

Mountaineer

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WATER

Nourishing lands
and people

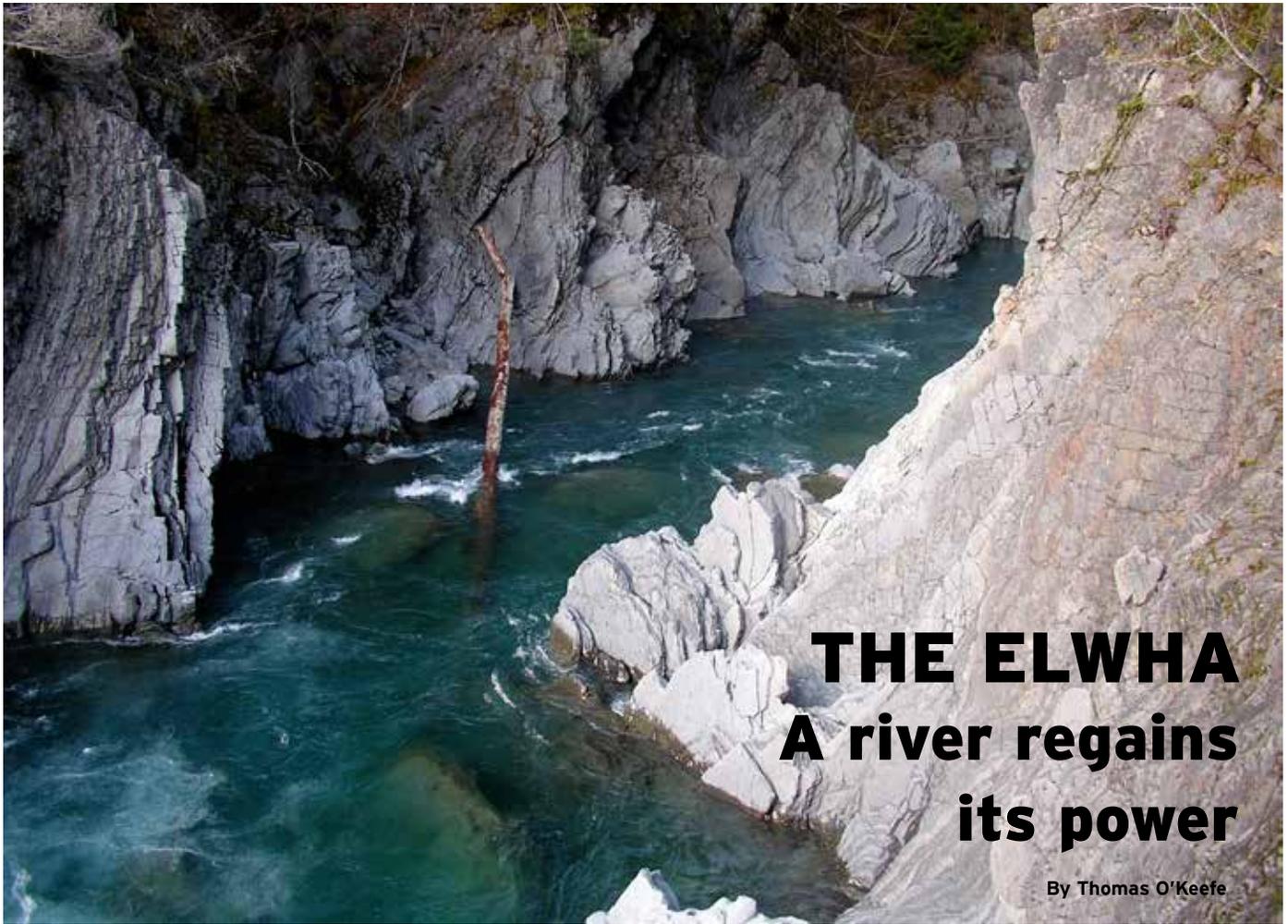
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THE ELWHA A river regains its power

By Thomas O'Keefe

Tom O'Keefe photo

The Elwha River is unique among rivers of the Olympic Peninsula with a watershed that represents approximately 20 percent of Olympic National Park and headwaters reaching to the very center of the Olympic Mountains. These mountains were formed by the domal uplift of marine sedimentary rock and basalt that the powerful Elwha River has carved its way through. The rich geologic diversity that resulted has been sculpted by the action of flowing water, the erosive power of sediment, and the persistent grinding action of the glaciers that have all shaped the landscape.

The Elwha River of recent geologic history has all the attributes of a river that is well suited for the suite of species that comprise the Pacific salmon, a classic backcountry whitewater destination with its deep canyons and diverse geology and an early candidate in our state for hydropower development with all the power and volume of a river descending from the mountains to the ocean over a distance of just 40 miles.

The Elwha Dam, one of two dams recently removed from the river, was not the first dam across the Elwha. The Vashon ice sheet dammed the river to form a glacial Lake Elwha a little over

10,000 years ago. Beneath the forest canopy the observant hiker can find evidence of glacial terraces, perched deltas and moraines that document the old lake that disappeared with the retreat of the glaciers.

As can be observed today in Alaska, where glacial retreat has exposed new river habitat, salmon discovered the Elwha and found a rich diversity of habitat. The powerful rapids and cascades of canyon sections of the Elwha exerted strong selection pressure for massive chinook salmon; pink salmon found ideal habitat in the lower gradient reaches closer to the ocean; and, sockeye had access to important rearing habitat in Lake Sutherland. This abundant fishery resource became an important food and cultural resource for the Klallam tribe of people and central to the identity of those who called the valley home.

In 1882 the world's first hydroelectric project began operation on the Fox River in Wisconsin and with it came ambitious plans to harness the power of rivers to generate electricity and fuel industrial development. Thomas Aldwell located a homestead on the

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The return of a powerful river (continued from page 21)

Elwha and slowly began accumulating the land necessary for the development of a hydropower project over a period of 20 years. Where the Klallam people had found a fishery resource that sustained their community, Thomas Aldwell looked upon the river and determined that it was “no longer a wild stream crashing down to the Strait; the Elwha was peace and power and civilization.”

As Aldwell worked to secure the financing, construction of the Elwha dam commenced in 1910. The dam was not anchored to bed-

rock but instead set on glacial alluvium—“a dam on roller skates.” Shortly after construction in October of 1912, the dam failed in spectacular fashion when the river blew out through the gravel below the dam. Rebuilding commenced and by the end of 1913 the Elwha was no longer a free-flowing river. Electricity was flowing from the powerhouse to Port Angeles and beyond.

Decommissioning the hydropower projects on the Elwha was a

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Elwha day trips: see the restoration firsthand

A new beach to explore: The river mouth is quickly transforming as the cobble beach gradually turns to sand as predicted. To explore the new beach environment, head approximately five miles west of Port Angeles to Highway 101, mile 242.5, and take Highway 112 west. Continue for 2.1 miles (crossing the river) to Place Rd. Turn right (north) and follow this road 1.9 miles to the T junction and then turn right (east) on to Elwha Dike Rd. and continue 0.1 mile to the Elwha Dike access point. Day-use parking is available along the road. Hike a couple hundred yards along the trail towards the ocean.

Elwha Canyon: To gain the best view of this canyon, where Elwha Dam once stood, head about five miles west of Port Angeles to Highway 101, mile 242.5, and take Highway 112 west 0.7 mile to the Elwha River. Just before crossing the Elwha bridge turn left (south) on Lower Dam Rd. which is also the turn for Elwha Dam RV Park. The parking area for the trail is to your immediate left. The first 200-yard section of trail is wheelchair accessible and leads to a partial overlook of the former dam site. As you approach

this first overlook you will see the start of a quarter-mile footpath to your left that leads to an overlook.

Former Aldwell Reservoir: The former reservoir is a fascinating landscape of gravel and sand held back by the dam. Old stumps with their springboard notches stand as reminders of the day the riparian forest was cleared prior to flooding. There are impressive views up the valley to the proposed Gates of the Elwha Wilderness and a river carving its way through a century of sediment. Vegetation is slowly reclaiming the corridor along the river. Head about eight miles west of Port Angeles to mile 239.4 on Highway 101. Turn right (north) onto Lake Aldwell Rd. towards Olympic Raft and Kayak. Continue on the road 0.2 mile to the end and an old boat launch that was on the reservoir. Hike onto the old reservoir and explore.

Former Mills Reservoir and Geyser Valley: While Glines Canyon Dam is still an active construction site, you can drive to it and explore the upper reaches of the former Mills Reservoir as well as the backcountry upstream. Head about eight miles west of Port Angeles to Highway 101, mile 239.5, and turn left (south) onto Olympic Hot Springs Rd. through the National Park

entrance. Continue four miles and take the left-hand turn up to Whiskey Bend. As you proceed up this road you will pass the Glines Canyon Dam site at mile 1.2, described in colorful prose by members of the 1889 Press Expedition as an area “rather unsafe for any nervous youths to travel.” Continuing to mile 4.0 there is a trail that leads down to the exit from Rica Canyon and the historic start of the Mills Reservoir (marked with a small sign that reads, “to Lake Mills”). The 0.4-mile trail is steep, but it provides exploration of the upper end of the former reservoir and the exit of Rica Canyon. The road ends another 0.4 miles past this trail at the Whiskey Bend Trailhead. From here it is a 1.2-mile hike to the junction of the Rica Canyon trail which heads 0.5 mile down to the river and the downstream end of the Geyser Valley. In contrast to the reaches downstream that are struggling to digest 34 million cubic yards of sediment, the Geyser Valley is a great place to see what a floodplain forest would normally look like and lends a potential future view of what a restored Elwha forest could look like along the lower reaches someday. ▲▲

A restored Elwha means new options for recreation

By Rob Casey

For the recreational minded, the removal of the two dams on the Elwha River is a mixed bag. The benefits and drawbacks of dam removal depend upon what your favorite recreation on the Elwha is or was.

Some recreational opportunities were lost due to dam removal, some were not affected, and new options have come from a result of the changes. Both dams created expansive reservoirs behind them and therefore provided new recreational opportunities during that time. Local kayak shops ran sea kayaking tours on the lakes and had to shift that business elsewhere since the dam removals. Both reservoirs—Mills and Aldwell—were also popular with trout fishers. Despite their loss, miles of newly exposed river have opened up, adding more options for river paddling where the dams and reservoirs once existed.

Tons of sediment—accreted by the reservoirs since the early 1900s—now flows freely downstream, bringing benefits to sea kayakers, especially after the sediment is disbursed at the river’s mouth. The flushing out of sediment and return of gravel beds should also bode well for future salmon and steelhead runs, drawing the favor of anglers. However, it has turned surfers away from a once popular, if not little-known, spot at the river’s mouth.



The author negotiates the Elwha River near its mouth

Rob Casey photo

About the author

An avid kayaker, Rob Casey is also author of two paddling guides from Mountaineers Books and a SUP instructor who teaches the new Mountaineers SUP course. He is also a director for the Professional Stand Up Paddle Association. (See his article on four summer paddle destinations to beat the heat on page 16.)

The Class 2-3 sections from below the Glines Canyon dam to Highway 101 were also popular runs for whitewater kayakers. Currently river access is closed from the former dam to the Altaire campground just below the dam—hazards being cloudy water due to sediment and considerable woody debris and logs flowing downstream that were once contained behind the dams.

The mouth of the Elwha was once known to Northwest surfers for its big, hollow waves which broke in shallow water. Kayakers often avoided it to prevent damage to their boats on the rocky bottom. In December 2012 a large block of sediment began to flow downriver, adding several hundred feet of sandy beach to the river’s mouth. Prior to this time the beach at low tide extended only 50 yards below high-tide line. Now the beach extends nearly 400 feet and consists mostly of sand and micro-wood sediment. This new material changed the surf break to a point at which traditional surfers (long and short boarders) are unsatisfied with the waves and have moved farther east, thus crowding other breaks on big swell days. One friend reportedly saw over 100 surfers in the water in late spring, which is unusual for any surf break in the Northwest.

The new sediment at the mouth has created a softer landing and the wave is more appropriate for kayakers or SUPs. Nonetheless, the river mouth is a surf break to be tackled only by advanced surfers or paddlers due to shallow water waves and strong outgoing river current, which can push unsuspecting surfers far out into the Strait of Juan de Fuca with little warning—making for a difficult paddle back to shore. This situation is similar to a surf rip in which paddlers must paddle perpendicular to the current to escape it.

The new beach will continue to change and will erode as river sediment decreases over time. But unlike the pre-removal era, the river mouth will be sandy instead of rocky for future generations. ▲▲

Business Directory gets results for Everett member



Hauling shutters to Three Fingers Lookout

A longtime Mountaineers leader and volunteer, Louie Coglas has found a new connection to his Mountaineers community and it is paying dividends for both he and his fellow Mountaineers.

A roofer by trade who started a roofing business of his own in 2010, Louie joined the Business Member category of The Mountaineers when it was created last year.

Since he joined and became listed on The Mountaineers Business Directory (on the page at left) he has seen

results—three bids and one job in the past few months.

Louie said he believes that being a business owner and a Mountaineer holds cachet with customers who are looking for

trustworthy services. “When I saw that the Business Membership was starting up, I thought it would be a good idea to join. I have gotten to know people on climbs and some have told others about my services, but I thought (a Business Membership) would be even better.”

Louie has been a roofer for 35 years and joined The Mountaineers in 1987. He has been active in climbing and sea kayaking with the organization a conservation division educational outreach volunteer in the 1990s. He would often don costumes such as ‘Willie from the Woods’ to appear at local elementary schools and teach such values as low impact in the woods and reusing materials at home.

Louie, currently serving as chair of The Mountaineers Everett Branch, has led many basic and intermediate climbing trips, was an early Stevens Lodge volunteer and continues to keep an active schedule in maintenance and repair of lookouts in the mountains.

He said he hopes to increase his involvement with the Business Member group. “I am always promoting it and I hope we can include some shows and other events that will draw even more members to our meetings.”

Watch www.mountaineers.org for details about an upcoming Business Membership event

The Elwha River returns to nature (continued from page 22)

project that took several decades. By 1927 a second dam had been constructed at Glines Canyon, which was subsequently included within the boundaries of Olympic National Park. In the mid-1980s as the Federal Energy Regulatory Commission (FERC) continued to slow-walk the license applications for the two dams, Mountaineers member Rick Rutz made the observation that FERC did not have the jurisdictional authority to license a hydropower dam in a national park. It took several years but by 1992 the audacious idea to remove the dams inched closer to reality with the passage of the Elwha River Ecosystem and Fisheries Restoration Act. All that remained was the “small matter” of securing the funding for the project; but by September 2011 the project was underway as an excavator set to work and began to break up the concrete and dismantle the dam that Thomas Aldwell had worked so hard to build. The environmental costs associated with its continued operation greatly exceeded the small amount of power it produced.

At the official ceremony to mark the beginning of the dam’s demolition, Bureau of Reclamation Commissioner Mike Conner remarked, “Dam removal is not the best option everywhere, but it is the best option here. And it’s the best option in a lot of places because the process that we are going through these days is . . . reassessing the costs and benefits of certain facilities that exist today . . . I think this is not only a historic moment here, but it’s going to lead to historic moments elsewhere across the country.”

Today the Elwha Dam is gone and the river explodes through an impressive rapid in the heart of the canyon where the dam once blocked its flow. Only 50’ of the 210’ Glines Canyon Dam remains before it is completely removed. Already salmon have been finding their way upstream of the Elwha Dam site, and the river offers ample opportunities for exploration where one can witness firsthand what it means to restore a river (see Tom O’Keefe’s sidebar on page 22). ▲▲