

# Fish need Water!

Friends of Butte Creek  
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2007

## About 200 spring-run salmon may die before they spawn

By LARRY MITCHELL - Staff Writer

Posted: 06/27/2007 12:48:09 AM PDT



A dead salmon is seen along a bank of Butte Creek downstream from the Highway 99 bridge...

About 200 spring-run salmon, swimming in Butte Creek just south of Chico, will apparently die this summer before they can spawn.

Action to try to save the big fish has been suggested.

However, Tracy McReynolds, a fisheries biologist with the state Department of Fish and Game, said her agency has decided it's best to leave the salmon alone.

The salmon in lower Butte Creek are certainly stressed, and they may be diseased, she said. If that's the case, encouraging them to join the rest of the run farther upstream, may infect healthy fish.

It seems best to let nature take its course, she said. Butte Creek's spring-run salmon are a treasured resource. They're designated a threatened species, for one thing. But also, Butte Creek is one of the few places in the Sacramento Valley where large numbers of the fish still spawn naturally instead of in fish hatcheries.

The salmon live for three years. They hatch in the late fall or winter in the upper parts of Butte Creek. In the spring, the baby fish migrate downstream to the Sacramento River and then on to the San Francisco Bay and the ocean. Three years later, in the spring, they return to Butte Creek.

By this time of year, the salmon that returned should be in deep, cold pools in far up the canyon. Right now, in fact, thousands of them can be found there. They'll wait out the hot summer and in the fall, spawn and die.

This year, for whatever reason, some of the salmon haven't gone into the canyon. They're swimming around in the creek south of Highway 99.

If they don't move up into the canyon, where there's colder water, they will die before they can spawn in the fall, McReynolds said. High water temperatures will kill them.

Allen Harthorn, executive director of Friends of Butte Creek, said he'd like to see something done to save the salmon in the lower part of the creek.

PG&E and a couple of farms could reduce their diversions temporarily, he said. That would cause more water to rush down the creek and might convince the reluctant salmon to go on upstream.

Harthorn and McReynolds both said the salmon might move upstream on their own, given some more time.

But McReynolds said the fish are already stressed from being in water that's too warm, and they may have become diseased. It could be a mistake to encourage them to join the rest of the run, she said.

Harthorn said there's no evidence the fish are diseased.

McReynolds said her agency's decision not to try to get the remaining salmon to go farther upstream is based on a couple of things.

One is the health issue. The other is it appears there are plenty of spring-run salmon in the upper part of the creek already this year.

Harthorn, whose organization seeks greater environmental protection for the Butte Creek watershed, said he questions the notion that there are "enough" spring-run salmon in the upper part of the creek.

"How can it be that there's too many fish, yet we can't fish for them?" he said.

The spring run of salmon on Butte Creek used to be huge. But by the 1970s, it had dwindled to just a few fish in some years. That was apparently because of low flows, dams that blocked the fishes' way, unscreened diversion ditches, development and other human activities. Then efforts were begun to restore the run. Dams were removed. Diversions were screened. Harthorn, who lives in Butte Creek Canyon, said he thinks the most helpful changes were adding more water to the creek. In the 1970s, the creek, in the summer, was pretty much a network of pools connected by trickles of water.

In the 1970s, PG&E had to release 10 cubic feet per second of water into the creek above the Centerville Powerhouse. In the 1980s, that was doubled, to 20 cfs. The big change, according to Harthorn came in 1992, when the federal government ordered the power company to release 40 cfs to help the fish.

"Since that flow was increased, we've seen remarkable returns," Harthorn said. Removing dams and fixing fish ladders, which occurred later, helped, too.

In 1992, the total number of fish that spawned in the creek was 750, he said. Three years later, 7,500 fish spawned.

The size of this year's run won't be estimated until after the fish spawn in the fall, but Harthorn said there may be 15,000 salmon in upper Butte Creek right now, waiting for the time to spawn.

If people swimming, boating or tubing in the creek encounter salmon in the summer, the best thing they can do is leave the fish alone, he said. The salmon are resting after their long trip home and saving their energy for spawning. It's bad for their health if they get scared and have to swim hard.

Limited fishing for spring-run salmon used to be allowed on Butte Creek, but it was discontinued in 1994. Harthorn, who is an angler, looks forward to the day it will be allowed again. He said better research needs to be done on Butte Creek's spring-run salmon. More information should lead to better management of the creek to benefit the fish.

There are unanswered questions, he said. For example, while Fish and Game insists that the spring-run fish can't survive in warmer water, he's heard anecdotal evidence to the contrary.

Although McReynolds denies it, he said he believes it's possible that some of the 200 fish downstream from Highway 99 might survive the summer and spawn in the fall.

## 2008

### **Saving salmon: Hundreds of fish rescued on creek**

By LARRY MITCHELL - Staff Writer

Posted: 07/03/2008 12:00:00 AM PDT

A once-stranded salmon swims out into Butte Creek Wednesday after being released. State Fish and Game officials captured nearly 300 adult salmon in shallow water below Highway 99 and trucked them above Okie Dam and released into deeper water.(Ty Barbour/Staff Photo)



CHICO -- More than 300 spring-run salmon got a helping human hand to make it home Wednesday.

The big fish were in two pools in Butte Creek, just west of Highway 99, and probably would have died when the water got too warm, officials from the state Department of Fish and Game said.

Altogether, 359 salmon were captured in nets, put into hatchery trucks and then returned to the stream in Butte Creek Canyon, where it was hoped they'd be able to spawn, said Harry Morse, a spokesman for Fish and Game.

These salmon, like thousands of others in the run, hatched in Butte Creek Canyon three years ago. Since then, they've been living in the ocean.

In the spring, the fish returned to Butte Creek, and most of the run swam far up into the canyon, where they'll spend the summer in cold, deep pools until it's time to spawn in the fall.

For some reason, the fish that were rescued Wednesday didn't swim into the canyon. They only went as far as a couple of large pools just west of Highway 99.

Neighbors had been watching them and discussing the situation by e-mail with salmon advocates over the last week or so. Requests for action by Fish and Game were made.

The same thing happened last year. Salmon remained in the creek west of Highway 99. Advocates asked Fish and Game to save them, but the response was that action wasn't warranted.

According to e-mails that were forwarded to the E-R last week and earlier this week, Fish and Game initially responded to this year's requests to save the fish by again saying a rescue couldn't be justified.

However, Joe Johnson, a senior environmental scientist with Fish and Game, said he came to Chico from his office in Rancho Cordova on Monday to assess the situation. He said he concluded a rescue was feasible and decided to attempt one on Wednesday.

Morse said it was decided to do the rescue this year for a couple of reasons. For one thing, salmon numbers are low throughout the West. Last year, it was estimated that more than 12,000 spring-run salmon went up Butte Creek to spawn. This year, the estimate is between 5,000 and 6,000.

Also, last year there was concern that the lagging salmon were diseased and could infect healthy fish if they were moved in with them. This year, the salmon below Highway 99 seemed to be quite healthy.

The operation began at 6 a.m. Wednesday. It involved 27 people from Fish and Game and three biologists from the National Oceanic and Atmospheric Administration, Morse said.

Johnson said nets were used to gather the fish into a small area. From there, workers caught the 10-to-25-pound fish, one or two at a time, in long-handled landing nets. The netted fish were passed from worker to worker, as in a bucket brigade, up the bank, where they were put into three hatchery trucks with water tanks.

The trucks took the fish to just above the Parrott-Phelan Diversion (Okie) Dam, perhaps a mile from the junction of Skyway and Honey Run Road. There, with the same technique used to load them, the salmon were put back in the creek. It was hoped they'd swim far upstream to cold pools and that they would spawn this fall.

Before the fish were released, a worker clipped their tail fins so they could be identified later.

Johnson said for the last few years, a Fish and Game team has been studying how many salmon in Butte Creek die before they spawn. That team will try to tell how many of the rescued salmon die before spawning this year.

Butte Creek's spring-run salmon are listed as "threatened" under the Endangered Species Act.

**BACKGROUND:** While 5,000 to 6,000 spring-run salmon reached upper Butte Creek this spring, more than 300 remained in the lower part of the stream, where they seemed doomed.

**WHAT'S NEW:** On Wednesday, the Department of Fish and Game rescued the salmon that hadn't swum far enough, moving them by truck into Butte Creek Canyon.

**WHAT'S NEXT:** A similar situation occurred last year, but the fish weren't rescued, and according to a creekside resident, they died. A member of Friends of Butte Creek said he hoped a way could be found to prevent the problem from recurring.

## 2009

### **State Fish and Game wants PG&E to put more water in Butte Creek for salmon**

By LARRY MITCHELL - Staff Writer

Posted: **07/02/2009** 12:05:32 AM PDT

CHICO -- The state Department of Fish and Game wants PG&E to put more water in Butte Creek to benefit salmon.

The stream has one of the last remaining runs of naturally spawning spring-run salmon in California.

It's believed more water would contribute to keeping the run viable, and it might help prevent fish from being stranded downstream, said Joe Johnson, a senior environmental scientist with Fish and Game.

On Tuesday, 26 salmon were rescued by Fish and Game workers from the creek below Highway 99. The fish were caught with nets and trucked upstream.

If they had been left in the creek, they would have died once the water warmed up, Johnson said.

Spring-run salmon in Butte Creek and other waters of the Sacramento River system are classified as "threatened" under the Endangered Species Act. Special efforts have been made to restore them, such as removing dams and increasing water flows.

These seem to have helped. The Butte Creek run, which once numbered only a few fish, has grown to several thousand in recent years. This year, however, the numbers of salmon generally have been down. Johnson said it's impossible to say exactly why because there are so many potential factors.

PG&E, which operates the DeSabra-Centerville power project in Butte Creek Canyon, is applying for a new federal license for the operation. In connection with that application, Fish and Game has recommended the utility leave more water in the creek at certain times rather than using it to generate power.

Paul Moreno, a spokesman for PG&E, said the company doesn't oppose the Fish and Game proposals. According to a Fish and Game report, in 1992 it was agreed PG&E would release at least 40 cfs (cubic feet per second) of water into the creek between June 1 and Sept. 14.

In a new proposal, Fish and Game recommends that minimum flows vary between 40 and 100 cfs depending on the time of year and whether rainfall has been light or normal.

Clint Garman, a fisheries biologist who works out of Fish and Game's Chico office, said one pressing problem is warm water that comes into Butte Creek from DeSabra Reservoir. There are several proposals for fixing that, including piping cold water directly into the creek rather than letting it sit in the reservoir.

He said PG&E has practiced good environmental stewardship in the canyon, and that the spring run has flourished over the last decade. Changes should be made in "baby steps" to avoid causing setbacks for the run, he said.

In Tuesday's salmon rescue, tiny radio transmitters were put in the stomachs of the 26 fish. Crews from Fish and Game and UC Davis will try to track movements of the fish by the radio signals. The goal is to try to learn how many of the rescued fish survive to spawn in the fall, Johnson said. That will suggest whether such rescue operations are worth the money they cost the state.

Christin Polen, who lives near where the fish were rescued, said he's watched salmon gather in that spot in each of the last five years.

There used to be a number of deep holes, and salmon actually survived the summer in them and spawned in that section of the creek. But then a levee reconstruction project eliminated the holes, he said, and there hasn't been enough water to sustain the fish.

This year, the salmon arrived in February, he said. Each year, their arrival has been preceded by the appearance of predators that feed on the fish, such as eagles, osprey and otters.

## 2010

### Saving salmon: Trapped fish moved to cooler Butte Creek water

By HEATHER HACKING - Staff Writer

Posted: 07/16/2010 12:00:00 AM PDT



Fish and Game employees carry a salmon in a net from the Butte Creek to a truck as trapped fish...

CHICO — Workers cast a net across Butte Creek near Estates Way Wednesday morning, corralling dozens of spring-run Chinook salmon that had come to the end of their journey due to warm water.

Divers placed the nets to enclose the fish, which were later moved via hand-held nets to a holding area within the creek. The fish were then moved to a truck, bucket-brigade style, to be transported to cooler water upstream.

The Department of Fish and Game moved 70 fish, which doesn't seem like many. However, the entire run of the endangered spring-run Chinook looks like it will only be 400 this year in Butte Creek, including the fish rescued.

Last year 35 fish that were stuck in a similar part of Butte Creek. The year before there were 26.

The fish were slippery, and not especially pleased with being jostled. Several times the men at the bottom of the embankment hollered out as a fish tried to squirm away.

This is the third year Fish and Game and National Oceanic Atmospheric Administration's Fisheries Service have rescued fish trapped by a "thermal block" in Butte Creek.

It's been an odd year, with a cool spring that might have led fish to linger on their usual February to June migration before spawning. Once they made it to the creek, the water had warmed.

Joe Johnson, a senior environmental scientist, said the creek would ideally have between 5,000 and 7,000 spring-run Chinook.

More fish than that can cause crowding and help the spread of disease, he said.

Each female fish lays between 5,000-6,000 eggs. The cause of the low numbers this year is unknown, Johnson said, and will be studied. It might be that with the different weather pattern, the fish went up Mill or Deer creeks instead, where other spring-run Chinook migrate.

There are so many factors along a fish's journey, from birth in the creek, through the Sacramento River and San Francisco Bay and out to the ocean, then back three to four years later to spawn, he said.

While many improvements, including fish screens and a fish passage at Western Canal Water District have taken place, there are still many small water diversions that do not include fish screens, Johnson explained.

While working this week, fish with any sign of disease were placed in a separate compartment of the truck, for release separately. Fish in good health were transported to just below the Parrott-Phalen Diversion Dam.

Some fish will be tagged with radio transmitters, and all will receive an orange or blue tag. Later, the fish will be surveyed to see if they were able to spawn before dying.

Before European settlement, and before massive amounts of silt from hydraulic gold mining, Butte Creek was flush with fish.

In recent years, many projects have been completed along the waterway, including fish screens on diversion of more than 250 cubic feet per second. Johnson said now Fish and Game is slowly working with water users for screen of diversions between 100-200 cfs. Federal and state funding may be available, he said.