EAST REGION
Bruce Eddy, Region Manager

Beaver Creek Dam Fishway
Surveys found steelhead spawning in upper Beaver Creek for the first time in more than 100 years after a fishway installed in late 2017. Beaver Creek Dam has blocked steelhead access to upper Beaver Creek since 1910. The dam and its reservoir provided municipal water for the City of La Grande until 2002. Even though the city is not currently using the reservoir, maintaining it as a future water supply is a priority.

The city, department, Forest Service, Grande Ronde Model Watershed, National Marine Fisheries Service (NMFS) and others have worked together for nearly 20 years to design, permit, fund, and install a fishway over Beaver Creek Dam. As part of this effort, the city hired a local engineering firm, Anderson Perry and Associates, to design the fishway in collaboration with department and NMFS engineers and biologists.

Funding to build the fishway came from several sources including the City of La Grande, Oregon Water Resources Department, Oregon Watershed Enhancement Board, and Grande Ronde Model Watershed. The Wallowa-Whitman National Forest provided environmental compliance. Completion of construction occurred in the fall of 2017 and the fishway began operation soon afterwards.

What resulted is a one-of-a-kind fishway involving placement of 60 pre-cast concrete weirs to span the 40-foot drop over the dam.

Imnaha Weir
Installing a weir or trap in a stream is a fine balance between value of catching a particular fish species as part of an inventory and the risk of unintentional injury to fish that pass the facility. Whether the facility is a screw trap operated to understand the status of a tributary steelhead population or a hatchery weir installed to collect Chinook broodstock while safely passing other species, staff take a great deal of care operating these facilities and safely handling the fish they catch.

The Imnaha Weir is a good example of what goes into building and operating a facility. Originally installed as an electrical weir in the 1980’s, the Imnaha Weir proved inefficient at catching and passing spring Chinook. Over the years, the facility was changed to a picket weir but remained problematic. Installation of a new weir in 2016, effectively managed Chinook broodstock collection as part of the Lower Snake River Compensation Program.

While the new weir is working well, biologists needed to know what, if any, effect it might have on bull trout migrating upstream. Working with U.S. Fish and Wildlife Service, and the Nez Perce and Umatilla Tribes, we devised operating protocols to minimize handling of bull trout at the
weir and monitored how they responded to these changes.

The results have been very encouraging. Monitoring of PIT tagged bull trout suggests that about 94 percent of Imnaha bull trout migrating past the new weir do so before installation or through gaps left under the weir. Video monitoring found that bull trout easily pass through the gaps under the weir. The remainder pass safely though the trapping facility.

**Odell Bull Trout**

The department considers the Odell Lake bull trout, listed as Threatened under the federal Endangered Species Act, to be a critically sensitive population. The Odell Lake population of bull trout are also an Oregon Conservation Strategy Species. Problems the bull trout face include competition with and predation by lake trout, hybridization with brook trout, degraded spawning and rearing habitat, and threats associated with small population size.

The department’s Native Fish Investigations Program is evaluating the status of Odell Lake bull trout and working to understand their ecology and the threats they face. Work so far suggests abundance in Trapper Creek, their major spawning tributary, is critically low and potentially decreasing. Introduced lake trout have replaced bull trout as the Odell Lake system’s most abundant apex predator. Juvenile bull trout rear in Odell Lake tributaries other than Trapper Creek, albeit at extremely low abundances. Fine-scaled habitat evaluation is providing insight into which habitats to enhance for these bull trout.

Ongoing work is looking at the behavior and survival of juvenile bull trout throughout the Odell Lake drainage to understand habitat limitations and life-stage specific survival rates.

We are also working to determine the distribution and abundance of brook trout in the upper portions of Trapper Creek and its tributaries. This will help the Deschutes Fish District understand the threat posed by brook trout to these bull trout and the potential to manage this threat.

**Elkhorn Mountain Goats**

In the late 19th or early 20th century, the extirpation of Mountain goats occurred in Oregon. Efforts to reintroduce them to Oregon began in the 1950’s. The most successful of these efforts was in the Elkhorn Mountains of Baker County. From an initial release of 21 goats from Alaska, Idaho and Washington between 1983 and 1986, the herd has grown to more than 340 goats in 2019. Since 2000, we have moved more than 250 Elkhorn mountain goats to other Oregon habitats as part of our effort to restore goats to their historic range.

Today there are around 1200 Oregon mountain goats from the Cascades to the Wallowa Mountains.
This year, biologists from the department, U.S. Forest Service and Bureau of Land Management trapped Elkhorn goats to augment the southern Eagle Cap Wilderness population. Between July 29 and August 2, they trapped; GPS collared and moved four Elkhorn goats to the Eagle Cap Wilderness. The GPS collars will transmit data to help identify the southern Eagle Cap herd range.

WEST REGION
Bernadette Graham-Hudson, Region Manager

Upton Slough Tide gate Replacement & Aquatic Habitat Improvement
The U.S. Fish and Wildlife Service (USFWS) is making water management and fish passage improvements to the Upton Slough Unit of the Nestucca National Wildlife Refuge. A series of tide gates are being replaced and a new screening system installed at a large pump inside the diked area of the slough. The pump provides extra field draining for farming purposes.

The old tide gates were failing, and two of the three new gates were equipped with flow mitigators to allow a limited amount of seepage flow to occur on rising tides after the tide gates shut. The USFWS also is enhancing aquatic habitat by enlarging and reconnecting former slough channels to Upton Slough, and conducting grading and other measures to improve fish access and marsh aquatic habitat within the Upton Slough Unit. The installation of a new fish screen will prevent native migratory fish injury and harm associated with a large expeller pump that helps drain property associated with the refuge and the Little Nestucca Drainage District.

ODFW's fish passage staff reviewed and approved the USFWS's project proposal finding the project would significantly improve and restore fish passage connectivity between Upton Creek, Upton Slough and the Nestucca River Estuary. North Coast Watershed District fish staff provided technical assistance with fish passage, fish use, and other biological aspects of the project. The Dalles Screen Shop fabricated, and will install the new screen system.

Fish that will benefit from this project include Coho and Chinook salmon, cutthroat trout, steelhead, and Pacific lamprey. Coho salmon are the main Oregon Conservation Strategy Species to
benefit from this project, and chum salmon in the lower Nestucca may benefit. The project is in the coastal estuary habitat within the Coast Range ecoregion and the Nestucca Bay Conservation Opportunity Area.

The Siletz River Guide
The Oregon Wildlife Foundation recently funded the printing of 500 waterproof Siletz River Guide brochures produced by Mid Coast STEP and the Information & Education Division. The brochure includes river access area, fishing locations and seasons, amenities, restoration history, being a responsible river user, and other information about the watershed.

The brochures were distributed to local businesses, libraries, and Mid Coast ODFW partners including watershed councils and the Siletz Tribe. Brochures are also available to the public free of charge at the South Beach ODFW office. Work is underway on the Alsea River Guide.

Rogue Canyon Bear Issues
Central Point and Gold Beach wildlife staff met with the U.S. Forest Service, Bureau of Land Management (BLM), Oregon State Police, and USDA Wildlife Services to discuss the increased level of bear complaints this summer in the Rogue Canyon. The group discussed the need to properly deploy bear fences early in the season, and other solutions. The Forest Service and BLM are interested in pursuing policies that require rafters and hikers to have self-supported bear resistant devices including lock-boxes for waste and bear-resistant coolers. The current agreement and need to reform the bear working group to move forward on the issues was also discussed.

ODFW staff subsequently worked with the Forest Service to write and distribute a “bear aware” news release and social media posts asking canyon users to keep clean campsites and secure garbage. A two-day float trip through the Wild and Scenic section of the Rogue was conducted by ODFW, Forest Service, BLM, Oregon State Police and Wildlife Services to examine recent reports of bear conflict, contact recreational users, increase bear
education, explore logistics for accessing the canyon, and assist with non-lethal deterrents. Recommendations were made to develop additional outreach tools, improve coordination, and continue implementation of non-lethal deterrents.

**Leaburg Dam Lamprey Detection**

The Springfield fish staff received a grant from the Bonneville Power Administration through the NW Power and Conservation Council to determine the efficiency of monitoring equipment for counting Pacific lamprey at Leaburg Dam. The dam is the only lamprey counting facility in the upper Willamette Basin.

These funds are being used to capture, PIT tag and radio-tag Pacific lamprey for release into the McKenzie River below Leaburg Dam and then to monitor fish movement, determining detection rates for lamprey as they pass the dam. Staff also hope to determine possible passage routes of lamprey that we are unable to monitor with the current system.

Ben Clemens (State Lamprey Coordinator) and District fish staff surgically implanted radio tags into 29 lamprey and released the fish below Leaburg Dam. Three additional lamprey were PIT tagged and released. Four of these lamprey were captured in the Leaburg Dam tailrace and the rest were collected by hand from Willamette Falls. Ben assisted the District in setting up two stationary Pacific lamprey radio tag detection sites on the river located upstream and downstream of Leaburg Dam. Eleven lamprey apparently successfully passed Leaburg Dam and were detected at the head of Leaburg Lake. We considered that osprey, a known predator of lamprey which are plentiful on the McKenzie, could pick up lamprey and move them past our stations. However, we verified that detections were recorded mainly during the night hours when osprey are not actively hunting.

Where most of the lamprey traveled subsequent to detection is still a mystery as we have only located two upstream travelers with our mobile tracking units. In addition, Ben Andrus (McKenzie Hatchery) is checking camera footage from Leaburg Dam ladders for lamprey observations and noting the direction of travel and timing.

**INFORMATION AND EDUCATION**

Roger Fuhrman, Information and Education Administrator

**I&E Employs “Train the Trainer” Approach**

July through October is a busy time for the Education Team as they cross the state providing hunter’s education field days and outdoor skills workshops. The Shotgun Skills Workshop continues to be one of the most popular for a couple of reasons. First, it helps people decide if the shotgun sports are for them. Second, it is a prerequisite for our bird hunting workshops in the fall. I&E consistently receives positive feedback from attendees who appreciate the patience and enthusiasm of ODFW Education staff in helping them engage in a new activity that some may find intimidating at first.

I&E only has so many instructors on staff, so we are implementing a new “train the trainer” effort to increase the number of qualified volunteer shotgun instructors throughout the state. The first such training occurred August 17-18 at E.E. Wilson Wildlife Area near Corvallis. Volunteers were taught how to organize, prepare and conduct a workshop so they can be held in more locations throughout the state.

Outdoor Skills workshops are part of the agency’s R3 (recruit, retain and reactivate hunters and anglers) effort. By sharing the basic skills to get started, ODFW hopes to encourage more people to get into the outdoors and enjoy everything Oregon has to offer.

Hunter education field days are an important activity for thousands of first-time hunters in Oregon every summer. Students may start by taking either an online hunter education course or traditional classroom instruction. All youth must finish with a field day that includes hands-on safety training and demonstration of other hunting skills.
Field days are conducted by volunteers and our three I&E hunter recruitment specialists throughout the state. About 110 volunteer instructors were trained in providing field days consistent with recognized standards at the annual Statewide Hunter Education Conference in Canyonville in July. ODFW staff received high marks from attendees regarding the content and organization of the event.

The “train the trainer” concept is also being employed on the fishing side. Angler Education Coordinator Amanda Boyles trained 10 new volunteer angler education volunteers in Brookings August 10-11. Two current instructors also attended the training for a refresher session. Boyles is also coordinating with the STEP (Salmon Trout Enhancement Program) to better align Angler Ed and STEP. This coordination will maximize the impact of volunteers and ODFW staff in promoting fishing as well as fish conservation.

Social Media Update
More and more customers are engaging with ODFW via social media. In April-June, ODFW Instagram got more than 20,000 engagements; Facebook received more than 132,000; and our Twitter account racked up 6,000 engagements. The most popular topics included new big game regulations, western fence lizard information and articles about razor claming. The first week of August was Shark Week on MyODFW Instagram. Five daily features racked up 2,237 likes, with the top feature (Baby Salmon Sharks) getting 615 likes.

MyODFW.com continues to be an important engagement tool as well. During the same quarter, the web page received almost 5 million unique page views. Popular features included the Weekly Recreation Report, trout stocking schedule and articles about big game hunting.

The National Archery in the Schools Program state championship tournament featured 113 students from 11 schools competing for prizes in Albany. ODFW provides NASP instructor training throughout the state.

Video Series to Help Hunters, Biologists
Every year in August, thousands of excited pronghorn hunters begin calling ODFW field staff in eastern Oregon. The hunters are happy to have finally drawn their tags after 15 or 20 years. However, many are anxious because they have never hunted antelope before and they have numerous questions. In past years, this has resulted in many phone calls to ODFW field staff asking the same basic questions repeatedly.

I&E staff worked with Wildlife Division field staff to develop a video series for first-time antelope hunters—preparing for the hunt, how to hunt pronghorn and how to care for the meat. The videos were posted on YouTube (https://www.youtube.com/watch?v=QVNyr0A8ekE&feature=youtu.be) and 2,300 antelope tag holders were sent an email with an overview and links to the videos. The main goals are to provide information to hunters and reduce biologists’ time answering the same questions repeatedly on the phone or in person. Pronghorn hunters will still have questions for ODFW staff, but hopefully the volume will be reduced. So far, the results are promising. The open rate for the email and click-through rate for the videos is well above industry standards, confirming that people are serious about getting information to make their pronghorn as successful as possible.
OREGON STATE POLICE
Captain Casey Thomas, Fish & Wildlife Division

A Fish & Wildlife Trooper completed an investigation in the Adrian area regarding a fawn being held in captivity. A subject admitted to capturing the fawn in a hay field on his property. The fawn was being kept in a dog kennel in the yard. During the contact the subject admitted that this was the third fawn they have raised in the past several years. The fawn was released prior to being seized from the subject. The subject was issued a citation for Take/Hold Young Game Mammal.

Fish & Wildlife Troopers, Lincoln County Hunter Education Program Volunteers, and members from the Lincoln/Yamhill County Oregon Hunters Association chapters conducted a Hunter Education field day at Big Timber Rifle and Pistol Club in Siletz. Ten kids and their parents attended the field day. Participants went through multiple rotations where they received instruction on ethics and hunting laws, shoot/don’t shoot scenarios, firearms safety, a blood tracking course, and a live fire exercise. The field day was a success and all of the kids who attended received their hunter education certification.

Fish & Wildlife Troopers conducted an overnight drift patrol of the Umpqua River above Elkton, covering approximately 25 miles of river. It was a busy holiday weekend on the river and numerous contacts were made. Two warnings were issued for No Resident Angling License. Additionally, two subjects were cited for No Resident Angling License.

CONSERVATION PROGRAM
Andrea Hanson, Oregon Conservation Strategy Coordinator

2019 Estimated Sage-grouse Population
The Oregon spring sage-grouse lek survey effort is one of the largest collaborative conservation monitoring programs currently ongoing in the state. From March 15 – April 30 2019, biologists from ODFW, the U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), Burns Paiute Tribe, and volunteers with ODFW’s Adopt-a-Lek program conducted 1,737 ground and aerial lek surveys at 755 individual lek sites. Hunter-harvested sage-grouse wings are analyzed to collected data describing the sex ratio of sage
grouse in Oregon. Lek count and sex ratio data are combined to estimate the 2019 sage-grouse spring breeding population.

Spring sage-grouse population numbers in 2018 declined -25 percent between 2018 and 2019, from 18,421 individuals (+/- 1,262 individuals) to 13,827 individuals (+/- 1,028 individuals). The 2019 spring sage-grouse population estimate in Oregon is at its lowest level since population analysis began in 1980 and is -53 percent below the 2003 sage-grouse population estimate. The 2003 sage-grouse population serves as the baseline against which ODFW compares annual sage-grouse population estimates. The negative trend observed in the statewide population estimate was relatively consistent across BLM Districts, with trends in the Burns, Lakeview, Prineville, and Vale BLM districts ranging from -17 percent (Vale BLM District) to -35 percent (Burns BLM District). The only BLM district to not exhibit a decline in population during 2019 was the Baker Resource Area (which is analyzed separately from the remainder of the Vale District), where we observed a +26 percent increase in population size. Unfortunately, it is probable that this increase is an artifact of our data analysis methodology, as only one additional male was observed in the Baker Resource Area in 2019 than in 2018.

Since 2006, the sage-grouse population in Oregon has cycled on a six to seven-year period with the previous population low in 2013 and the previous population peak in 2016. Thus, it wasn’t unexpected to see a population decline in 2019 especially given the drought conditions in eastern Oregon during the summer of 2018.

Unfortunately, late winter snow pack and wet April conditions made lek access difficult this spring and had the potential to depress sage-grouse lek attendance, potentially leading to an artificially low population estimate. While we are confident, some population decline occurred during 2019, we are less confident this decline was accurately captured by our population estimate methodology. The results of surveys in 2020 should elucidate the true extent of this spring’s decline.

A detailed report describing trends in survey effort and sage-grouse population size analyzed at the scale of individual Sage-Grouse Core Areas will be released in September 2019.

Successful Streaked Horned Lark Nesting, Herbert Farm Natural Area
The first streaked horned lark juveniles resulting from successful nesting on habitat created expressly for larks at Herbert Farm Natural Area (HFNA) were recently documented.

Since 2006, the streaked horned lark population in the Pacific Northwest has cycled on a seven to eight-year period with the previous population low in 2015 and the previous population peak in 2010. Environmental conditions in the spring of 2019 were mostly dry and hot, which is not conducive to successful nesting for larks. However, we observed a +26 percent increase in population size in the Baker Resource Area (which is analyzed separately from the remainder of the Vale District), where we observed a +26 percent increase in population size. Unfortunately, it is probable that this increase is an artifact of our data analysis methodology, as only one additional male was observed in the Baker Resource Area in 2019 than in 2018.

The Willamette Wildlife Mitigation Program-funded property owned by the City of Corvallis, and ODFW holds a conservation easement. Part of the site is being restored as mitigation for impacts related to work at Corvallis Airport that has affected lark habitat south of HFNA. It is exciting and gratifying to see restoration efforts paying off!

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Once imprinted on the site, the odds of these birds continuing to use HFNA are very high. The Institute for Applied Ecology, USFWS Partners Program, ODFW’s Habitat Program and Bob
Altman (American Bird Conservancy) are among project partners.

**RAWA Update**
The Recovering America’s Wildlife Act (H.R. 3742) of 2019 now has 98 co-sponsors in the House of Representatives, including Representatives Blumenauer, Bonamici, DeFazio, and Schrader from Oregon. Sponsored and introduced to the House in early July by Representative Debbie Dingell of Michigan, the bill has been referred to the Committee on Natural Resources.

“RAWA” is a bipartisan act that, if passed, could provide funding to conserve Oregon’s fish and wildlife by implementing the Oregon Conservation and Nearshore Strategy. ODFW could receive approximately $23.5 million to help conserve our 294 species of greatest conservation need, improve habitat, and expand research, education and recreation.

**Wildlife Intern Introduced to Amphibian Survey**
The Foothill yellow-legged frog is an Oregon Conservation Strategy Species and its listing status under the federal Threatened and Endangered Species list is under review. The West Region conservation biologist is collaborating with state and federal agencies to review threats to the species in Oregon. Develop a conservation strategy and update distribution data.

While the plan is being developed, our conservation biologist and a student intern from Maryland conducted visual encounter surveys this summer for the Foothill yellow-legged frog in the southern Oregon coast range to update current distribution information. The survey was a great opportunity to introduce a future wildlife biologist to amphibian surveys and data collection.

**Major Fish Passage Barrier Removed**
After years of planning, funding requests, multi-agency coordination, and permitting, the Baker Creek Culvert has successfully been removed. Baker Creek is a tributary to the South Fork Coquille River and provides habitat for Coho salmon, winter steelhead, cutthroat trout, and Pacific lamprey and will now be much more
accessible to those species. With greater fish passage, it may provide thermal refugia for other fish that need cooler water than the South Fork Coquille River, which warms as summer progresses.

The culvert has been a high priority for removal for many years, but was a very complex project and expensive to accomplish. It was only through the partnership of many entities that everything came together to make it happen this summer. Partners included the Coquille Watershed Association, BLM, U.S. Fish and Wildlife Service, Coquille Indian Tribe, and Weyerhaeuser, and in addition, the project received funding through the ODOT-ODFW Culver Repair Programmatic Agreement.

![Baker Creek culvert and fish ladder](image1.jpg)

With the advent of other renewable energy sources, e.g., wind and solar, demand for hydropower has begun to change, with sharp peaks in prices in the morning and evening hours (Figure 1.) With this concept in hand, and in an attempt to balance fish needs and power costs, a broad coalition of states, tribes, and federal agencies signed a short-term (2019-2021) Flexible Spill Agreement in the winter of 2018.

![After the removal of the culvert](image2.jpg)

This short-term agreement follows this basic premise: during certain periods during the day market forces will cause hydroelectric generation to be more profitable (Figure 1). If power generation is focused on those periods, spill can be increased during the remaining hours. In this way operations can basically be revenue neutral, provide enhanced spill for salmon and steelhead, and with predictable operations. Although modeled fish benefits are not enough for recovery, the increased benefits should provide a “win-win” for all parties during this interim period while allowing space to focus on longer-term solutions considered in the court-mandated Columbia River Systems Operations Environmental Impact Statement (to be completed in 2020 or 2021).

Under the agreement, during the 2019 spring outmigration, spill to about 120% total dissolved gas (TDG)—the maximum legally allowed in 2019 and meant to provide protections for salmon and steelhead—was generally provided for 16 hours each day at the eight lower Snake and Columbia river dams. During the remaining eight hours, reduced spill allowed for greater power generation. Operations in 2020 and 2021 should follow a similar formula with one main exception: spill for fish during the 16-hour period will be increased to a revised legal maximum of 125% TDG, a level that in the past has been witnessed in the Columbia Basin only during periods of uncontrolled spill.
With conclusion of this year’s spring spill season, the Fish Passage Center in Portland developed an initial review of the 2019 operation. Their preliminary analysis highlighted the experimental nature of these operations, indicated a small benefit to salmon, and noted where expectations were not always met. Until adults from this outmigration begin to return, the actual benefit of the operation will not be known.

The 2019–2021 Flexible Spill Agreement represents somewhat of a milestone. For the first time in decades, parties with divergent ideas on how dams in the lower Snake and Columbia Rivers should be operated have set aside differences to develop a plan that may benefit multiple competing interests. While it is still too early to gauge the full efficacy of these new operations, ODFW believes the agreement itself—signed or supported by every regional sovereign—is a step in a direction towards providing greater protections for the salmon and steelhead that help define the State of Oregon.