

Environmental Leadership: Daly Creek Work Offers a Look at Idaho Power's Commitment



Standing on the bank of Daly Creek, looking upstream to where the creek disappears beneath sun-dappled willows, it's hard to imagine the scene was dominated by heavy equipment, silt fences, and a flurry of human activity only months earlier.

This creek south of Richland, Oregon, is one example of Idaho Power's ongoing efforts to improve habitat on the 11,400 acres of the Daly Creek Habitat Management Area. The company bought this property in 2005 to compensate for impacts to wildlife habitat from the Hells Canyon Hydroelectric Project.

Today, this stretch of Daly Creek flows more like it did when the first European settlers homesteaded the area, drawn by the cool waters that irrigated crops and livestock in an otherwise dry and unforgiving landscape.

Back then, it was common for these hardscrabble settlers to use all the water in Daly Creek. The creek was reduced to little more than an irrigation ditch in some sections. In others, it became a watering hole for cattle. Overgrazing along the streambank when the heat of summer had parched the upland grasses occurred year after year, removing woody vegetation. These changes to the ecosystem and agricultural pressure all but eliminated beavers from the area. This ensured their dams and ponds did

not block irrigation diversions or flood agricultural land.

Over a century later, resource management has evolved. We now understand confining a creek to a narrow channel, removing trees and shrubs from the streambank, and diverting water until a creek runs dry harms fish and other water-dependent creatures such as frogs and beavers. Overgrazing cattle can damage native plants in the summer. When beavers are removed, creeks cut deep, unstable banks that don't support plants, allowing sediment to fall into the creek. The combined effect can raise water temperatures to a point where native species cannot survive.

Idaho Power's management at Daly Creek focuses on passive restoration: avoiding activities that cause damage and allowing natural systems to flourish. In 2007, Idaho Power began limiting cattle grazing to late winter through early spring. This has allowed native plants to recolonize the creek banks. Beavers have returned, and these furry engineers continue to expand their dams. In some areas, Daly Creek restoration has accelerated with the establishment of beaver ponds, likely benefitting both aquatic and terrestrial wildlife, such as native redband trout and waterfowl.

Our habitat managers are also exploring strategies to re-establish upland habitat

by combatting noxious weeds and planting vegetation that benefits wildlife and insects. Idaho Power has removed miles of internal fencing to allow wildlife to move more freely within the management area, while upgrading external fences to reduce trespassing by cattle. Water conservation measures include taking lands out of agricultural production, switching from flood irrigation to sprinklers, and replacing open ditch irrigation with a pressurized system. These steps have decreased water diversions from Daly Creek by an estimated 50 percent.

In 2016, Idaho Power removed the first of three old diversions on the creek, replacing it with a new modern diversion and screen that keeps fish from being carried into irrigation channels and prevents the creek from drying out. Last fall, the company removed the two remaining diversions, restoring the creek channel to a more natural condition and giving fish access to the full length of the creek.

Daly Creek may not be exactly as the settlers found it, but Idaho Power continues to restore this waterway and the land around it. Learn more at idahopower.com/habitat.

Tracking Sturgeon Success in the Snake River

Even creatures with a history dating back more than 100 million years can use a helping hand. White sturgeon in the Snake River get plenty of help from Idaho Power biologists, who track their numbers, add to their population and move adults into good spawning areas.

In Idaho, the two largest reproducing populations of white sturgeon are below Bliss and Hells Canyon dams. Sturgeon in these areas can live to be 100 years old, grow up to 10 feet long and weigh more than 300 pounds.

Idaho Power biologists collaborate with state and tribal fisheries managers to study, protect and enhance Snake River sturgeon populations. This includes population surveys. Biologists weigh and measure the fish, take tissue samples for genetic identification, and implant tiny electronic tags that researchers use to identify fish that have been previously captured. This enables biologists to track abundance, growth and survival rates, and other information.

The company also nets (and releases) tiny sturgeon during their first or second year of life to determine how much natural reproduction is taking place in key areas. The last two years, with ample snowpack and high river flows, have been good for sturgeon spawning according to Ken Lepla, Idaho Power's lead sturgeon biologist.



In areas of the Snake River where sturgeon populations are not self-supporting, Idaho Power works with Idaho Department of Fish and Game and the College of Southern Idaho (CSI) to raise sturgeon from naturally produced eggs and larvae. Collecting eggs and larvae directly from the river provides stockable offspring that are more genetically diverse and more similar to the wild population.

Egg mats are one tool used to collect eggs for the conservation program. Picture a 2-foot-square metal frame with a furnace filter in the middle. These mats are placed downstream of known spawning areas where they collect fertilized eggs. Biologists take the eggs to the CSI sturgeon hatchery in Twin Falls. The fish stay there for about a year until they are about a foot long and can be released back into the river. From there, Idaho Power biologists follow their progress in the wild to ensure fish are doing well.

Another important tactic is moving reproductive adult fish from below C.J. Strike Dam upstream to more favorable spawning habitat in the Bliss reach of the Snake River. Learn more at idahopower.com/fish.

Our Fleet is Going Electric – and You Can, Too

Imagine cutting your driving costs by half or more. You could save hundreds of dollars every year. It's possible when you switch to electric vehicles (EVs).

"You'll pay about 95 cents for enough electricity to drive as far as a gallon of gas will take you," said John Bernardo, Idaho Power's Sustainability Program Manager.

Those savings are one reason Idaho Power is replacing fuel-burning cars, trucks and forklifts with vehicles powered by electricity.

In 2018, Idaho Power added eight plug-in hybrid electric pickups and three electric passenger cars. We bought six electric forklifts in the past three years, and we plan to add four more in 2019. In the years to come, we'll continue our transition toward an electric fleet.

Besides saving money on fuel, we're seeing lower costs for maintenance, Bernardo said, because EVs have fewer than half as many mechanical parts as fuel-powered vehicles. And they don't need as many fluids, like engine oil or transmission fluid.

Idaho Power customers will benefit from these savings with lower electricity rates.

"We also are doing it to show our customers these things work; they're reliable, and it's a good idea to switch over," Bernardo said.

Another important benefit of EVs is that they don't produce tailpipe emissions, Idaho Power is sensitive to the impact its operations have on the environment, so reducing emissions, including carbon emissions, is important to us.

And because about half of Idaho Power's electricity comes from clean hydroelectric power, charging an electric vehicle is cleaner than driving a gas-powered car or truck. Learn more at idahopower.com/EV.



From The Electric Kitchen

February 2019

Mixed-up Cuban Beans and Rice

Dinner

3 Tbsp olive oil	2 cans low-sodium black beans
½ medium red onion, chopped	1 cup mango, cubed
1 large bell pepper, chopped	½ cup pineapple, chopped
1 tsp cumin	1 cup frozen, shelled edamame
¼ tsp oregano	1 cup brown, long-grain rice
2 cloves garlic, minced	Salt and pepper to taste
1 can fire-roasted diced tomatoes	Fresh cilantro, chopped

Dietary information:

Calories: **250**
Fat: **6.6g**
Carbohydrate: **36g**
Protein: **12.2g**
Sodium: **61mg**
Fiber: **10.4g**
Potassium: **558mg**

Cook rice according to package directions. In a large skillet, heat oil over medium. Add onion and bell pepper, sautéing until softened, approx. 7 minutes. Add cumin and garlic, cook and stir until very fragrant, approx. 5 min. Add tomatoes, beans, fruit and edamame. Bring to a simmer, cover and cook for 15 minutes, stirring occasionally. Season with salt, pepper and oregano. Serve ½ cup of rice with ¾ cup bean mixture. Top with cilantro. Makes approx. 8 servings.

Recipes are selected for nutritional value and low energy use in preparation. They are approved by Registered Dietitian Erin Green from the Central District Health Department in Boise.