It’s time to protect the Delta

By Jon Rosenfield and Gary Bobker Special to The Bee

California is at high risk of permanently losing key species and habitats in the West Coast’s largest estuary, the Sacramento-San Joaquin Delta and San Francisco Bay.

Some describe these grave outcomes as “ecosystem collapse,” others prefer the less descriptive term “ecosystem change.” Whatever words we choose, the decline of the Bay-Delta is part of the global loss of biological diversity described in Elizabeth Kolbert’s Pulitzer Prize winning book “The Sixth Extinction” – a tragedy that’s happening not just in coral reefs and rainforests but right in our backyard.

Jon Rosenfield

Focusing on semantics rather than biology threatens to overshadow important points:

- Several species native to the Delta could soon disappear;
- These and other permanent and negative outcomes are directly related to human activities – in particular, the diversion of more than 50 percent of the estuary’s inflow; and
- We can still protect this ecosystem and the values it provides to us, if we act decisively.

Six of the estuary’s unique populations of fish are listed as endangered and others are declining rapidly. In 2014, endangered winter-run and commercially valuable fall-run Chinook salmon were devastated by failure to provide cold water required by eggs incubating below Central Valley dams and the minimum freshwater flows that young salmon need as they migrate to the ocean. Cuts to freshwater flows also devastated species such as Delta smelt, longfin smelt and starry flounder that are at or near record low population levels. Yet the same failures to enforce minimum flow and temperature protections are being repeated this year, pushing native species ever closer to extinction.

When species that were once the estuary’s most abundant are on the verge of disappearing, everything that depends on them suffers, too – from commercial fishing communities along the California and Oregon coasts; to the tourism, recreation and seafood businesses of Northern California; to Orca whales in the Gulf of the Farallones.

“Ecosystem collapse” refers to a sudden loss of key ecological functions, processes, species or habitats. Those who apply that term to the Delta are simply using shorthand to describe consequences we should avoid. Quibbling over word choice risks shifting attention away from the frightening reality on the ground.

For example, an alternative description like “ecosystem change” is misleading. Characterizing extinctions and other major, potentially permanent, negative transformations as merely “change” is like an EMT describing the victim of a hit-and-run by saying “this patient’s health is changing” – true, but not very informative.

Let’s move past the semantics and focus on achieving outcomes that reflect our values – the same values that have repeatedly led Americans to adopt laws to protect our clean water, clean air, endangered species, vibrant fisheries, wildlands and wild rivers for the benefit of future generations.

An informed conversation about managing ecosystems must distinguish between desirable changes – such as

recovering imperiled native species, restoring productive fisheries and improving water quality – and undesirable changes. It must also recognize the difference between temporary and permanent outcomes.

Not all collapses are permanent. Just as collapsed buildings can be rebuilt, we can still undo some previous damage to the Delta by restoring more natural patterns of freshwater flow and physical habitats. But we cannot replace unique species once they are lost – some collapses are irreversible. Because non-native species benefit from radical changes to habitats and flows, biological invasions are another example of usually permanent consequences that are encouraged by the way we currently manage the Delta.

Californians can choose to protect and restore the Delta and San Francisco Bay. To accomplish this, we need to use the best available science to develop rules that protect the estuary – then we need to enforce those rules.

Although many factors play some role in degrading the estuary, California's State Water Resources Control Board, other agencies and independent scientific reviews have found that freshwater flows into, through and out of the Delta have been woefully inadequate to sustain its numerous public benefits, including fisheries.

Over the past four decades, steadily increasing diversion of water from the Delta and Central Valley rivers has led to declining fish populations, restricted commercial and recreational fisheries, and exotic species invasions. In 19 of the past 40 years, the amount of fresh water allowed to pass through the Delta during ecologically critical winter and spring months was less than what would occur naturally in even the driest years on record.

For the last six years, the water board has been engaged in the process of updating the most important regulations controlling the flow of freshwater through the Delta. If we really want to save this estuary, the water board needs to finish the job and move quickly to enforce new, more protective standards.

Instead, its current response to the drought – to allow diversion of more fresh water than even the existing, inadequate standards permit – will only make the ecosystem's problems harder to solve.

Some have proposed that Congress gut environmental safeguards, so that during this severe drought we can irrigate increasing acreages of water intensive crops like nuts and cattle fodder in the semi-arid San Joaquin Valley. But California's water problems won't disappear if smelt or salmon go extinct.

Endangered Species Act regulations protecting Delta smelt have not restricted water exports from the Delta since early in 2013. The water board estimates that so far in 2015, just 2 percent of Central Valley flows have been allocated to water quality and related protections beyond those needed for salinity control at the pumps near Tracy, which export water south.

Recent water shortages have been caused by the drought and California's antiquated water rights system; reducing environmental safeguards won't address either of those problems.

If we won't change the way we use limited freshwater supplies and stop the loss of species in our own backyard, who will listen as we ask others to change their behavior in order to prevent the extinction of tigers, gorillas, pandas and thousands of other species across the globe?

There is enough water for everyone in California and all of our biological treasures, too – but we must improve and enforce environmental protections, drought-proof our water supplies with increased water recycling and conservation, and eliminate water-wasting practices. Sacrificing one of the world's great ecosystems, along with its valuable fisheries, is unreasonable, unnecessary and demonstrates a real "collapse" of our imagination and values.

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Conversation

How much importance should society place on saving species in the Delta that may go extinct?

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