



### Information

- Self-guided tour
- Spawning viewing – available during spawning season in September – call for spawning dates and times
- Guided tours for groups
- Available Monday-Friday 7:30 a.m. – 4:30 p.m.
- Please call 541-896-3513 in advance to schedule a tour
- Visitor center and displays
- Juvenile fish available for viewing all year
- Adult spring Chinook on hand May through September of each year

### Special Features

- Spawning room
- Adult fish ponds
- Rearing ponds
- Chinook spawning takes place during September
- Interpretive displays
- Picnic area and naturescaping
- Wild trout display (bull – rainbow – cutthroat)



### Local Sites of Interest

- US Forest Service hiking trails
- McKenzie River National Scenic Trail
- Aufderhide Scenic Byway
- Sahalie and Koosah waterfalls hike
- Old McKenzie Highway – weather permitting
- Cougar Recreation Area

### Partners and Funding

ODFW operates McKenzie Hatchery with funding from the U.S. Corp of Engineers.



### Directions

Travel 22 miles east from Eugene/Springfield on Hwy. 126. McKenzie Hatchery is located two miles east of Leaburg at milepost 22.

### Visitor Hours

7:30 a.m. – 4:30 p.m. October – April  
7:30 a.m. – 8:00 p.m. May – September

### Office Hours

7:30 a.m. – 4:30 p.m.

# McKENZIE FISH HATCHERY



## Visitor Guide



# WELCOME TO McKENZIE FISH HATCHERY



McKenzie Hatchery is located in western Oregon 22 miles east of Springfield at river mile 36. The McKenzie River originates in the Cascade Range and empties into the

Willamette River near Eugene, which then flows northward into the Columbia River.

McKenzie Hatchery was first constructed in 1938 and rebuilt as you see it today in 1975. Today, 30 rearing ponds, a visitor's center, spawning room, egg incubation facility, office, feed storage, shop area, fish ladder and picnic area are the main components of the facility layout.

The McKenzie River has one of the most pristine, naturally reproducing wild populations of spring Chinook in the Willamette Basin.

At McKenzie Hatchery, our goal is to supplement the run of spring Chinook salmon by rearing and releasing nearly 1.2 million smolts each year into the McKenzie River.

Hatchery water temperatures vary between 58 to 38 degrees from September through December each year. Eggs spawned in early September would be at a "strong eyed stage" approximately in mid October and completely

developed and ready to be placed in a pond to begin feeding by Christmas and throughout the month of January.

McKenzie Hatchery has 30 raceways which are 75 feet long by 16 feet wide and are approximately 40 inches deep. Since the fingerlings are very small as many as 300,000 are placed into a single pond. During the months of June and July all of the fingerlings receive an adipose fin clip for angling identification purposes. Also at this time the ponds will be filled to carry between 35,000 and 55,000 fish until release.



Oregon Department of Fish and Wildlife

43863 Greer Drive  
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(541) 896) 3513

Northwest Oregon

Oregon Department of Fish and Wildlife



### Best viewing opportunities

- See adult salmon mid-May to early October in the holding pond.
- See adult salmon spawning from mid-September to early October.
- See juvenile salmon tagging and fin clipping mid-June through July.
- Visit our picnic shelter, nature scaping area and visitor center.
- Take a self guided walking tour year round.

### Salmon life cycle

Chinook salmon are “anadromous” fish species. That means they hatch in fresh water, then swim to the ocean when they reach the smolt stage at about 6 inches long. Spring chinook generally migrate at 10 to 15 months of age. While in the ocean they will grow and mature to adulthood.

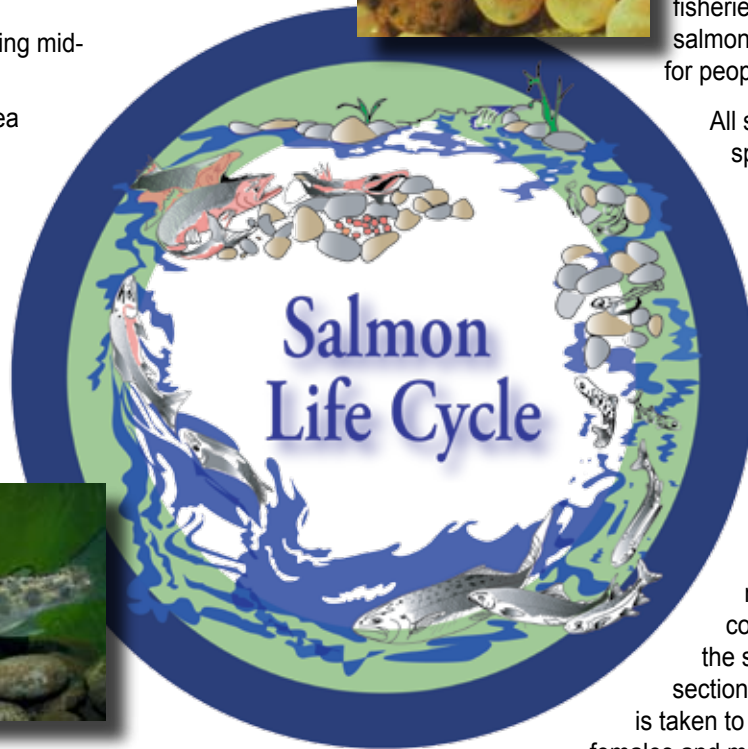


Chinook return from the ocean when they are 3 to 5 years old. They swim back upriver to their stream or hatchery of origin to spawn where their life began. These fish serve as parents for the next generation.

Each female chinook salmon carries about 4,500 eggs. This is a useful survival strategy, because most of the young do not survive the long journey to the ocean and



back, whether they hatch in the wild from gravel nests called redds or are raised in a hatchery. For example, of every 1,000 salmon that McKenzie Hatchery releases, only three return as adults. On their journey, salmon encounter predators, dams that impede their travel, river and shore environments that may be harmful, and variable ocean conditions. Sport, commercial and tribal fisheries also catch salmon to provide food for people.



All salmon die after spawning, which completes their life cycle. Steelhead, however, may return to the ocean one or more times.

### Adult Collection and Spawning

Spring Chinook start arriving in mid-May and are collected throughout the summer. A cross section of the whole run is taken to get the necessary females and males for spawning. These fish are held in out holding ponds until mid-September when the spawning season begins. At this time all females and male fish are checked for ripeness once a week for up to five weeks.

When fish are ready for spawning, hatchery technicians crowd the fish towards a mechanical crowder that moves



fish toward a lift. The lift raises fish to an anesthetic tank and onto the sorting table in the spawning room. Hatchery workers place eggs taken from females into buckets where they are fertilized with sperm from males. All salmon die naturally after spawning, but in the hatchery setting adult fish are killed humanely prior to the artificial spawning process.



### Incubation

McKenzie Hatchery can incubate up to 4 million eggs annually. After spawning, the fertilized eggs are transferred to trays in the incubation room. The eggs develop at a rate controlled by the temperature of the water that continuously flows over them. Hatching occurs in as few as 50 days depending on water temperature. Fish that hatch in the incubators are known as sac fry. After these small fish have absorbed the yolk – a process called “buttoning up” – they are called fry and instinctively swim upward in search of food. Hatchery technicians then move the fry to the rearing ponds.



### Rearing

Spring chinook fry at McKenzie Hatchery are usually moved into the rearing ponds starting in late December through January. McKenzie spring Chinook are released as 5 to 8 inch smolts after being raised in the rearing ponds for 10 to 15 months. Nets and wires over the ponds reduce predation by birds feeding on the young fish.

### Feeding

Hatchery workers feed the fry each hour during daylight hours. As the fry grow, feeding becomes less frequent and will be as little as once per day. Hand feeding is done with dry pellets made from animal, vegetable and mineral products. The



pellets come in various sizes for feeding fish of different ages. Each pound a young fish gains requires about one pound of fish food.

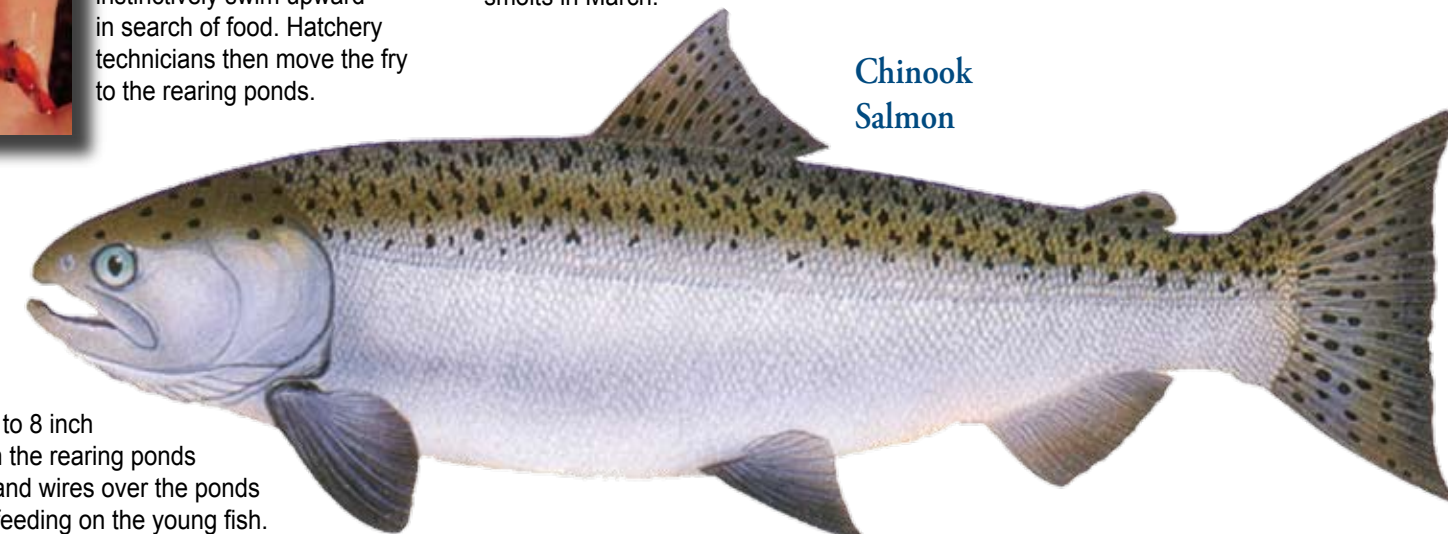
### Fish diseases are present in the natural environment

Hatchery fish can be susceptible to disease due to the large numbers of fish in rearing facilities and the stress of the crowded

environment. Fish pathologists routinely take fish tissue samples and treat any diseased fish.

### Fish reared and released

Each year, McKenzie Hatchery raises 1.2 million spring Chinook. The Chinook are released into a pipeline that takes them directly to the fish ladder that flows into the McKenzie River. Hatchery personnel release approximately 350,000 smolts in November, 400,000 smolts in February and 450,000 smolts in March.



Chinook Salmon

Illustrations by Joeseeph Tomelleri

### Marking fish prior to release

Before release, crews mark all of the young salmon by clipping their adipose fins. Approximately 15% of the young salmon have a tiny coded wire tag inserted mechanically into its snout. Fisheries technicians working on docks or at canneries or conducting creel surveys remove the snouts of fin-clipped fish caught in sport and commercial fisheries if the tag is present. They freeze the snouts and later recover the tags using a metal detector. The information recorded on the tags helps fisheries managers determine the hatchery of origin, the release date and location, and where and how many fish have been harvested.

