	2	0
Roads/Bridges	21	6	15	7
Sediment Removal Behind Tide Gates	0	0	0	0
Wetland Enhancement	3	1	11	2
Wetland Fill	69	4	33	5
Other In-Water Work	22	12	34	13
<b>Subtotal</b>	<b>197</b>	<b>73</b>	<b>149</b>	<b>61</b>
<b>General Authorizations</b>				
Fish Habitat Enhancement	75	53	48	29
Wetland Enhancement/Restoration	13	3	9	2
Fish & Wetland Enhancement and Restoration (combined)	3	1	10	1
Streambank Stabilization	35	22	26	16
Transportation-Related	38	24	64	40
Recreational Placer Mining	845	---	1110	---
Sediment Removal Behind Tide Gates	0	0	1	1
Minimal Disturbance (<2.0 CY)	39	32	36	35
Minor Impacts (<0.1 acre)	4	1	2	0
Piling Placement	26	17	29	27
Large Wood and Boulder	28	22	9	8
<b>Subtotal</b>	<b>1106</b>	<b>175</b>	<b>1344</b>	<b>159</b>
<b>Emergency Authorizations</b>				
Erosion	27	21	11	4
Roads/Bridges	11	6	4	4
Sediment Removal Behind Tide Gates	0	0	0	0
Pilings	1	0	1	1
Dam Related	0	0	0	0
Channel Relocation	0	0	0	0
Pipeline/Cable/Utility	6	3	5	5
Other In-Water Work	7	8	4	3
<b>Subtotal</b>	<b>52</b>	<b>38</b>	<b>25</b>	<b>17</b>
<b>Grand Total</b>	<b>1355</b>	<b>286</b>	<b>1518</b>	<b>237</b>

## **Type of Applicant**

DSL tracks three principal applicant types: public (e.g., cities, counties, state and federal agencies); commercial (e.g., residential developers, retailers and manufacturers); and individual (individual home owners, farmers and ranchers). The charts in Figure 1 show the relative proportion of the three categories of applicants receiving authorizations from DSL in fiscal years 2009 and 2010. Note that since recreational placer mining applicants are so numerous (see Table 1 above), those applicants are not included in Figure 2. Recreational placer miners are considered to be “individual” applicants. When placer miners are removed from the totals, a more representative statewide distribution of applicant types can be seen. Public applicants are the most numerous, followed by commercial and individual.

**Figure 2: Removal-Fill Permit Applicant Types**



## **Essential Indigenous Anadromous Salmonid Habitat (ESH)**

DSL and other state agencies in Oregon operate under the Oregon Plan for Salmon and Watersheds (the “Oregon Plan”). The purpose of the Oregon Plan is to restore Oregon’s wild salmon and trout populations and fisheries to sustainable and productive levels that will provide substantial environmental, cultural and economic benefits.

DSL’s essential salmonid habitat (ESH) regulations pre-date the Oregon Plan for Salmon and Watersheds. It was established by the 1993 Legislative Assembly and fully implemented by DSL in 1996. The law requires review of projects smaller than the normal 50 cubic-yard removal-fill threshold for activities occurring within stream reaches used for spawning or rearing of state and federally listed anadromous fish species.

Authorization is required for any amount of fill or removal, unless the activity is specifically exempted. Table 1 shows the subtotals of all authorizations for activities located with ESH.

DSL works with the Oregon Department of Fish and Wildlife to update the mapping layer for ESH to reflect more accurate mapping and also habitat reopened to salmonids and other species through recovery and restoration efforts. The update in March 2010 resulted in 20,095 miles of ESH streams in the state - an increase of 2,162 miles since the last update in 2001.

### **Compliance Monitoring of Permitted Activities**

Authorizations issued by DSL contain permit conditions intended to protect the state's water resources, navigation, fishing, and public recreation uses. Permit conditions include measures to minimize impacts during and after construction, as well as mitigation requirements to offset those impacts that cannot be avoided. DSL's compliance monitoring program evaluates:

- Whether projects were implemented in compliance with the overall construction conditions, and
- Whether mitigation, if required, was implemented successfully.

During FY 2009 and 2010, the Department conducted a detailed post-construction monitoring study under a grant from the U.S. Environmental Protection Agency (EPA). This study involved on-site inspection of 80 projects statewide, of which 22 had compensatory wetland mitigation conditions.

Based on site inspections, the compliance rate with overall construction conditions was 74 percent. Most of the non-compliance issues were related to failure to appropriately implement site stabilization and re-vegetation measures intended to minimize impacts from construction. For the authorizations with mitigation requirements, 64 percent were in compliance with the wetland mitigation conditions. Most of the non-compliance issues were related to failure to provide monitoring reports or failure to establish the required vegetation cover on wetland mitigation sites.

In addition to that study, DSL conducted a focused review of compensatory wetland mitigation sites. The Department reviewed 328 permits for compliance with mitigation monitoring conditions. Of those, 64 percent (209 sites) were in compliance with all of the permit performance standards and monitoring requirements. Approximately 36 percent (119 mitigation sites) were out of compliance, mostly for failure to submit monitoring reports. For 17 of those permits, the Department succeeded in obtaining compliance without the need to open an enforcement case and the Department is working on 51 others to achieve compliance.

During this reporting period, DSL opened 68 enforcement files for corrective action, mostly for failure to provide monitoring reports or failure to construct the mitigation site.

Most of the enforcement cases have been resolved (41 cases) through corrective actions, including civil penalties, updated monitoring reports or the purchase of mitigation credits to make up for mitigation shortfalls. The other enforcement cases are in the administrative process of resolution.

During the FY 2009-2010, the Department opened 8 enforcement cases for general permit (non-mitigation related) compliance issues. All of those cases have been resolved, or have a final order in place for implementation.

## **Enforcement of Unauthorized Activities**

To address unauthorized activities, DSL investigates complaints and makes inspections to determine whether removal-fill in waters of the state has occurred without a permit. If a violation of the Removal-Fill Law has occurred, the Department opens an enforcement case and resolves the violation through administrative procedures.

Nearly 75 percent of the cases for unauthorized activities are handled through a cooperative consent agreement with the alleged violator. If a cooperative agreement cannot be reached, the Department issues a proposed order, which is appealable through the administrative hearings process (contested case hearings). If no request for hearing is received, the Department issues a final order.

Table 2 - *Status of Complaints Received in FYs 2009 & 2010 related to Unauthorized Activities* summarizes the outcome of complaint investigations for the past two fiscal years.

Approximately 41 percent of the complaints that were investigated did not result in a violation confirmation. For those that were violations, nearly 74 percent are either resolved or have a final resolution in place (final consent agreement or final order). Only 21 cases do not have a final resolution in place. Several cases (22) were believed to be violations, but were closed because DSL did not have enough evidence to proceed with a proposed order.

Resolution of enforcement cases entailed civil penalties and corrective actions, if needed to protect waters of the state. Corrective actions included site restoration or mitigation (if restoration was not possible). At this time, the Department does not have reliable data to report the percentage of cases with a final outcome of restoration verses mitigation. However, at least 30 sites were restored, and 6 cases resulted in mitigation for the adverse effects.

**Table 2 - Status of Complaints Received in FYs 2009 & 2010 related to Unauthorized Activities**

<b>Outcome of Complaint Investigation</b>	
New Complaints Opened	278
Violations Confirmed	164
No jurisdiction or no violation	114
<b>Violation Status</b>	
Resolved, no further action required	81
Final resolution in place	40
Proposed resolution pending final agreement or order	10
Resolution in development	9
Unresolved contested cases	2
Closed - Inconclusive facts	22

Many enforcement actions resulted in civil penalties. Table 3 - *Summary of Civil Penalties Collected in FY 2009-2010*, provides a summary of the number of enforcement cases that resulted in civil penalties for FY 2009 and 2010.

**Table 3 - Summary of Civil Penalties Collected in FYs 2009 & 2010**

<b>Fiscal Year</b>	<b>Number of Cases</b>	<b>Civil Penalties Collected</b>
2009	29	\$45,452.00
2010	55	\$88,492.00
<b>Totals</b>	<b>84</b>	<b>\$133,944</b>

**Contested Case Hearings**

The Department received 33 requests for contested case hearings during FY 2009 and 2010. Four of them were related to a permit decision. The remaining 29 were in response to proposed enforcement orders. *Table 4 - Status of Contested Case Hearings Requested in FY 2009 and 2010*, provides a summary of the outcome and status of pending contested case hearings. Two additional contested cases related to enforcement, not shown on the table, are being stayed by bankruptcy proceedings.

Four cases (two permit and two enforcement related) were referred to the Court of Appeals. The Department has prevailed on two of them and two are still pending.

**Table 4 - Status of Contested Case Hearings Requested in FY 2009 and 2010**

	<b>DSL Action Upheld</b>	<b>Case Settled</b>	<b>Cases Withdrawn</b>	<b>Cases Pending</b>
<b>Permit Challenges</b>	2	0	1 <sup>1</sup>	1
<b>Enforcement Cases</b>	4	22	1 <sup>2</sup>	0

<sup>1</sup> The permit was withdrawn by the permittee.

<sup>2</sup> The case was withdrawn by the Department due to complications related to dissolution of the business entity involved.

## **Section 2 - Removal-Fill Permit Streamlining**

The Department's ongoing strategy is to focus on regulatory and technical support efforts where they will provide the most effective outcomes with the most efficient use of our limited resources. A critical component of this strategy is to develop streamlined permitting tools and processes that allow activities and projects with relatively low risk of environmental degradation to proceed with limited regulatory oversight, thereby freeing up DSL's staff and resources to focus on projects that are more complex or with greater potential adverse impacts to waters of the state. The Department is engaged in multiple alternative state/federal permit streamlining efforts including rule revisions, development of state general permits and more efficient use of general authorizations and exemptions.

The Department communicates with interested parties on a regular basis through the Removal-Fill Technical Advisory Committee and the Consultants Forum. The Department is a leader for the Stream Restoration Partnership and sits on the steering committee working collaboratively with private and public sector stakeholders to encourage and facilitate habitat restoration activities.

### **Removal-Fill Rule Revisions**

The Department undertook a major revision of Division 85 - the primary collection of rules that govern the removal-fill application and decision-making process – in 2009. The new rules are significantly shorter, flow better with the actual operation of the program, have undergone a “plain language” review, are less prescriptive and more outcome-based, and will be accompanied by a guidance document that further explains – in an interactive Web-based format – the requirements of the program. The new rules and guidance materials, in addition to other streamlining initiatives the agency is engaged in (as discussed below), are anticipated to result in improved applications from project proponents, thereby reducing agency review time and improving customer satisfaction.

### **State General Permits**

The Department is authorized, through the passage of HB 2105 in 2007, to develop state general permits that will allow for a streamlined authorization process for activities that are substantially similar in nature, recurrent or ongoing, and have predictable effects and outcomes. DSL issued three general permits in the 2009-2010 biennium:

- State General Permit for Removal-Fill and Mitigation of Impacts to Vernal Pool Wetlands in Jackson County.
- State General Permit for the Tenmile Lakes Basin Partnership.
- State General Permit for the U.S. Forest Service and Bureau of Land Management.

These general permits effectively pre-permit multiple removal-fill activities provided the parties follow the permit conditions. These permits reduce regulatory red tape for the permittees, while providing appropriate protection and conservation of the State's water resources. The activities are reviewed on an annual basis to ensure the permits are operating as planned and to allow identification of potential issues and modification of the permit, if needed.

DSL worked with the Army Corps of Engineers in developing these three general permits in order to align the processes and permit conditions with those of the Corps' streamlined permits. The Department is working with the Corps to develop additional joint state/federal general permits including one to allow aggregate harvesting in the Chetco River while providing protections for Endangered Species Act-listed salmon

### **General Authorizations and Exemptions**

The Department saw extensive use of general authorizations (GAs) in the 2009-2010 biennium (see Table 1 and Figure 2). The numbers for GAs other than for placer mining show a downward trend from the prior biennium as indicated by Figure 2. This is most likely due to the economic downturn that began in late 2007; individual permit applications show a similar trend.

The Department continues efforts to streamline its processes. In the interest of further facilitating habitat improvement efforts statewide and relieving the regulatory burden for projects with minimal impacts, DSL is in the process of revising the existing GAs to make them notice-based. Under a notice-based process, permittees will notify the Department of their intent to use a GA or GAs for an activity and will not have to wait for a review and response from the Department before proceeding with the project.

The Department is endeavoring to make it easier for parties to perform voluntary habitat restoration and improvement projects. There are currently three GAs that promote habitat improvement efforts – Fish Habitat Enhancement, Streambank Stabilization and Wetland Habitat Restoration. The 2009 Legislature, via HB 2155, gave the Department the authority to adopt a rule that exempts voluntary habitat restoration projects that have only minimal adverse impact on waters of the state. The Department developed that exemption by rule in early 2010 and was therefore able to repeal the general authorization for placement of large wood and boulders, as it was no longer needed.

### **Section 3 - Wetland Planning and Conservation Program**

The Wetlands Program was established by the legislature in 1989. Senate Bill 3 articulated several state wetland policy directives, including a no-net-loss-of-wetland goal, and established key program elements aimed at implementing those policies. Activities based on those elements are summarized below.

#### **Statewide Wetlands Inventory**

DSL is responsible for developing, maintaining and distributing the statewide wetlands inventory (SWI). The SWI is based upon the National Wetlands Inventory (NWI) developed by the U.S. Fish and Wildlife Service and includes Local Wetlands Inventories (LWI) covering many urban areas. NWI paper maps are available for the entire state, and digital NWI data is available for much of the state. DSL houses the state distribution center for paper NWI maps, which are sold at cost.

The NWI is superseded in approximately 68 cities by LWIs that are developed according to standards established in rule by DSL. LWIs have much more detailed and accurate wetland inventory information than the NWI. DSL approves all LWIs before they become part of the SWI. LWIs are used by cities and counties for planning purposes; they also provide good wetland location information for landowners and developers. DSL assists cities and their consultants with LWI development. Table 6 provides a list of LWIs (new and revised) approved by DSL during the biennium and a list of cities that received technical assistance with LWI development and approval.

**Table 5 - Local Wetlands Inventories**

<b>LWIs approved in FY 2009 and 2010</b>			
Damascus	Depoe Bay	Glenwood (Springfield)	
Hillsboro	Happy Valley		
<b>Technical &amp; Planning Assistance for Cities or Areas Considering or Initiating LWIs</b>			
Adair Village	Arch Cape	Scio	Bethany Area (Wash. Co)
Cottage Grove	Creswell	Monmouth	Bull Mtn. Area (Wash. Co)
Dunes City	Gearhart	Harrisburg	Benton Co. (portion)
Junction City	Lowell	Mill City	Deschutes Co. (portion)
Monroe	Newport	Pendleton	
Florence	Hermiston		

Digital map products available to the public over the Internet are increasingly important. DSL has been involved in several efforts to make wetland inventory information more readily available and usable, which has required cooperative efforts. The Oregon Watershed Enhancement Board provided significant funding for digitizing the remaining NWI maps for Oregon, which was completed during this reporting period. The U.S Fish & Wildlife Service now has digital layers for mid 1980s and mid 2000s. DSL has

scanned all approved LWI maps to make them available as pdf files on DSL’s Web site and is currently scanning the associated reports and data. The Department of Land Conservation and Development Coastal Program provided funding to digitize several coastal LWIs, and the Institute for Natural Resources (housed at Oregon State University) obtained funding to digitize additional LWIs. The digital NWI, LWI and other wetland mapping information is now available to the public through the Oregon Wetlands Explorer portal. As part of this effort, DSL initiated revisions and updates to the LWI administrative rules (OAR 141-086) that became effective January 2009.

**Wetland Land Use Notification**

The wetland land use notification process was initiated in 1989 as part of the wetlands program legislation. All counties and cities are required to notify DSL of certain development activities proposed in wetlands that are mapped on the National Wetlands Inventory (NWI) or, if completed, the Local Wetlands Inventory (LWI). DSL reviews the notice and provides a written response within 30 days to the applicant and local government as to whether or not the proposed action requires a removal-fill permit and/or a more precise wetland boundary location (delineation). DSL has been largely successful in responding within 30 days.

The objective of the notification process is to provide coordination between local (city or county) development approvals and state wetland regulations. Overall, the wetland land use notice process has proven to be an effective “early warning” mechanism for landowners and developers that a state permit may be required in addition to the local approval.

**Table 6 - DSL Response Time for Wetland Land Use Notices FY 2009 and 2010**

<b>Response Time</b>	<b>2009</b>	<b>2010</b>
30 Days or Less	328	243
31-59 Days	0	0
60+ Days	0	0
<b>Total</b>	<b>328</b>	<b>243</b>

Note: The continued depressed economy has resulted in reduction of the number of land use notices submitted.

**Wetland/Jurisdictional Determinations and Wetland Delineation Report Review and Approval**

In addition to wetlands inventory assistance and the wetland land use notice process, DSL wetlands program staff provides a one-page form to the public for requesting an agency determination of whether wetlands or other waters of the state may be present

on a particular parcel of land. DSL staff conducts “offsite” determinations using maps and other available information and follow up with a field investigation, if needed and as time allows. A wetland determination identifies whether or not wetlands or other waters of the state are present on a site that may be subject to state permit requirements. If wetlands are present, a wetland boundary delineation and report by a wetland consultant may be needed to accurately locate and map the wetlands (a wetland delineation report). Wetlands Program staff review wetland delineation reports submitted to DSL. Landowners, developers and local governments use the approved delineation report and maps to avoid or minimize wetland impacts, or to determine the impacts that will require a state permit.

Table 7 shows the number of wetland determinations and delineation report reviews conducted for FY 2009 and 2010. The continued depressed economy has resulted in reduction of the number of delineation reports submitted.

**Table 7 - Wetland Determinations & Delineation Report Reviews for FY 2009 and 2010**

<b>Determinations/ Delineations</b>	<b>2009</b>	<b>2010</b>
Delineations	351	241
Determinations	252	231
<b>Total</b>	<b>603</b>	<b>472</b>

HB 2106, which was implemented on January 1, 2008, included a timeline of up to 120 days for completing the initial review of delineation reports. The report review timeline data for FY 2009 and 2010 is provided below.

**Table 8 - Days from receipt of wetland delineation and fee to completion of initial agency review**

Days	Number of Reports Reviewed Within Timeframe		Percent of Total Reports Reviewed Within Timeframe	
	<b>2009</b>	<b>2010</b>	<b>2009</b>	<b>2010</b>
0 - 30	114	58	41%	30%
31- 60	116	47	41%	24%
61 – 90	43	44	15%	23%
91 – 120	6	43	2%	22%
> 120	2	1	1%	1%

The mean number of days for completion of initial report review was 34 days for FY 2009 and 50 days for FY 2010.

## **Wetland Delineation Manual Regional Supplement Development and Training**

DSL requires that wetland determinations and delineations be conducted using the Army Corps of Engineers' 1987 Wetlands Delineation Manual (The Manual) or subsequent federal manual and applicable guidance (ORS 196.805). During the last biennium, the Corps continued a major effort to develop regional supplements to The Manual that update the scientific basis and provide improved regional field indicators for identifying and delineating wetlands. Two regional supplements pertain to Oregon—the Arid West supplement and the Western Mountains, Valleys and Coast supplement.

Due to the importance of this effort to Oregon's Removal-Fill Law and wetlands inventory and planning efforts, two DSL wetlands specialists were fully involved in the development of these two supplements. During the current biennium, the regional supplements' trial implementation period ended and DSL staff provided comments on the interim supplements and the final version 2.0 drafts to the two interagency working groups. DSL and the Corps (Portland District) provided a training workshop for agencies and the private sector in September 2008.

## **Wetland Conservation Plans**

Wetland Conservation Plans (WCPs) are an optional wetland planning mechanism that provide an alternative means of wetland protection to the standard Goal 5 (Natural Resources) or Goal 17 (Coastal Shorelands) requirements of the statewide land use planning program. A WCP provides more certainty for developers and the city by designating certain wetlands or portions of wetlands for development and some wetlands for protection. When DSL approves the plan, which includes a compensatory mitigation plan for the plan area, state removal-fill permits are issued according to designations in the plan. One WCP has been approved by DSL – the West Eugene Wetlands Plan – which was approved in 1994 and has been amended since then. A few additional cities have expressed an interest in developing a WCP for a portion of their jurisdiction where there are significant wetland/development conflicts, but the planning effort required to meet all of the requirements and deliver both state and federal permitting certainty has proven to be daunting.

## **Wetland Scientist Certification Program Investigation**

Senate Bill 544 (2007) required DSL to investigate the feasibility of a wetland scientist certification program for Oregon, and report back to the Legislative Assembly by November 1, 2008. In its report to the Legislative Assembly, the Department recommended that a voluntary Oregon Professional Wetland Delineator Certification Program be implemented. The recommendation proposed that a meaningful certification program could be developed if a reasonable fee level was established to cover program costs and stakeholders were involved in the development of the legislative concept. Under such a voluntary program, only those persons certified under

the program would be permitted to use the title “Oregon Certified Professional Wetland Delineator” or similar titles. The certification program would set minimum standards for education, training, and experience; require a passing score on an examination; require signing a code of ethics and professional practice; and require periodic renewal that includes continuing professional experience and education.

This recommendation is based upon the finding that a voluntary wetland delineator certification program would promote consumer protection by providing standards for the profession and a means for the public to easily determine whether a private consultant is likely to provide competent professional services. Such a program would also foster the knowledgeable application of wetland science in implementing the state Removal-Fill Law and land use decisions that would better protect, manage, and conserve the waters of this state.

Senate Bill 756 was introduced in the 2009 Legislative Assembly. The bill was referred to the Environment and Natural Resource committee where it still remained upon the committee’s adjournment.

### **Oregon Rapid Wetland Assessment Protocol**

During the 2003 legislative session, DSL committed to developing a wetland assessment methodology that could be applied statewide to assess the functions, values and condition of wetlands for permitting purposes. DSL assembled a technical advisory committee (TAC) that worked to develop detailed recommendations for what became the Oregon Rapid Wetland Assessment Protocol (ORWAP). DSL subsequently obtained a federal grant to fund development of ORWAP, assembled a new TAC (including representatives from state and federal agencies and the private sector), and contracted with a wetland assessment expert to develop ORWAP with guidance from the TAC.

The assessment protocol was completed in May 2009 with the release of the Manual for the Oregon Rapid Assessment Protocol (ORWAP), ORWAP Calculator, supplemental Excel spreadsheets, and data forms. DSL, the Corps, and the EPA jointly developed the Guidance for Using the ORWAP in the State and Federal Permit Programs to provide guidance to Oregon removal-fill permit and Department of the Army permit applicants, consultants and regulatory staff. DSL sponsored three 3-day trainings on the protocol in the summer of 2009 for consultants and regulatory staff. ORWAP was required by rule for many wetland permit applications effective January 1, 2010. ORWAP version 2.0.2, which incorporated feedback received during trainings and a few corrections, was released in April 2010. DSL offered two additional trainings during the summer of 2010.

Although ORWAP was developed primarily for state and federal wetland regulatory program use, it was also designed to be suitable for wetlands planning by local governments and for wetland assessments by watershed councils and other entities. DSL is working with three cities and one county government to test the protocol during

the development of their Local Wetland Inventory (LWI) and designation of Locally Significant Wetlands (LSW). Wetland inventories, assessments, and LSW designations must be completed prior to adopting a local wetland protection program under Goal 5 or Goal 17 of the Statewide Land Use Planning Program.

### **Oregon Stream-Flow Identification Method**

Because there are many non-perennial streams in Oregon for which there are no reliable flow records, the Army Corps of Engineers Portland District, the EPA Oregon Operations Office and DSL are cooperatively developing a field assessment method that can be used to distinguish between perennial, intermittent, and ephemeral streams in Oregon. These stream-flow distinctions can be crucial to determining state and federal jurisdiction. The method uses a suite of readily observed indicators representing a stream process or feature including: geomorphic (e.g., channel structure, erosional and depositional features), hydrologic (e.g., groundwater discharge and hydric soils), and biologic (e.g., wetland plants, macro invertebrates and amphibians). Each indicator is assigned a numeric score using a weighted scale, and the flow duration is predicted based on the cumulative score for a given stream reach. An interim version of the Oregon Stream Flow Identification Method was released in March 2009. Interagency training sessions were held in the spring of 2009 in Portland, La Grande and Medford. The EPA, the Corps and DSL conducted a technical session at the 2010 Society of Wetland Scientists PNW Chapter Annual Meeting in April 2010.

To verify the method, EPA conducted a study applying an initial version of the method to 177 stream reaches in multiple hydrologic landscape regions across the state, during both wet and dry seasons, and comparing predicted and observed flow durations. The results of the study and public comments informed changes to improve accuracy and utility of the method and will be incorporated in a revised version to be released late in 2010. The EPA anticipates that further verification to facilitate the transfer of the method for use across the Pacific Northwest.

### **Wetland and Land Use Change Mapping**

Oregon has a no net loss of freshwater wetlands and net gain of tidal wetlands benchmark goal, but there is no comprehensive state program for tracking all wetland change. To help provide information on wetland trends, DSL has worked with other agencies to conduct wetland status and trend studies in two target areas – the Willamette Valley and the coast. The coastal wetland change mapping was initially scheduled for completion in 2007, but new technology that allowed for much-improved wetland mapping resulted in the need to update the baseline mapping (1982-era mapping) and has delayed project completion.

The EPA provided funding for an update for the second target area – the Willamette Valley. The initial wetland change study (*Wetland and Land Use Change in the*

*Willamette Valley, Oregon: 1982 to 1994*) was published in 1998. DSL entered into a cooperative agreement with the U.S. Fish and Wildlife Service, National Wetlands Inventory, to update the study to 2005. The wetland change mapping for the 1994 to 2005 period has been completed and the data compiled in the last biennium. The data analysis and report preparation was completed in 2009. A final draft report (Volume 1 and Volume 2) was completed in March of 2010 and sent out for peer review. The final wetland change study report is expected to be completed by the end of 2010.

### **Voluntary Wetland Restoration Program Pilot Project**

DSL's wetland restoration specialist continued work on a multi-year grant from the EPA that funded positions to assist the state in implementing strategies in the report *Recommendations for a Nonregulatory Wetland Restoration Program for Oregon* (1998) by laying the groundwork for developing and implementing a voluntary wetland restoration program. Objectives included providing assistance to landowners and other agencies, obtaining more reliable and consistent baseline information, permitting and monitoring wetland restoration and enhancement projects, and also identifying improvements necessary to accurately track the wetland gains and other environmental improvements that result from these projects. Because voluntary restoration and enhancement projects are typically very large compared to other permitted wetland changes, accurate accounting is important for evaluating how the state is doing in meeting wetland conservation goals. The wetland restoration specialist hired to work on this program is working closely with OWEB and other agencies that provide funding and technical assistance for projects. The pilot project will be completed in Fall 2010.

### **National Wetland Condition Assessment Support**

EPA is mandated to assess the condition of the nation's aquatic resources. The last aquatic resource to be assessed is wetlands (in 2011). DSL's wetlands program staff provided many hours of technical assistance to EPA through the review of draft field manuals, conference calls, and field-testing of draft wetland condition assessment protocols. DSL applied for a grant from EPA to continue to provide assistance with the field sampling and data collection in Oregon.

## **Section 4 - Public Information/Outreach**

DSL regularly provides information to the public, permit applicants, private consultants, and other groups on wetlands and regulations. Information is provided through e-mail updates, the DSL e-newsletter and Web site, meetings with consultants, the Removal-Fill TAC, and other forums as the opportunity presents itself. For example, wetlands program staff attended coastal planners network meetings (October 2009 and April 2010) to discuss wetland land use notification requirements and wetland regulations, and participated on a wetland regulations panel for the Assoc. of Oregon Counties road department meeting (June 2009). DSL wetland specialists participate in public meetings held in conjunction with LWI development. At these meetings, DSL staff discusses not only the LWI and wetland planning process, but answers questions regarding regulations and permit processes. There were numerous LWI meetings during this reporting period (see Table 5 for cities that received LWI assistance).

In March 2010, DSL hosted the first Consultant Forum meetings as a co-sponsor with the Corps of Engineers. The meetings are scheduled quarterly with consultants to discuss technical and regulatory issues, mostly related to wetland mitigation.

In November 2008, DSL hosted a mitigation retreat with experts in the field to strategize for future improvements in mitigation banking and function based accounting. The participants included other state and federal agencies and mitigation providers. DSL hosted Annual Mitigation Bankers Meetings in 2009 and 2010.

### **Wetland Delineation, Assessment and Monitoring Training**

During this reporting period, DSL wetland staff provided or collaborated with other agencies to provide the following technical training:

- Western Mountains, Valleys and Coast Regional Supplement to the Corps wetlands delineation manual workshop for 45 persons at the Wetlands 2008 national conference in Portland, September 2009.
- Oregon Rapid Wetland Assessment Protocol trainings for private consultants and agency staff (three, 3-day trainings) in July and August 2009.
- Interagency hydric soils training, July 2008.
- Wetland Mitigation Monitoring Training, November 2009

### **Removal-Fill Guidance Development**

In January 2009, the Department launched a project to create the Removal-Fill Guide. The Removal-Fill Guide is a comprehensive document that covers everything from how to plan projects for ease in permitting to what to expect during the permit application process. Two chapters, in draft form, were posted on the Web site in October 2009: Compensatory Wetland Mitigation and Wetland Mitigation Monitoring. The entire Removal-Fill Guide is scheduled for release on January 1, 2011.

## **Information for Determining Waters of the State**

In addition to assisting with development of the two Regional Supplements to the Corps of Engineers Wetlands Delineation Manual described above, DSL staff participated in the development (including field-testing) of the Oregon Streamflow Duration Assessment Method (OSDAM) that was published as an interim method pending further testing in March 2009. This method may be used to distinguish between perennial, intermittent, and ephemeral streams; the latter are not subject to regulation under the Removal-Fill Law.

DSL staff also initiated development of a guidance document: Estuarine and Freshwater Tidal Plant Associations in Oregon (Christy, John A. and Laura S. Brophy). This guide, in the final edits stage, may be used to help identify tidal habitats below highest measured tide that are subject to regulation under the Removal-Fill Law.

Other public information efforts, targeted mainly for private consultants and other agencies, included a major upgrade to wetland delineation and wetland assessment information sources on the DSL Web site, and assistance with developing and refining information available at the Oregon Wetlands Explorer portal, hosted by the Institute for Natural Resources and Oregon State University.

## **Oregon 150 Mill Creek Project**

In October 2008, DSL initiated restoration of the riparian corridor along Mill Creek adjacent to our headquarters building in Salem. The project was the state's first "Take Care of Oregon" project for Oregon's Sesquicentennial in 2009. A tremendous outreach activity, the restoration project involved more than 100 volunteers, including Gov. Ted Kulongoski, First Lady Mary Oberst, staff from state agencies, and neighborhood students. Two key groups helped with all aspects of the work: students from the field biology class at North Salem High School and participants in the OSU Extension Service's Youth Enviro Squad.

The Mill Creek cleanup is the brainchild of DSL wetlands specialist Jevra Brown, who with other DSL staff, helped coordinate the project and recruit volunteers. Over many weekends and afternoons, crews removed holly, laurel, black locust, Himalayan blackberry and English ivy, and replanted the area with native species such as sword fern, Oregon grape, Indian plum, red flowering current and wild ginger.

The project garnered substantial in-kind donations, including plants from Mahonia Vineyards and Nursery and Champoeg Nursery; a 30-yard refuse bin for plant material donated by Allied Waste; landscape assistance and hand tools from the Oregon Department of Administrative Services; and mulch from the Marion County Department of Public Works.

In May 2009, the project was one of five native plant gardens featured on the Friends of Straub Environmental Learning Center's annual Native Plant Tour.

While the project will never be “done,” a final piece will be completed in fall 2010: installing three interpretive signs to provide information on the benefits of native plants. Grants from the Marion Soil and Water Conservation District provided funds for the signs.

### **State Land Board Awards**

Another example of DSL outreach is the State Land Board Awards program with awards presented in three categories, two of which relate to the Removal-Fill and Wetland Planning Programs: 1) Stream Project Award; and 2) Wetland Project Award.

The 2008 Stream Project Award was presented to Tillamook County for the Coal Creek Dam removal. Spearheaded by the Tillamook Estuaries Partnership, this project involved removing a dam on Coal Creek that was originally built in 1949 to supply water to the Tillamook Creamery Association's cheese plant and surrounding community. When the water line failed in the 1990s, the creamery association sought to terminate its lease with Tillamook County for the forestland surrounding the dam, and the county agreed to do so if the 30-foot-high dam was removed. The Coal Creek Dam was successfully blasted away in September 2008. Coal Creek, a tributary of the Kilchis River, has been restored to its historic channel, and significant improvements to the creek have already been observed, including spawning salmon and gravel movement. The project was accomplished through a successful partnership of private and public organizations.

The 2009 Stream Project Award was presented to the Grant Soil and Water Conservation District and their many partners for their efforts over the past 16 years to replace historic gravel push-up dams that impede fish passage. The district marked their 100th irrigation diversion replacement in 2009, and plans to tackle another 60 projects over the next 10 years.

Two Wetland Project Awards were presented in 2009.

The first was for the Neitzel Farm habitat restoration project, which turned a small, family-owned farm near Seaside into active wetlands and habitat for salmon and other wildlife. Ernestine Neitzel and her son Les, owners of the last historic truck farm in the area, wanted to ensure the property would be preserved in a natural state in perpetuity. The project involved restoring and reconnecting off-channel wetlands to improve habitat for Coho salmon and other species on .61 acres of the farm.

The second award was for the Munger Farm Restoration, a project that restored approximately 40 acres of wetlands on land adjacent to the Tualatin River near Sherwood. Metro purchased the land in 1997 using money from a 1995 open-spaces bond measure. The project goals are to provide access to the river and promote development of natural habitat in the watershed. A major part of the restoration work involved disabling historic agricultural drain tiles and reseeded the area with native species and woody plants.

## **Section 5 - Industrial Site and Wetland Planning Assistance to Cities and Counties**

DSL's role in the effort to prepare industrial lands for development was strengthened under HB 2011 passed by the 2003 Legislature, which contained the following provisions:

- DSL became a member agency of the state and nine regional Economic Revitalization Teams (ERT).
- DSL received authority to create an economic revitalization liaison position. Originally created as a limited duration position; the position was subsequently made permanent in 2005.
- DSL was directed to create an expedited process for identifying and mitigating the loss of wetlands on industrial sites.

### **Accomplishments**

DSL adopted new administrative rules in 2004 for an expedited planning and authorization process for industrial sites. Since that time, expedited services delivered by the DSL-ERT Liaison to date have included:

- Rapid assessment of approximately 140 candidate sites for potential wetland issues: all wetland determinations completed in 14 days or less, and all wetland delineation reviews completed in less than 120 days with most completed in less than 90 days.
- Technical assistance provided to 34 sites for the 2009-2010 biennium ranging from new or updated wetland assessments, impact avoidance and minimization planning, wetland mitigation planning assistance and removal-fill permit application processing assistance.
- Coordination with US Army Corps of Engineers on federal wetland permit issues for various sites.
- Participation in nine regional Economic Revitalization Teams to facilitate the development of projects with significant opportunities for job creation. DSL lead staff has served as chairperson for three of the nine teams.

### **Examples of Successes**

Examples of industrial projects in the planning, permitting, development or operations phase that have benefited from DSL services provided for the certification program include:

- Lowe's warehouse/distribution facility, Lebanon: 350 new family-wage jobs.
- Google industrial park, Port of The Dalles: 75 new high-wage jobs.
- John Day Airport Industrial Park: 12 companies investing \$24 million.

- La Grande Technology Park: \$2.1 million infrastructure investment currently underway.
- Jefferson Business Park, Madras: 20 new jobs created and 40 jobs retained for this community.
- Southport Lumber Company, Coos Bay: New mill created 82 new family-wage jobs.
- Canby Industrial Park, Canby: Six projects equaling \$19 million investment and 243 jobs to be created.
- Townsend Industrial Park, Fairview: Three completed projects resulting in 582 new and retained jobs.
- Umpqua Dairy distribution facility, Central Point: 15 new jobs created.
- Avenue G, White City: 22 acres developed for manufacturing.
- South Umpqua Industrial Park, Myrtle Creek: Three projects to result in approximately 280 new jobs.
- Genentech, Hillsboro: \$400 million bioscience development.
- Reuse of former International Paper mill site in Millersburg for alternative energy project.
- Facebook datacenter development of Tom McCall Industrial Park, Prineville: \$190 million investment.
- Sanyo photovoltaic manufacturing facility at Gaffin Road Industrial Park, Salem: 200 jobs and \$80 million investment.
- Multiple industrial developments at Mill Creek Corporate Center including Home Depot Rapid Deployment Center, Salem: 500,000 square foot development and 175 new jobs.

## **Section 6 - Compensatory Wetland Mitigation**

OAR 141-085-0006(3)) defines compensatory mitigation as follows:

*“Compensatory mitigation” means replacement of water resources that are damaged or destroyed by an authorized activity.”*

Applicants have several mitigation options to choose from: they may conduct their own CWM on the impact site or elsewhere nearby by either creating or restoring wetlands, enhancing degraded wetlands, or in certain limited cases, preserving high value wetlands that are threatened. Some applicants have the option of purchasing wetland credits from a Mitigation Bank or In-Lieu-Fee project, or they may pay into the Removal-Fill Mitigation Fund. The Department promotes Mitigation Banking because we find it to be both ecologically valuable to consolidate mitigation at large sites, and because it more efficiently meets our goal of successful replacement of lost wetlands.

### **Mitigation Banking**

At the beginning of the biennium, there were 16 active mitigation banks, and 5 had completed a prospectus and were actively proceeding to establish a new bank. As of June 30, 2010, DSL had approved 20 banks, with 6 additional banks in process.

New banks approved in fiscal years 2009 and 2010:

<u>Bank</u>	<u>County</u>	<u>Prospectus date</u>	<u>Bank Approval date</u>
Garret Creek	Clackamas	August 2007	July 2008
Long Tom	Lane	October 2006	July 2008
ODOT Vernal Pool	Jackson	August 2007	July 2008
Wilbur Estuary	Lane	March 2005	January 2009
Mud Slough Phase 3	Polk	September 2007	July 2008

One hundred percent of mitigation banks received an on-site compliance inspection annually. Two banks are in remediation due to weed invasion and/or insufficient hydrology. Two of the older banks have sold out and are continuing their monitoring programs.

Total bank credit sales have increased from the previous biennia as follows:

<u>Biennium</u>	<u>Credits Sold</u>
2005-06 Biennium	63.60
2007-08 Biennium	80.90
2009-10 Biennium	101.27

Fiscal year 2010 includes two large sales totaling 35 credits for the Junction City Prison in September 2009. Fifty-three separate projects bought bank credits in FY 2009; 45 projects bought credits in FY 2010.

**Table 9 – List of Mitigation Banks**

<b>Mitigation Bank</b>	<b>Credits Withdrawn FY 2009</b>	<b>Credits Withdrawn FY 2010</b>
Amazon Creek	3.62	0.71
Cow Hollow	2.92	0.83
Evergreen	1.90	20.22
Fernhill	0.00	0.00
Foster Creek	3.04	0.00
Frazier Creek	0.00	0.00
Garret Creek	0.00	0.00
Long Tom	1.92	2.87
Marion	1.84	3.83
Mid-Valley	0.00	0.24
Muddy Creek	5.53	15.33
Mud Slough phases 1-3	9.22	9.27
Oak Creek	0.25	0.59
One Horse	3.70	1.22
ODOT Crooked River	0.28	0.00
ODOT Lost River	1.38	0.15
ODOT Vernal Pool	1.29	1.54
Weathers	0.00	2.27
West Eugene	2.54	2.44
Wilbur Estuary	0.00	0.33
** Butler Tualatin	0.00	0.00
** Coyote Prairie North	0.00	0.00
** Heikes Tualatin	0.00	0.00
** Mud Slough-Phase 4	0.00	0.00
**Oregon Trail Heritage	0.00	0.00
**Rogue Valley Vernal Pool	0.00	0.00
<b>Totals</b>	<b>39.43</b>	<b>61.84</b>
**Banks under development as of 6-30-10		

**Compensatory Wetland Mitigation – In-Lieu Programs**

In-lieu fees are accepted into the Oregon Removal-Fill Mitigation Fund as a form of compensatory wetland mitigation for unavoidable adverse effects on waters of this state. The funds are used by the agency to construct mitigation sites and compensate

for the lost functions and values. There are two in-lieu fee programs available. The Payment In-Lieu (PIL) program allows payment for compensatory mitigation for small impacts (generally <0.2 acres) to waters of this state when other methods of providing compensatory wetland mitigation are not available or will not produce adequate wetland mitigation. The In-Lieu Fee (FIL) program was approved by the US Army Corps of Engineers in 2009 and provides compensatory mitigation for both waters of this state **and** waters of the United States. The FIL program seeks to better serve our customers and water resources by establishing ecologically significant restoration projects in advance of mitigation needs in areas of the state that are not served by private mitigation banks.

During the 2009-2010 biennium, a total of \$565,791 in fees was collected under the PIL program (Table 10).

**Table 10 - Compensatory Mitigation Payment In-Lieu (PIL) Deposits**

	FY 2009	FY 2010
Number of Permittees	34	41
PIL Totals	\$250,328	\$315,463
Mitigation obligation (acres)	3.18 acres	5.40 acres

DSL uses deposits from the Oregon Removal-Fill Mitigation Fund to grant wetland restoration, creation, enhancement, and preservation projects, and may purchase credits from appropriate wetland mitigation banks if they become established. During the biennium, a total of \$1,016,151 was granted to projects (Table 11).

**Table 11 - PIL Funds Awarded to Recipients in FYs 2009 & 2010**

Recipient	Key Facts	Project Description
Deschutes National Forest (USFS)	\$62,035 Ryan Ranch Project Deschutes River Basin Deschutes County	Restores and enhances a 55-acre meadow adjacent to the Deschutes River through dike removal and lowering, and restoration of historic inlet/outlet channels. The project will provide water storage and delay, habitat for resident and migrant waterfowl and small mammals, and provide benefits to Oregon spotted frog. There will be enhanced recreational and educational opportunities for the public through the Deschutes River Trail and Kids in the Woods education program.

<p>Clean Water Services</p>	<p>\$797,523</p> <p>Half Mile Lane</p> <p>Lower Willamette</p> <p>Washington County</p> <p>Generates a potential of 12.15 wetland credits under the FIL program.</p> <p>A pilot project under the Counting on the Environment program with optional ecosystem credit types available</p>	<p>A farmed 28-acre field located in the midst of a Salmon-Safe certified nursery included a ditched salmon-bearing stream (essential salmonid habitat, and critical habitat for steelhead, <i>Oncorhynchus mykiss</i>) with a partial fish barrier, drained hydric soils, and degraded wetlands. The project included disabling drain tiles and filling the current ditched location of Roderick Creek. A new stream channel was constructed to mimic historic conditions, and surrounding floodplain elevations graded to restore connection to floodplain wetlands. The partial fish barrier was replaced with a bridge. Functions will improve for nitrate removal and retention, and habitat for anadromous fish, amphibians, reptiles, and pollinators.</p>
<p>Salmon-Drift Creek Watershed Council</p>	<p>\$156,593</p> <p>Tamara Quays</p> <p>Mid Coast</p> <p>Lincoln County</p> <p>Generates a potential of 4.33 wetland credits under the FIL program</p>	<p>Restores high marsh habitat and tidal influence to 17-acres of estuary in the Salmon River, within the Cascade Head Scenic Research Area. Dikes, ditches, tidegates, and fill converted this site to a mobile home park and freshwater wetland in the early 1970's. Restoration activities re-established historic grades and will provide improved functionality for songbirds, mammals, fish, carbon sequestration, and organic matter export.</p>

**No Net Loss of Wetlands – Compensatory Wetlands Mitigation**

Figure 3 accounts for DSL’s performance in meeting the state’s goal of no net loss of wetlands due to permit actions. During the period shown on the graph, DSL has met and exceeded this goal showing a net gain of non-tidal and estuarine wetlands every year. Net gain means that permitted losses are more than offset by wetland creation or restoration required as compensatory mitigation. Requiring appropriate compensatory mitigation ensures that lost wetland functions and services are replaced, which is critical

to the integrity of the permitting program. The agency also has a limited duration, full-time staff position, funded by a grant from the U.S. Environmental Protection Agency, dedicated to encouraging voluntary wetland restoration projects.

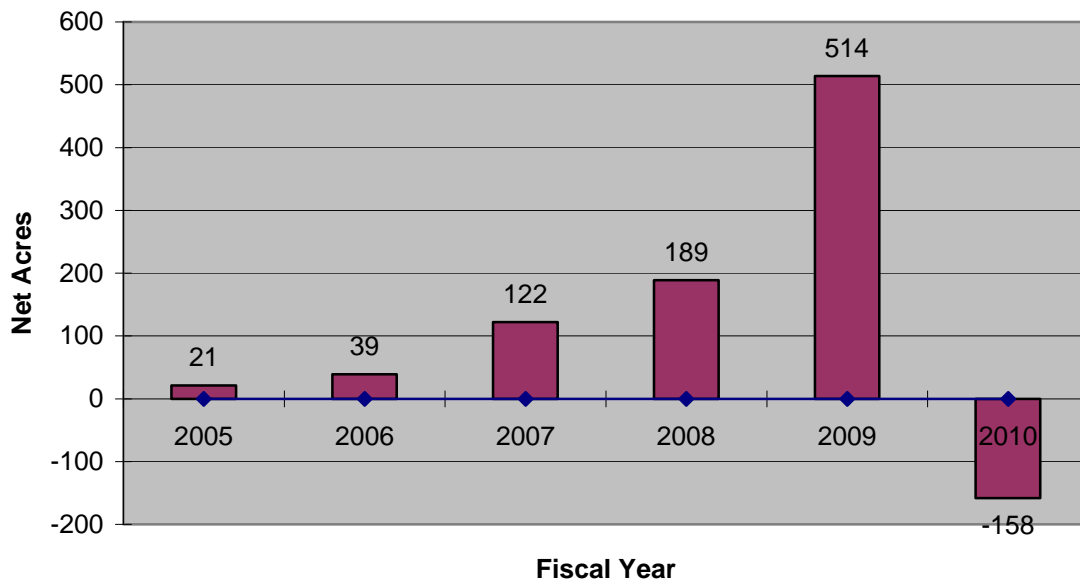
For FY 2010, DSL's calculations show a net loss of 157.94 acres of wetlands. There were 236.11 acres of permanent impact including 235.72 acres of non-tidal wetlands and 0.40 acres of estuarine wetlands. There were 78.12 acres of wetland creation and restoration including 72.78 acres of non-tidal wetlands and 5.34 acres of estuarine wetlands.

The net loss calculation for FY 2010 is somewhat misleading due to the way gains and losses associated with wetland mitigation banks are calculated. When mitigation bank credits are used for mitigation, the wetland losses are debited during the year of the impact. The gains for mitigation banks are calculated during the year the mitigation bank is constructed. Mitigation bank credit withdrawals in FY 2010 totaled 61.84. Permitted activities and associated compensatory mitigation have resulted in an average net gain in wetlands since 2005. Note: this data reflects only wetland impacts that were permitted; many wetland impacts fall below the 50 cubic yard permit threshold or were otherwise not captured by the permit process.

Net gains of wetland acreage only include creation and restoration of wetlands. Because wetland enhancement is conducted on existing wetlands, the use of enhancement for compensatory mitigation results in a net loss in acreage. Compensatory wetland mitigation projects and habitat improvement projects frequently include significant acreages of wetland enhancement. Wetland enhancement is the improvement of the condition and the increase of the functions and values of existing degraded wetlands. There were 3,603.44 acres of wetlands enhanced in FY 2010 including 3,145.62 acres of non-tidal and 457.82 acres of estuarine wetlands.

The Department continues to improve its compliance monitoring program to systematically and scientifically sample compliance of all types of projects, including compensatory wetland mitigation. The purpose of the improved monitoring program as it applies to the no net loss goal is to identify the most common causes of mitigation project failure and rectify those causes. The Department will also continue to promote restoration and creation of wetlands over wetland enhancement in order to continue to maintain or increase the wetland resource base.

**Figure 3 - Net Gain or Loss of Wetlands (in acres)**



*\*DSL does not include compensatory wetland enhancement in no-net-loss calculations. See text for explanation.*