

## Surfing Daydream

by Gerhard Epke

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I'm always daydreaming about surfing. Riding some kind of smooth-bottomed craft as it glides across a smooth face of water is somehow good recreation. There is something special about leaning your body into a vortex of energy right below the curl, right at the edge of chaos. Recently I have been thinking about surfing in the context of my own watershed. Local surfing opportunities abound if you know where to look.

Waves occur in water when an energy drop creates what is called a hydraulic jump. The clean face of a wave is water accepting energy that pillows up behind. With increasing energy, the wave breaks and energy is released into turbulence. Sometimes the water is moving and the energy is stationary, as in a standing wave. Other times the water is stationary and the energy moves, as in an offshore swell hitting the coast. Different surfing styles have evolved to match these different kinds of waves.

We have traditional stand-up Hawaiian surfing down where all the tributaries to San Francisco Bay reach the ocean. Just past the mouth of the Golden Gate, our local estuary mouth and surfing spot is Rodeo Beach at Fort Cronkhite. By surfing standards, "Cron" is very often a challenging, unforgiving, short, and treacherous ride. Swell from all directions enters the cove and hits a steep beach of Franciscan cobbles. Like Ocean Beach in San Francisco, it is impossibly huge above two or three feet but occasionally affords beautiful days and smooth rollers.

Farther upstream in the bay, kayakers can go after standing waves in Raccoon Strait. Tidal flow and



*On its way to the ocean, the waters of our watershed are replete with waterfalls, rapids, standing waves and breakers.  
Photo of Westbrae dam. Fairfax, by Charles Kennard*

runoff from our watershed, and from the Sacramento and San Joaquin valleys, is focused between Tiburon/Belvedere and Angel Island. A strong ebb tide, combined with ocean swell and wind coming in, creates standing waves in the mid-to-west end of the strait off the end of Belvedere Island. This can also be treacherous and requires some safety precautions.

Even farther upstream in the Corte Madera Creek estuary, wind-surfers and kite surfers launch for surf without waves. There are apocryphal accounts of surfing the wake of the ferries coming out of Larkspur Landing once they get far enough out to speed up and create significant water displacement. This kind of wave moves laterally off each side of the ferry and, if you catch the smooth face, it would boost you along.

Upstream even farther, the freshwater stream has standing waves that are prone to set up with sufficient flow and a good hydraulic jump. Looking at our stream in the summer, it is hard to imagine that kind of power, but at high enough flow—say above 500 cubic feet per second—one can see waves setting up in various places as the discharge changes.

I haven't seen it, but the mouth of the concrete channel where it opens up to the earthen channel at College of Marin must have a good standing wave at some high flows. It even is configured to have a good slack-water eddy to take a break and get back in. However, within the concrete channel itself is a truly dangerous place to try to do any surfing since there is no escape but down-stream. This also happens to be the reason it is a barrier for migratory fish.

Creek surfing and whitewater boating is possible at high flows in San Anselmo Creek anywhere upstream of Ross. The rapids are primarily concrete drop structures beneath bridges like Pastori and Saunders avenues. These drop structures are also fish passage barriers that we hope to someday remove.

As we work on restoring the creek for migratory fish, consideration should also be given to aligning our goals with the recreational opportunities that can also be improved. For instance, in many other places whitewater parks have intentionally designed standing waves for surfing. In the meantime, the surfing will remain catch as catch can—or in my dream, unlimited.

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