



COWLITZ WILDLIFE AREA 2017 MANAGEMENT PLAN UPDATE

Washington Department of Fish and Wildlife

Land Management Summary



Gibbs Lake (background) purchased in 2011

This is an update to the 2006 Cowlitz Wildlife Area Management Plan that provides management direction for the 14,217 acres of wildlife area lands and the additional 1,859 acres of wildlife habitat that is protected from development through a conservation easement. All lands are located within Lewis County. The plan identifies management objectives and guides the implementation of strategies based on the Washington Department of Fish and Wildlife (WDFW) Mission to “*preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities*” and

its underlying statewide goals and objectives as they apply to local conditions. Additionally, the plan guides activities that fulfill Tacoma Power’s Federal Energy Regulatory Commission (FERC) requirements to mitigate for the habitat loss due to inundation by Riffe and Mayfield Lakes.

The Management Plan is updated as habitat conditions and species needs change, as new regulations and scientific knowledge are developed, as public issues and concerns evolve, and as administrative policy regarding Wildlife Areas change. This update includes activities from 2014 – 2016.

UPDATES / CHANGES

In 2015 the Cowlitz Wildlife Area (CWLA) office moved from its location a mile outside of town into the old PUD building on Main Street in Morton. The new office has better environmental conditions. The new building has a heat pump and central air. A larger shop, more office space, and a large meeting area makes the move a much needed change. Additionally, with a presence on the main street of town we have better public accessibility

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as people can easily find us and visit the office for information or just to see the displays on the wall.

Vegetation management activities continued under the CWLA Timber Management Plan (CTMP) on the Peterman Unit. In 2015, wildlife area staff worked closely with Tacoma Power to co-managed the commercial thinning of a 20-acre parcel. Tacoma Power is responsible for funding the projects that occur under the CTMP, staff prepared a thinning plan identifying units and the recommended prescriptions to better facilitate Tacoma's funding requests. In 2016, the wildlife area in cooperation with Tacoma Power co-managed the thinning of 11 management units (Figure 1) totaling 362 acres that were identified in the CTMP for pre-commercial thinning. Photo plots were established within some of these units to track the vegetation and habitat changes over time.



Figure 1 View of pre-commercial thin

NEW ISSUES

Tacoma Power concluded that a large seismic event, though the probability is very low, could cause the spillway piers to fail; which in turn would cause the spillway gates to fail resulting in an uncontrolled release of water. To mitigate, they are lowering the water levels on the lake by 30 ft. There is no current plan to make repairs to the dam, so for management purposes on the CWLA, this is being considered a permanent draw down. This draw down poses some issues that will need to be monitored and addressed as they become more evident. The first issues are the exposure and increased accessibility of both known and unknown cultural resource sites. Another issue is that vegetation will quickly colonize the new upland areas since inundation will no longer suppress their growth. Reed canarygrass is expected to be the dominant plant with alder and cottonwood establishing footholds as well. Wildlife area staff will need to monitor the area for noxious weeds



Figure 2 View of the Kosmos Access Barrier

as well and fire risk in the grass will become more likely as it dries out during the summer months. The CWLA staff installed a permanent barrier on the Kosmos Unit isolating vehicular traffic to the established dispersed camping site near the foot of Dog Mountain. This will mitigate some of the issues identified above. Due to the possibility of the exposure of previously unknown cultural resource sites and the need to protect these resources under State and Federal law, staff has taken training to better facilitate those responsibilities and help Tacoma Power meet their FERC requirements.

MAJOR STEWARDSHIP ACCOMPLISHMENTS

Peterman Mainline (1000 RD) Repair and Upgrade

The project to repair and upgrade the 1000 line (6.5 miles) on Peterman Unit began in 2015 with the daylighting or removal of trees from the edges of the road. In addition, two new road alignments were cleared of trees and the roads roughed-in. The new alignments will facilitate the abandonment of about one mile of stream-adjacent road to improve stream integrity by eliminating sediment delivery, and improving fish habitat.

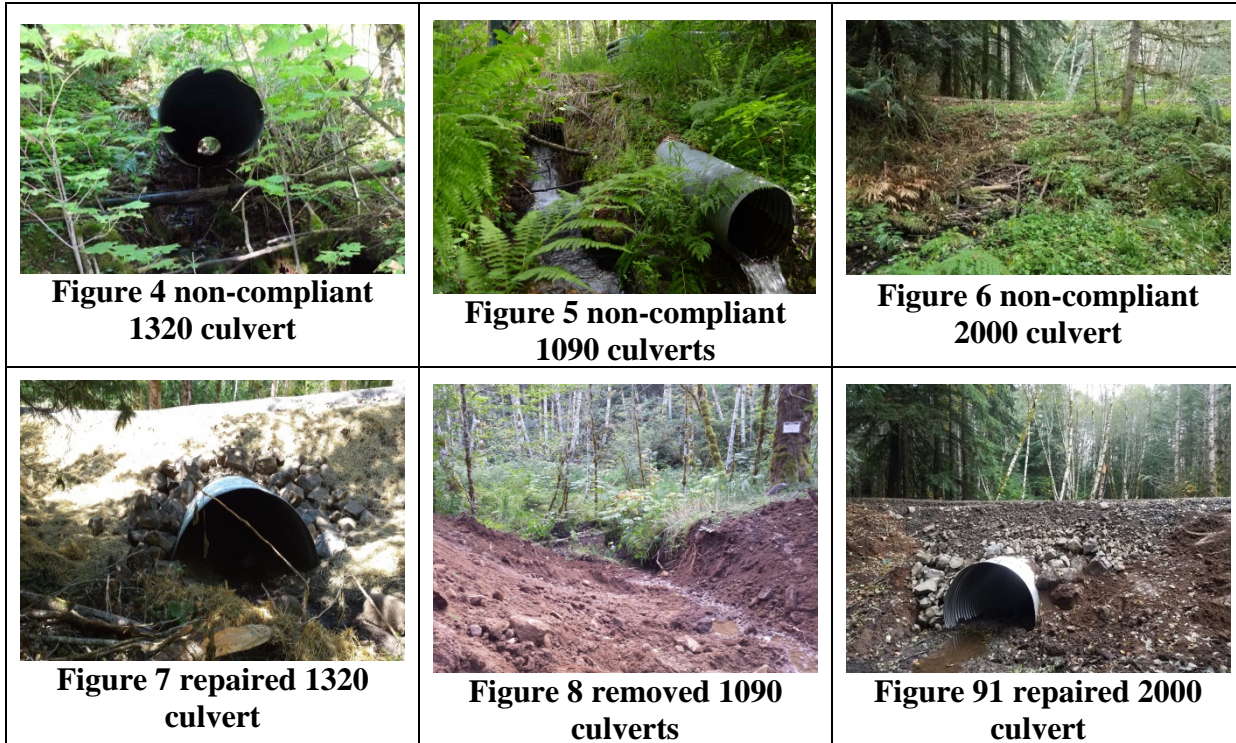
The 1000 Mainline project was completed in 2016 with upgrades and reconstruction efforts focusing on restoring ditches, upgrading and installing additional cross drains, and grading the roadway. The road was resurfaced (graded and compacted) with ~12,000 cubic yards of crushed rock. Management costs in the future will be reduced as a result of the improved roadway. The abandonment of approximately one mile of stream-adjacent road was completed and approximately 10 acres of timber was removed.



Figure 3 Peterman Mainline after reconstruction

Road Maintenance and Abandonment Plan (RMAP) Projects

Three major RMAP projects were completed during 2015/2016. In 2015, through a collaborative effort between WDFW and Olympic Resources Management (ORM), the 1320 Road culvert was engineered and repaired to be compliant as a fish passage crossing. ORM engineers designed the project and WDFW engineers purchased the pipe and completed the installation (Figures 4 & 7). Also, the fish-blocking culvert on the 1090 Road was removed and the road abandoned (Figures 5 & 8). The historically-used, but unpermitted access to the small private inholding property, is being preserved with the construction of an alternative route that is free of hydraulic issues. In 2016 wildlife area staff, in cooperation with Green Diamond Resource Company, replaced an existing RMAP culvert on the 2000 Road. Wildlife area staff profiled the stream and determined that the existing 24-inch culvert would need to be replaced with an 84-inch culvert and countersunk 30% to meet fish passage specifications (Figures 6 & 9).



Davis Lake Forage Field Culvert Installation

Two culverts were installed to facilitate access for summer hay cutting on an additional 20 acres (Figure 10). The grass was cut and removed by a landowner as compensation for losses due to elk foraging. This benefits the wildlife area by providing nutritious forage for wildlife and wintering waterfowl. It also provides the added benefit of reducing the chance of wildfires (these fields are near private residences).



Figure 20 Davis Lake Unit culvert

Mossyrock Pond and Ditch Maintenance

The ditches were cleaned throughout this unit using a mini-excavator to remove channel blocking vegetation and debris (Figure 11). Additionally, the banks and pond bottoms were mowed. All activity was done while the ponds and ditches were dry. An animal had excavated a sizeable burrow in the berm separating pond #2 from the ditch that flows into pond #3. The burrow was excavated using the mini-excavator, collapsed, and then the material was reincorporated back into the bank. The reincorporated material was compacted using the bucket on the excavator.



Figure 3 Mossyrock ditch cleaning

Peterman 1300 RD Maintenance

Cowlitz Wildlife Area staff hired a local contractor to maintain the 3.5 mile 1300 Road. The ditches were cleaned out, catch basins were restored, and the road was resurfaced with crushed rock. In addition, a crossdrain culvert was installed at the junction of the 1350 road to drain the inside ditch onto the forest floor on the outside of the road. Previously the ditch had no outlet and was braiding across the road causing erosion.

Spears Unit Old Mill Foundation Project

This project’s main purpose was to correct the safety issue that the old exposed foundations and footings, left over from when the area was an operating plywood mill. An additional objective of this project was to provide plantable soils in areas where soil compaction is high and limiting diversity in the vegetation community. Wildlife area staff worked with local agencies (City of Morton, Washington State Department of Transportatin, and Lewis County) to acquire the necessary fill materials. Approximately 8,000 yards of fill material has been deposited to date (Figure 12). The partners have done a great job of keeping the dirt graded out and aesthetically appealing. Wildlife area staff have seeded the fill dirt to prevent erosion and cottonwoods will colonize the new soils.



Figure 42 Old foundations now under fill

STATUS REPORT OF 2014-15 PERFORMANCE MEASURES

Key performance measures are identified each year to monitor progress and identify any issues that might interfere with planned priority activities. This information will be used to delete, add, or alter priority strategies. The following are the key performance measures identified in 2015 and their status at the end of the year.

| 2014-15 Performance Measure | Status of Performance Measure |
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| Cowlitz Trout Hatchery | |
| Decrease the density and extent of the persistent populations of scotch broom and perennial pea. | Control measures have been successful though the site is still reproducing new plants from the existing seed bank. Some incidental hand pulling was conducted by staff during monitoring visits. |
| Monitor Brim Bar Access Site for unlawful vehicular access to the river bed | The gate and associated large rip rap has been successful in keeping vehicles to the parking area |
| Monitor Brim Bar Access Site for unlawful dumping | Unlawful dumping continues to be a nuisance but, when compared to other access sites owned or managed by WDFW, the activity is relatively mild. Two appliances and |

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| | approximately 500 pounds of garbage were removed in 2015. |
| Swofford Pond Unit | |
| Conduct maintenance activities on the Swofford Pond Trail and boardwalks. | Wildlife area staff cut out trees and mowed back vegetation along the trail. |
| Conduct weed management activities. | Wildlife area staff checked for Scotch broom plants in the usual places and found only three plants that were hand pulled before they could set seed. No purple loosestrife plants were observed and staff met with Tacoma Power to discuss the yellow flag iris population. |
| Hazard tree assessment | Two trees determined to be a hazard to adjacent property and were felled. Firewood permits were issued to remove the wood as there was no commercial value to the trees. |
| Mossyrock Unit | |
| Conduct maintenance on ditches, banks and water control structures supplying and draining the unit's ponds. | Wildlife area staff mowed the vegetation from within the slab road ditch to ensure that water flowed unobstructed from the upper fields into pond number one. Staff also mowed the banks and the area surrounding pond number one. |
| Conduct weed management activities as necessary. | Wildlife area staff and the Lewis County Noxious Weed Board monitored the Japanese knotweed site regularly and no new plants were observed. |
| Address safety concerns regarding hunting in proximity to Mossyrock Park boundaries. | Wildlife area staff met with the park manager to determine the extent of the problem and "Safety Zone" signs were provided to Mossyrock Park. |
| Kosmos Unit | |
| Cowlitz Wildlife Area staff will improve recreational non-motorized access. | Approximately 1 mile of trail was constructed on the south side of the Rainey Creek footbridge. |
| Continue forage field management activities. | The forage fields on this unit were mowed and the grass removed. Also, the access road south of Rainey Creek was maintained in cooperation with Olympic Resources Management. |
| Parking, roadsides, and access area management. | All kiosk signage and the area's regulatory signs were checked and replaced as needed. The parking lot was dragged to remove holes and to redistribute the existing rock. The vegetation around the gates was spot sprayed with herbicide and the gates were painted as needed. |
| Davis Lake Unit | |
| Make improvements to the barn and grounds to facilitate the utilization of the structure for storage and shop activities. | The gutters and drain spouts have been installed and connected to the French drain. |

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| Continue forage field management activities. | The forage fields on this unit were mowed and the grass removed. |
| Peterman Ridge Unit | |
| Using chemical and mechanical methods to control vegetation along approximately 5 miles of road. | Approximately 24 miles of road was chemically treated to encourage bare ground while approximately 26 miles of road was treated mechanically. |
| Complete the 1000 Road Mainline daylighting and road maintenance upgrades project. | The daylighting portion of the project was completed. In addition to the daylighting, two new road alignments were cleared of trees and the roads roughed-in. Approximately 10 acres of timber was removed. |
| Acquire permits for the remaining RMAP culverts. | In a collaborative effort between WDFW and Olympic Resources Management, the 1320 Road culvert was engineered and repaired to be compliant as a fish passage crossing. Tacoma Power and staff met with the local DNR forester and the WDFW area habitat biologist to address two additional culverts on the 1300 Road that need repairs. It was determined that neither stream is fish bearing. |
| Continue to work abandoning the small spurs and landings identified in the SEPA checklist. | The fish-blocking culvert on the 1094 Road was removed and the road abandoned. |
| Assist Tacoma Power in managing the commercial thinning of approximately 20 acres. | Wildlife area staff assisted in the management of the contract commercial thinning of 23 acres. |
| Assist Tacoma Power in managing the pre-commercial thinning of selected units. | Tacoma Power requested that the Cowlitz Wildlife Area provide a thinning plan identifying stand recommendations with justifications to facilitate funding requests. The Cowlitz Wildlife Area Timber Management Plan was delivered to Tacoma Power in July, 2015. |
| Kiona Unit | |
| Continue forage field management activities. | The forage fields on this unit were mowed and the grass removed. Additionally, two chemical applications were conducted in 2015 and the fields were also “scraped” with a dozer to remove the “matted” debris. |
| Spears Unit | |
| Continue to work with the adjacent landowner to determine if the pond levels affect groundwater levels on their lands. | 2015 was a very dry year and the pond levels decreased due to evapotranspiration therefore no discussions were had with the landowner on this topic. However, flooding in late 2015 raised the pond levels to a maximum and wildlife area staff took photos to create a record for discussions in 2016. |
| Maintain pond levels using water right to pump water from adjacent Siler Creek. | The decision to pump into the pond from Siler Creek was postponed until winter months due |

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| | to low water levels in Siler Creek. Large scale flooding throughout the Randle lowlands made pumping not necessary in 2015. |
| Produce SEPA checklist and apply for a fill permit with Lewis County to fill the old foundations with clean material. | A SEPA checklist was prepared, an archaeological review and consultation with The Department of Archaeology and Historic Preservation and the Tribes was conducted. A fill and grade permit for 15,000 cubic yards was acquired. Approximately 2,500 cubic yards of soils was placed in the remnants of the old mill foundations. |

STATUS REPORT OF 2016 PERFORMANCE MEASURES

The following are the key performance measures identified in 2016 and their status at the end of the year.

| 2016 Performance Measure | Status of Performance Measure | Explanation of Progress 2015 Related Activity Comments |
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| Cowlitz Trout Hatchery Unit | | |
| Decrease the density and extent of the persistent populations of scotch broom and perennial pea. | A chemical spot application was conducted in June 2016 and hand pulling was employed in places where it was desirable to minimize damage to adjacent vegetation. | This site has a prolific seed bank. Monitoring occurs annually and control occurs as needed. |
| Monitor Brim Bar Access Site for unsanitary issues, unlawful dumping and unlawful vehicular access to the river bed. | The wildlife area provides a portable toilet at this location and the site is monitored for other unlawful activities. The gate and associated large rip rap has been successful in keeping vehicles to the parking area. | This is an ongoing activity and the site is monitored on a regular basis. |
| Swofford Unit | | |
| Swofford Pond South Shore Trail annual maintenance. | Cowlitz Wildlife Area staff conducted trail maintenance activities removing trees that had fallen over the trail and ensuring the trail was free of vegetation from the trailhead to the first foot bridge located approximately one mile in on the trail. | Annual activity |
| Invasive vegetation management | Wildlife area staff checked this unit for the presence / reoccurrence of Scotch broom, finding three plants that were hand pulled before they could produce seed. | Monitoring occurs annually and control occurs as needed. |
| Mossyrock Unit | | |

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| Mossyrock dike and water control structure maintenance and repair. | No construction took place in 2016. | No clear course of action has yet been identified to date. |
| Mossyrock ditch and pond maintenance. | A mini-excavator was used to remove channel blocking vegetation and debris. The banks and pond bottoms were mowed. An animal had excavated a sizeable burrow in the berm separating pond #2 from the ditch that flows into pond #3. The burrow was excavated, collapsed, and the material reincorporated back into the bank. | Maintaining the infrastructure that captures and directs spring water into the ponds is an ongoing project and the needs are variable and determined annually. |
| Invasive vegetation management | The sites appear to be 100% controlled at this time | Ongoing Activity. |
| Kosmos Unit | | |
| Improve the Clevenger Road to provide parking and facilitate access to Rainey Creek. | Work was accomplished as planned. | Wildlife area staff continues to maintain the road's status quo as a walk-in road while searching for alternative funding sources to upgrade the infrastructure. |
| Spray and maintain the Rainey Creek Trail. | Cowlitz WLA staff conducted trail maintenance activities removing trees that had fallen over the trail and ensuring the trail was free of vegetation. The trail was chemically scalped to control reed canarygrass. | This is an ongoing activity and the site is monitored on a regular basis. |
| Forage field management. | The CWLA partnered with area landowners to remove hay from approximately 75 acres of forage fields on this unit. | The haying is an ongoing activity but there was some limited work done to the ford that provides access to the field north of Steffens Creek. The slope needed to be lessened to facilitate access. |
| Parking, roadsides and access area management. | All kiosk signage and the area's regulatory signs were checked and replaced as needed. The parking lot was dragged to remove holes and to redistribute the existing rock. The vegetation around the gates was spot sprayed with herbicide and the gates were painted as needed. | This is an ongoing activity and the site is monitored on a regular basis. Due to excessive illegal dumping (200 lbs) inside the vault toilet, the door was welded shut and a portable toilet with weekly service provided as an alternative. |
| Pond enhancement | Vegetation removal continued with the removal of trees and brush that has closed off access to the ponds by waterfowl and in some cases completely obscured the presence of a pond. | This was an unplanned activity in 2015. Planning to expand the depth and breadth of the ponds is under consideration. |

| Davis Lake Unit | | |
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| Infrastructure Improvements and Maintenance. | The new motion detection and photo cell exterior lighting was installed and is functioning well. | The project to finish rocking the floor inside the barn was not finished due to low priority but will continue to be on the project list. |
| Invasive vegetation management. | The fields look good with no encroaching vegetation. CWLA staff checked hand pulled some scotch broom from the area near the old railroad rights of way. | This is an ongoing activity and the site is monitored on a regular basis. |
| Migratory winter waterfowl habitat enhancement | Two culverts were installed to facilitate access for summer hay cutting on an additional 20 acres. The fallow field off Temple Road was mowed and the grasses removed. | The culverts were an unplanned activity for 2016. |
| Peterman Ridge Unit | | |
| Peterman vegetation control on roads to maintain passage and Forest Practices compliance. | Approximately 43 miles of road was chemically treated in 2016. | There are two licensed applicators on the wildlife area, as of 2016, this has increased the treating capacity. |
| Peterman Road Abandonment and Maintenance Projects (RMAP). | Three roads were abandoned by the wildlife area in 2016 totaling approximately 1.5 miles. The 1000 Mainline project was completed. Staff met with the DNR forester and the WDFW habitat biologist and determined the two RMAP culverts on the 1300 Road were non-fish bearing and could therefore continue for life of pipe while being placed into the Family Forest Fish Passage Program (FFFPP) for funding and eventual replacement. An alternative route to Tacoma Power radio tower infrastructure if the 1300 road was to be abandoned in that location was also identified. An unplanned activity to replace an additional RMAP culvert on the 2000 road was conducted in 2016 in cooperation with Green Diamond Resource Company. | The 1000 mainline project began in 2015 with the daylighting of the road. Two of the three road abandonments occurred as upgrades to the 1000 road through new alignments were constructed. The priority of the unplanned culvert was elevated due to the abandonment of a portion of the 1000 and the subsequent construction of the new alignment along the 2000 road. |
| Property access to private inholding (West Property). | The alternative access has been constructed and a gate installed. | The original access road was abandoned in 2015. |
| Silvicultural practices – thinning. | 11 units totaling 362 acres were thinned. Photo plots within the | This activity will be ongoing and is connected to the vegetation management plan. |

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| | units were established to monitor changing habitat conditions. | |
| Kiona Unit | | |
| Forage field management. | Chemically treated approximately 20 acres of field. | This project continues from 2015 and the objective of this project is to remove the existing reed canarygrass through chemical scalping and competition. Seeding was postponed due to the reed canarygrass continuing to be persistent. |
| Repair breach risk on agricultural ditch. | CWLA staff checked the site and determined that the priority was low enough to postpone until 2017 to prevent fiscal resources needed for the Peterman Mainline project from being exhausted prematurely. | The issue was identified in 2015 and is being monitored on a regular basis. |
| Spears Unit | | |
| The Spears Mill Pond Project. | High water and flooding in late 2015 helped keep pond levels high. Observations have indicated that there is no hydrologic connection between the pond, the water table, and the surrounding properties beyond the inability of land to drain when ditches are full. Modifications were made to the standpipe (regulates maximum pond levels) to maintain the ability of ditches to drain to the pond. | CWLA staff has been looking for the most affective pumping system from a feasibility, portability, and security standpoint and no decision about a permanent solution has yet been made. |
| Old Mill Foundation Project | Approximately 8,000 yards of fill material has been deposited to date. The partners have done a great job of keeping the dirt graded and aesthetically appealing. CWLA staff have have seeded the fill dirt. | This project was permitted and implemented in 2015. This is the first full year after implementation. |
| Road vegetation management | The road around the mill pond was sprayed to control encroaching blackberries as well as suppress grasses for fire safety purposes. Also, staff spot sprayed Scotch broom as necessary. | This is an ongoing activity but was not listed in the performance measures for 2016. |

NEW STRATEGIES

The wildlife area plan identifies many strategies or activities to address the agencies strategic plan goals and objectives, why the area was purchased, habitat conditions, species present, and public issues and concerns. The following updated strategies have been added to respond to previously

unaddressed or new issues or changes on the wildlife area. New strategies may also be in response to adaptive management as staff evaluate the impacts of past management activities. Strategies identified in italics are responses to issues provided through the Wildlife Area Advisory Committee (WAAC) meetings.

Note to the reader/reviewer: No new or updated strategies are being proposed at this time.

2017-18 PERFORMANCE MEASURES

Performance measures for the Cowlitz Wildlife Area are listed below. Accomplishments and progress toward desired outcomes will be monitored and evaluated annually.

Cowlitz Trout Hatchery Unit:

1. **Invasive vegetation management** - The populations of Scotch broom (*Cytisus scoparius*) and perennial pea (*Lathyrus latifolius*) just off Spencer Road continue to be persistent and, as expected, the seed bank continues to produce a flush of juvenile plants each spring. Control of these species in this location will continue to be a priority with eradication as a goal.
 - a. A chemical application is planned for early 2017 and CWLA staff will continue to monitor the site for new plants and treat as deemed appropriate.
2. **Maintain Brim Bar Access Site**
 - a. Monitor site for unlawful vehicular access to the river bed.
 - b. Monitor the site for unlawful dumping and clean as needed.
 - c. Continue to provide a portable restroom facility.
3. **Oxbow Lake** – Oxbow lake is a popular waterfowl hunting location and a historic heron rookery. The area is gated, providing walk-in access. The road into Oxbow is a seasonally accessible road used for management purposes. Disabled hunters, through the WDFW Road Access Entry Program are offered vehicular access permits for winter waterfowl hunting. The road is showing some rutting and is not currently suitable for access under this program.
 - a. Meet with the WDFW ADA Access Program coordinator and discuss future access at this location, how to best provide necessary upgrades if program is to continue, and funding options.

Swofford Unit:

1. **Trail maintenance** - Annual maintenance to remove trees that fall during winter months and cutting back encroaching vegetation is ongoing on the Swofford Pond Trail. The boardwalks over wet areas of the trail need periodic maintenance and occasionally new boardwalks may be needed or old ones replaced.
 - a. Perform the necessary maintenance on the trail. If needed, boardwalks will be maintained, replaced, and additional ones built as necessary. Utilize a DNR Inmate Crew if available.
2. **Invasive vegetation management** - CWLA staff will conduct weed management activities.

- a. Monitor the known areas for Scotch broom reoccurrence. Watch for new locations.
- b. In July, when purple loosestrife plants should be in bloom, CWLA staff will conduct a survey of the shoreline and look for any reoccurrences. Observed plants will be hand pulled at that time if possible.
- c. Check the trailhead location for the continuing prevalence of yellow archangel. The reed canarygrass in this location makes observation and control challenging. Treat plants as observed.
- d. Assist Tacoma Power with control efforts on the populations of yellow flag iris because the plant straddles both aquatic and shoreline habitats. A control plan will be designed by Tacoma Power.
- e. Tacoma Power will continue other aquatic weed control efforts as necessary.

3. Hazard tree assessment

- a. Continue to address “hazard” trees along property boundaries as needed.

4. Road and Access Maintenance

- a. Maintain the access road to the fields on the south side of the pond and the various pullouts along the lake shore. Spray encroaching vegetation and fix / fill any potholes.

Mossyrock Unit:

- 1. Maintain water control structures** - Conduct maintenance on ditches, banks, and water control structures supplying and draining the unit’s ponds.
 - a. Maintain vegetation along ditches, dikes, and pond edges to discourage burrowing mammal activity. Clean vegetation from within the ditches to improve flow between ponds.
 - b. Check for and repair breaches in the berms between the ponds and ditches as necessary to maintain the ability to fill the ponds.
 - c. Water control structures are aging and need to be fixed or replaced. CWLA management will develop options for repairing / replacing water control structures that maintain pond levels. Partnering with Ducks Unlimited could provide a possible funding and design solution.
- 2. Invasive vegetation management** - CWLA staff will conduct weed management activities as necessary.
 - a. Check the known Japanese knotweed sites for reoccurrences and look for additional populations. If needed, the sites will be treated with an emphasis on eradication.
- 3. Hazard tree and encroachment assessment**
 - a. Assess encroachment issues by neighboring property owners and address “hazard” trees along property boundaries as needed.

Kosmos Unit:

1. Recreational access enhancement activities

- a. Spray and maintain the Rainey Creek Trail.

2. Forage field management

- a. Continue forage field management activities. Check the fields and determine if chemical treatments are necessary. Implement other agricultural activities such as disking, harrowing, and seeding as needed.

3. Beaver Dam Removal Frost Creek

- a. Several beaver dams were observed on Frost Creek. These dams cause local flooding filling the ditches along the Glenoma Road. The dams will be located and if removal with hand tools is feasible, the dams will be removed utilizing the agency's HPA for Beaver Related Maintenance. This will be coordinated with Tacoma Power which manages Glenoma Community Park.

4. Parking, roadsides and Access Area management

- a. Maintain the informational kiosk and replace signage as needed.
- b. Repair / maintain the Kosmos Access Area parking area (i.e. drag and rock the parking area and spray encroaching vegetation). The rock on the access road on the south end of the parking area needs to be repaired and maintained.
- c. Work with Tacoma Power if vehicle access restrictions to the lakebed are needed in response to lower water levels in Riffe Lake expected in 2017.
- d. Replace and maintain boundary signage.
- e. Remove garbage left by informal campers particularly during high use weekends.
- f. Spray roadsides and around gates throughout the unit.
- g. Coordinate with WDFW enforcement to minimize illegal activity through both emphasis and regular patrols.

5. Pond Enhancement

- a. Continue the unplanned project started in 2015 to restore / enhance the three waterfowl ponds near the trail off the Clevenger Road. Activities include continued removal of vegetation and expansion of the ponds. A cultural resource survey will be acquired prior to any ground disturbing actions.

Davis Lake Unit:

1. Storage building improvements - Make improvements to the barn and grounds to facilitate the utilization of the structure for storage and shop activities.

- a. Finish rocking the floor of the barn
- b. Install a new metal security door to replace the door that was vandalized in 2016.

2. Forage field management

- a. Continue forage field management activities. Check the fields and determine if chemical treatments are necessary to control weeds such as thistle. Check if necessary to control Scotch broom and blackberry within the forage fields and along

the field edges. Implement other agricultural activities such as disking, harrowing, and seeding as needed.

- b. Mow the 3-acre timber clearing and broadcast spray for blackberry.

3. Driveway and Barn “bare ground” management

- a. Chemically treat the driveway and the perimeter of the barn to maintain bare ground.

4. The Washington State Department of Transportation habitat project

- a. The Washington State Department of Transportation (DOT) has been given a permit to plant native shrubs and control reed canarygrass on a small area as part of a wetland enhancement obligation. The CWLA will monitor the project, direct access, and notify Tacoma Power if there are problems with the permit execution.

Peterman Ridge Unit

1. Road maintenance – Conduct vegetation control on roads to maintain passage and Department of Natural Resources (DNR) Forest Practices compliance (ongoing).

- a. Use chemical to maintain approximately 10 miles of road.
- b. Hire a contractor to mechanically brush “daylight” several priority roads.

2. Road Maintenance and Abandonment Plan projects (RMAP)

- a. Continue work abandoning small spurs and landings identified by the CWA staff as nonessential by working with the parties in the shared road agreement. When possible, these roads will be abandoned as a collaborative effort with Green Diamond Resource Company as they release roads back to Tacoma Power per their timber reservation agreement.
- b. Tacoma Power and CWA staff will apply to have the upgrade / repair of the two culverts on the 1300 Road accepted into the Family Forest Fish Passage Program (FFFPP) for possible future funding.

3. Silvicultural practices – thinning

- a. Assist Tacoma Power in managing the commercial and pre-commercial thinning (PCT) of units identified and recommended in the CWLA Timber Management Plan. Tacoma Power will fund the projects and Tacoma and the CWLA will jointly facilitate operations.
- b. Establish photo plots to monitor vegetation diversity before and after thinning operations.

4. Peterman Trail Construction

- a. Assist Tacoma Power with identifying and flagging the remainder of the 10 miles of the Phase Two Peterman Trail construction project.
- b. Assist Tacoma Power with implementation of Phase Two Peterman Trail contract.

Kiona Creek Unit (formerly known as Smathers Unit):

1. Forage field management

- a. Check and determine a course of action appropriate to the objectives for the 20 acres of field the CWLA is trying to improve and enhance for the benefit of wildlife. This project continues from 2015 and the objective of this project is to remove the existing reed canarygrass through chemical scalping and competition and replant the fields in early spring with a forage mix that will benefit wildlife.

2. Repair breach risk on agricultural ditch

- a. Kiona Creek has relocated its channel and now the bulk of the flow enters the property via a historical channel location approximately 300 yards north of the previous channel along the south side of the property. The creek flows into an agricultural ditch that drains to Squaw Creek. However, the bank of the ditch is susceptible to erosion especially during high flows. Additional riprap needs to be installed to provide bank protection during high flows.

Spears Unit (formerly known as Gibbs Lake):

1. Spears Mill Pond Project

- a. CWLA staff plans to continue with planning efforts for the installation of an automatic pumping system to maintain water levels within the pond. The conceptual plan is to run electricity to a removable pump that is controlled by an automatic float mechanism. Upfront costs will likely be high, so the CWLA will continue to maintain this project as a priority but availability of funding will guide implementation timing.
- b. To maintain the water right the CWLA will rent a portable pump, if necessary, to pump water in accordance with the provisions of the water right.

2. Old Mill Foundation Project

- a. The Fill and Grade permit with Lewis County was renewed and CWLA staff will continue with the project to fill the old foundations with clean dirt material. An additional objective of this project is to provide plantable soils in areas where soil compaction is high, limiting diversity in the vegetation community. CWLA will continue to work with local agencies (City of Morton, DOT, and Lewis County) to acquire the necessary fill materials. The permit is good for an additional 7,000 yards.

3. Vegetation Management Activities

- a. Scotch broom on this unit continues to be a problem because of neighboring properties providing a seed source. Chemically treat various locations to control Scotch broom, blackberry and to manage the roadside vegetation around the pond.

Buffer Zones:

1. Property Boundaries

- a. CWLA staff will monitor property line issues periodically through a variety of means such as checking aerial photos through Lewis County's online parcel mapping software and on the ground observations while conducting activities in the field.
- b. CWLA staff will monitor the restoration of the impacts, created by the Green Mountain Homeowner's Association landowner, to the wildlife area. The landowner has the necessary permits and will perform the necessary work when the ground is dry enough to allow access without additional impacts.
- c. The CWLA will add a data layer within ArcGIS to capture boundary line information to track locations where boundary signs have been posted or property lines are readily identifiable.

2. Weed Monitoring and Control

- a. CWLA staff will monitor for noxious weeds within the buffer zones. Monitoring efforts will be conducted utilizing a variety of means. Generally, efforts will target those sites that are adjacent to or downstream of a known location as well as those reported through other sources. Note – many of these locations are remote and require shoreline access via boat which has made survey efforts challenging. The CWLA staff is looking for a feasible way to meet this challenge.

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Want to see the full plan?

Go to –

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