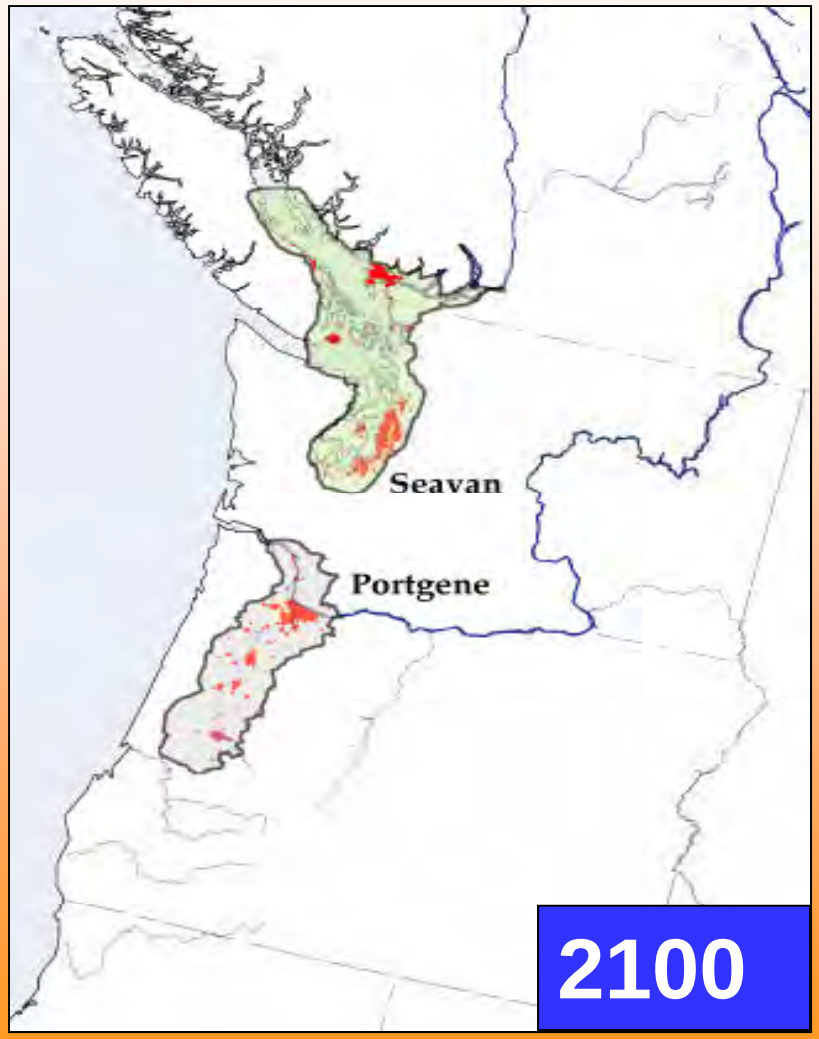
Pacific Northwest urban areas — *anticipating the landscape in 2100*



How likely are population or immigration policies to change?

How likely are population or immigration policies to change?

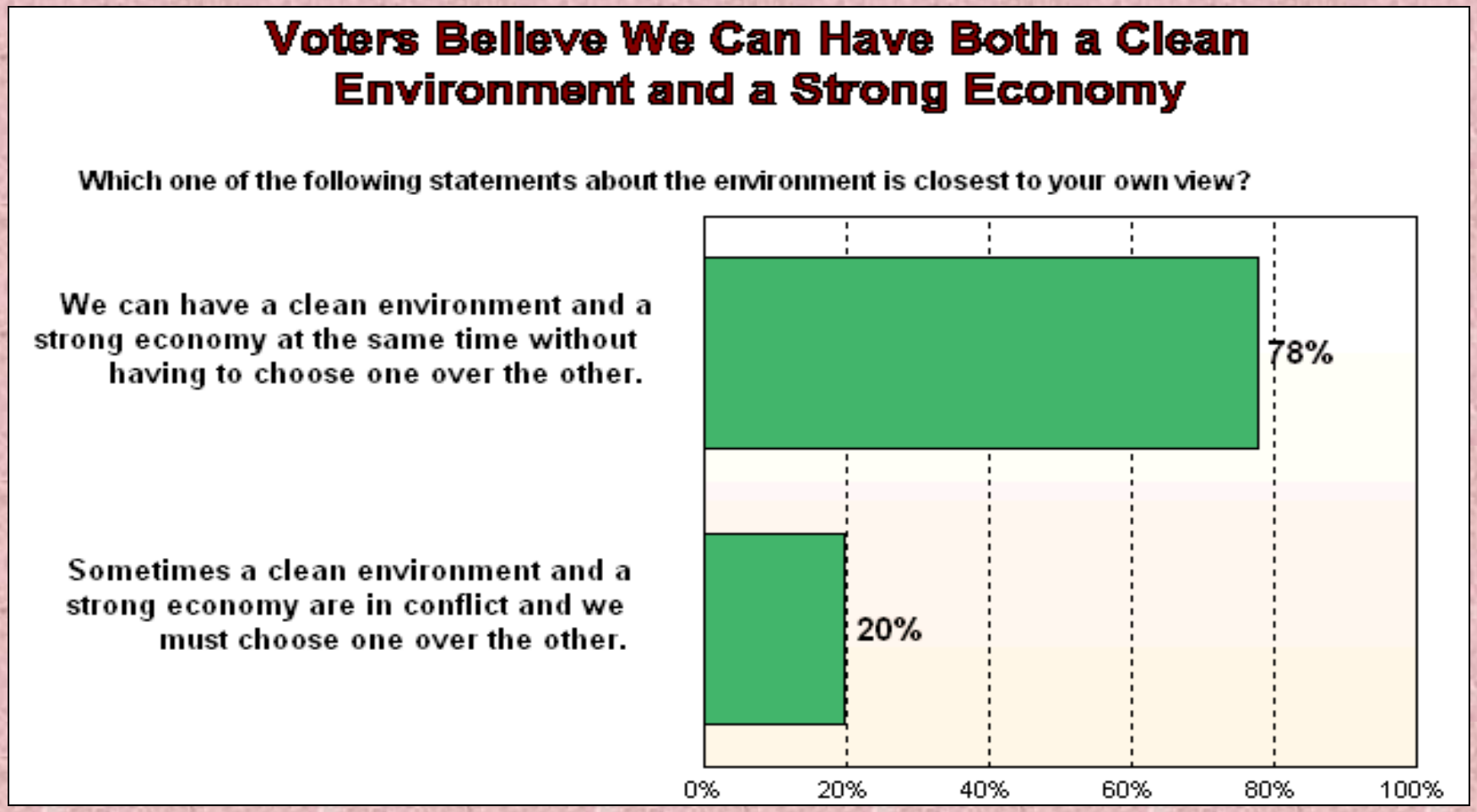
"The Sierra Club supports the decision of the Board of Directors to take no position on U.S. immigration levels and policies."

Core policy driver #4: *Individual priorities*

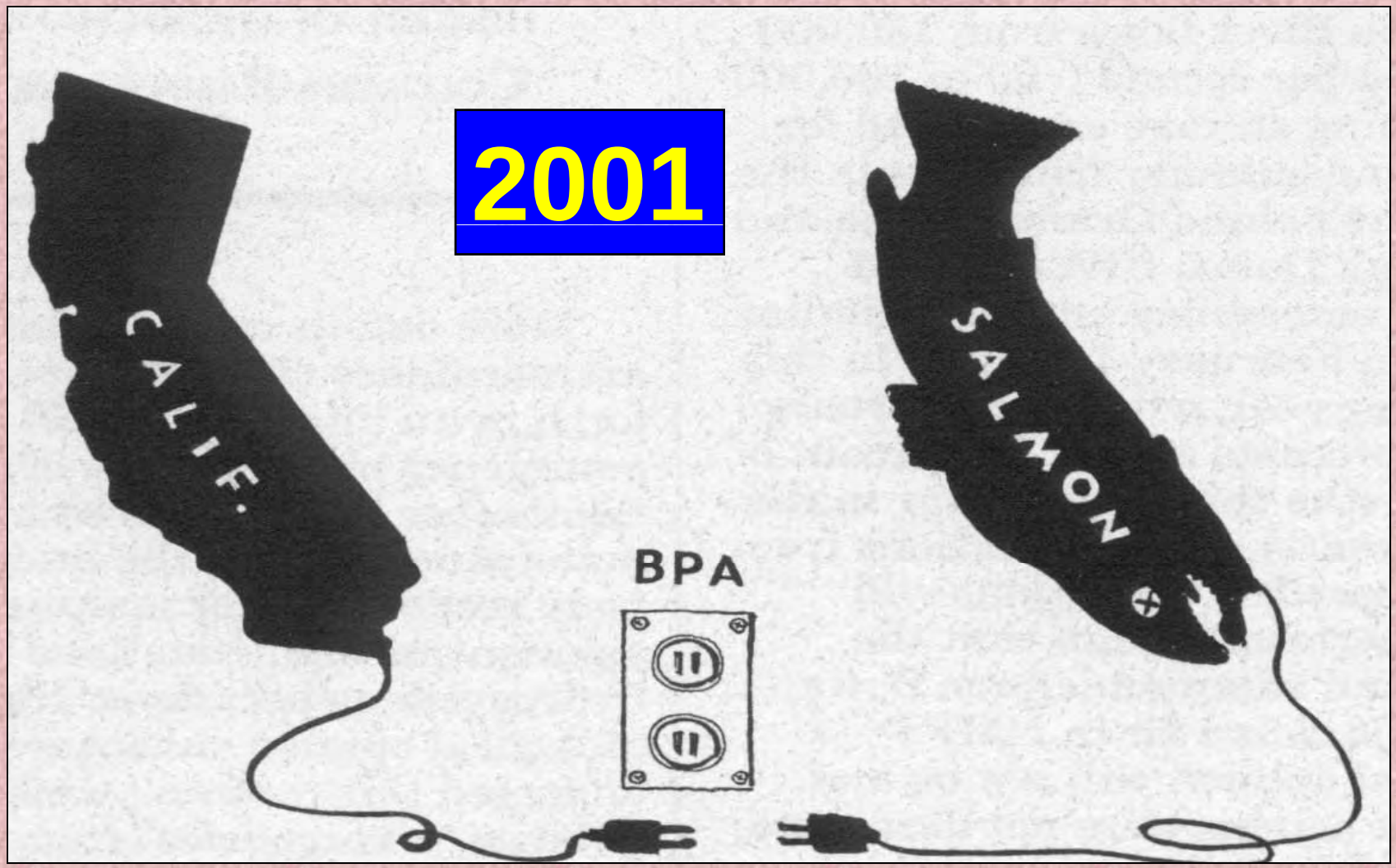
"Individual and collective preferences directly determine the future of wild salmon — and substantial and pervasive changes must take place in these preferences"

Personal and societal priorities: *are they changing or will they change?*

Best indicator — *not polls; look at people's behavior!*



Personal and societal priorities:
are they changing or will they change?



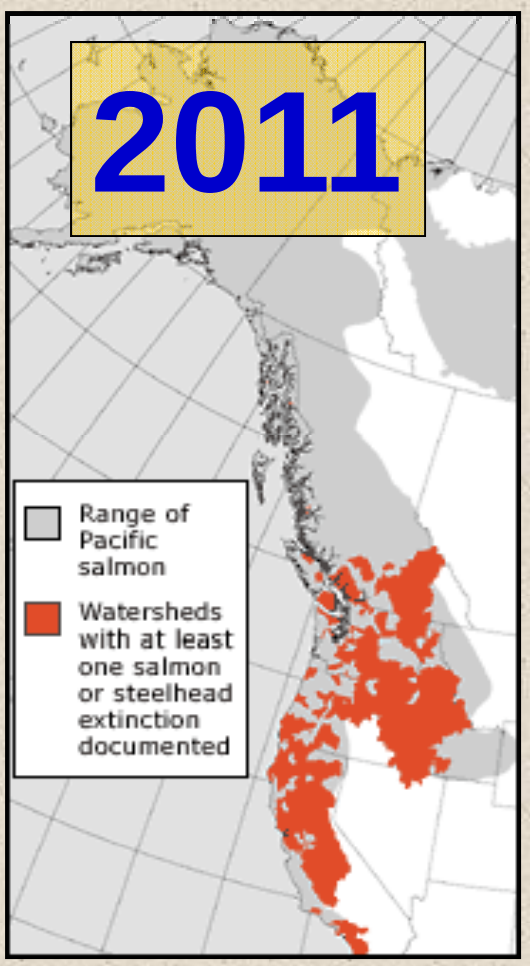
Neither good *nor* bad

vs.

2100 salmon forecast

GIVEN little change in the core policy drivers:

- ✓ **Rules of commerce**
- ✓ **Scarce natural resources**
- ✓ **Human population growth**
- ✓ **Individual/collective priorities**



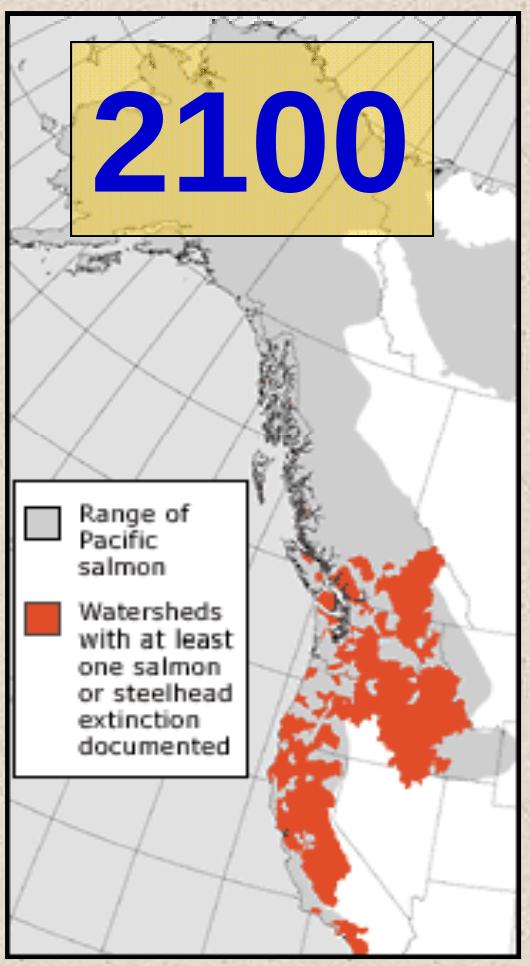
2100 salmon forecast

GIVEN little change in the core policy drivers:

- ✓ Rules of commerce
- ✓ Scarce natural resources
- ✓ Human population growth
- ✓ Individual/collective priorities

THEN the most likely forecast:

Wild salmon will be reduced to remnant runs in CA, OR, WA, ID, and southern BC by 2100



Pessimism
and
Policy Failure
Optimism
and
Policy Failure
Accuracy
and
Policy Success

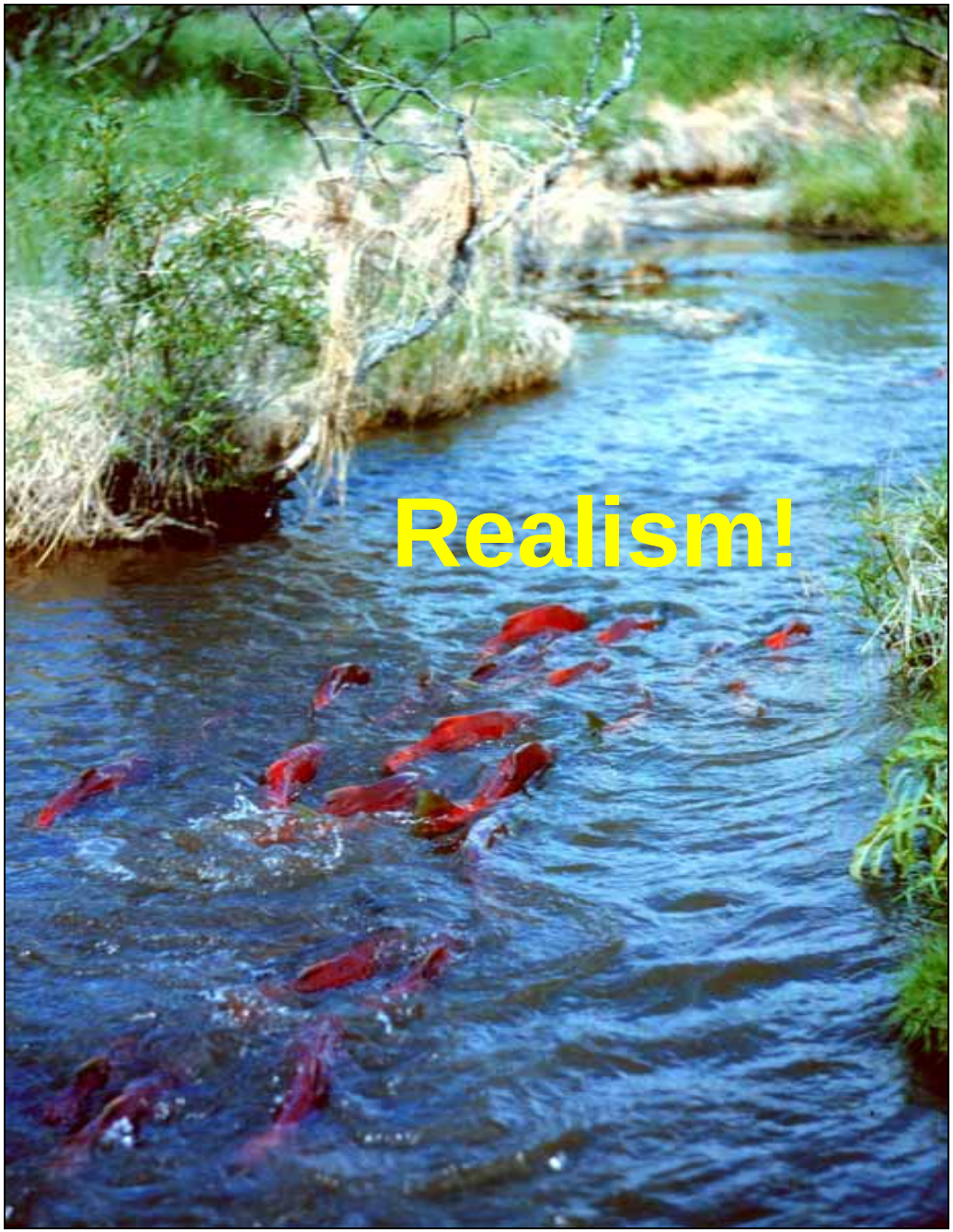
Reactions?

Topics

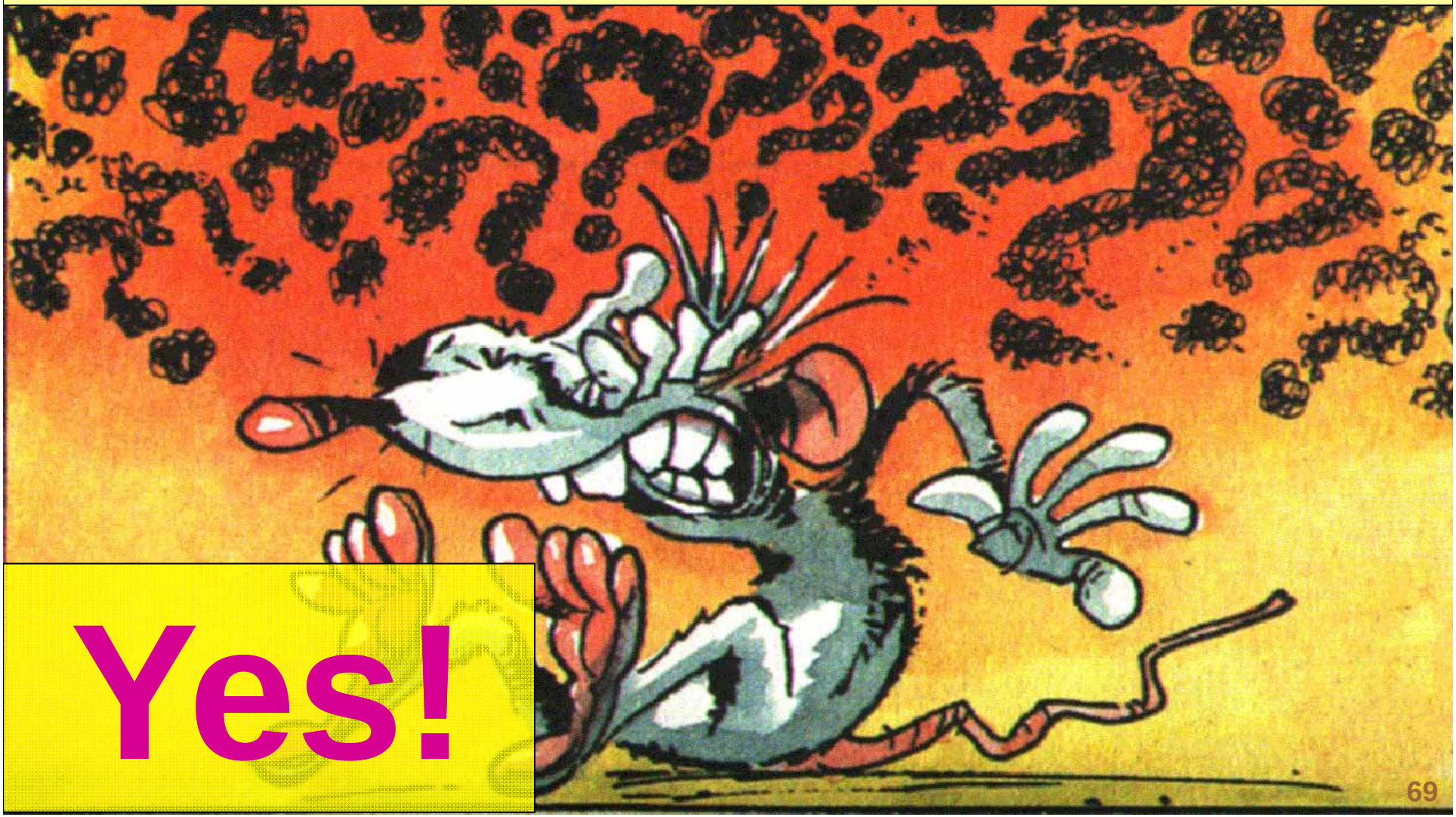
1. Brief history of the decline

2. Most likely status of PNW wild salmon in 2100

3. **Alternative policies that <u>would</u> restore wild salmon**


Realism!

Given the current reality, are there policy options (prescriptions) that would alter this "most likely" scenario?



Yes!

Salmon 2100 Project

Realistic, practical strategies that would restore salmon if implemented

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The Question:

What specific policies must be implemented in order to have a high probability of sustaining significant runs of wild salmon through 2100 in CA, OR, WA, ID, and southern BC?

Independently Developed, Peer Reviewed Policy Prescriptions (23)

First Cluster of Policy Prescriptions:

Use Technology:

Get a grip on reality and use what tools you have

What is a "wild" salmon?

Technology Prescriptions

Second Cluster of Policy Prescriptions:

Apply Triage:

Focus recovery efforts in those areas that have the best chance for success

Need to work "strategically"

Triage Prescriptions

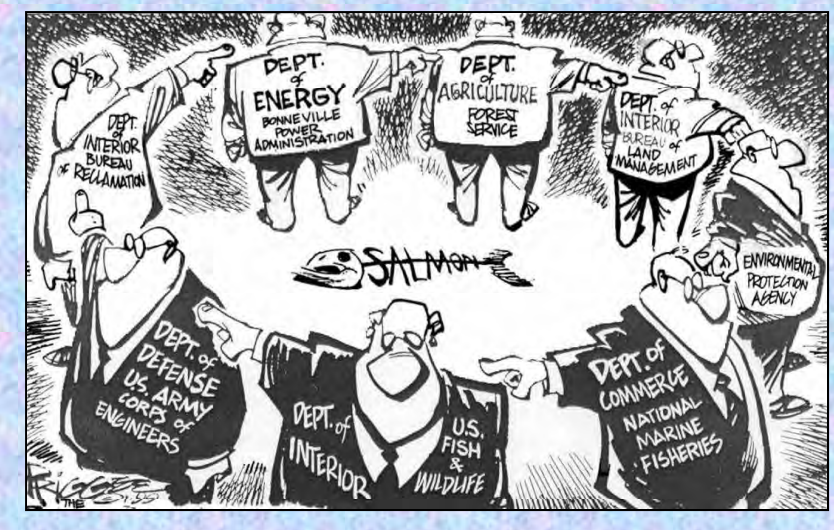
Third Cluster of Policy Prescriptions:

Overhaul bureaucracy:

There are few bureaucratic incentives to protect, restore, or enhance wild salmon runs

Avoid "symbolic politics"

Bureaucracy Prescriptions



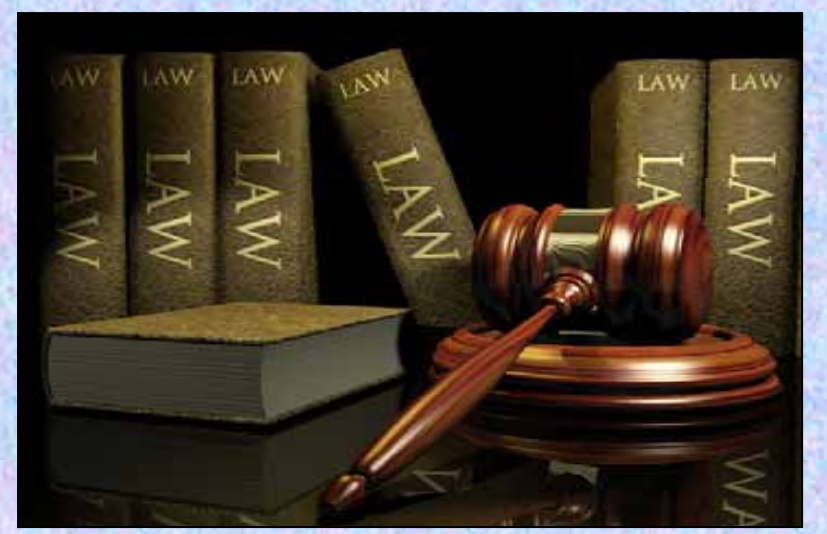
Fourth Cluster of Policy Prescriptions:

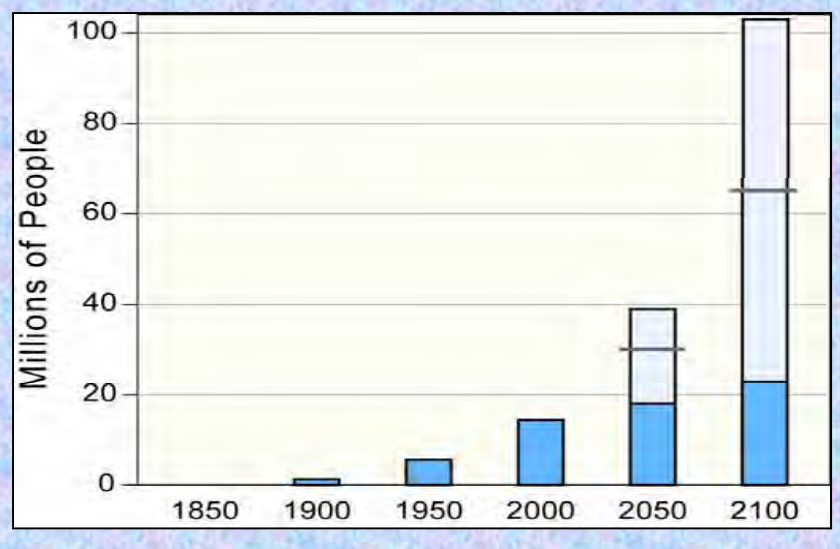
Change Behavior:

Force behavioral change through incentives or punishments

Focus on human choices

Behavioral Prescriptions

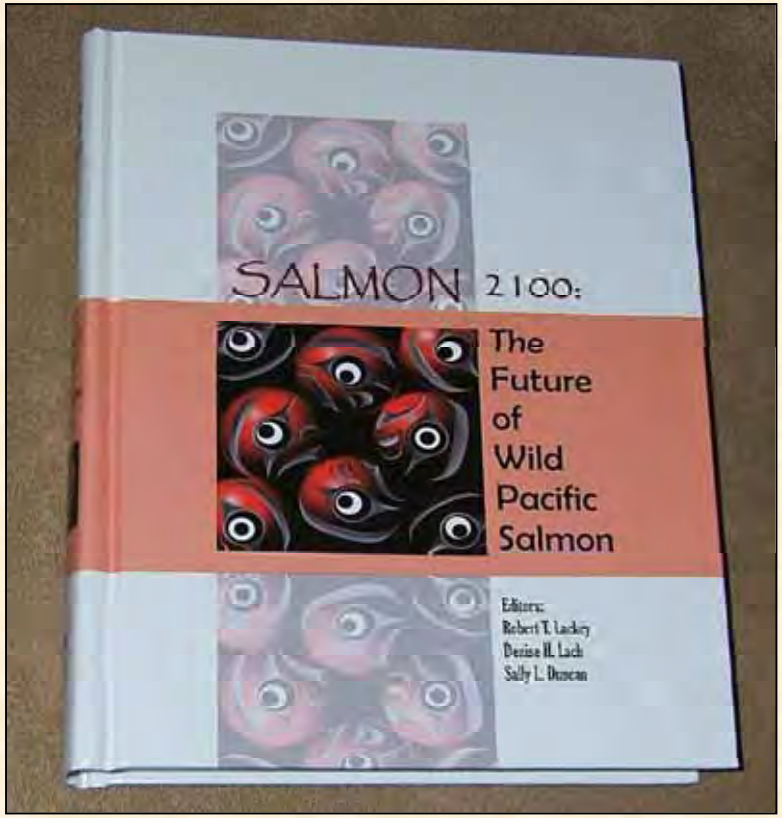




Should society adopt a policy prescription that would recover wild salmon?

Alternative futures for wild Pacific Salmon . . .

AFS Book



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Robert T. Lackey

Dr. Bob Lackey is professor of fisheries science and adjunct professor of political science at Oregon State University. In 2008 he retired from the Environmental Protection Agency's research laboratory in Corvallis where, over a 27 year career, he served in various senior science and leadership jobs. Since his very first fisheries job 47 years ago mucking out raceways in a trout hatchery, he has worked on an array of natural resource issues from various positions in government and academia. His professional assignments involved diverse aspects of natural resource management, but mostly you would find him at the interface between science and policy. He has published over 100 articles in scientific journals and authored or edited 5 books. Dr. Lackey has long been an educator, having taught at 5 North American universities. He continues to teach an on-campus and an on-line graduate course in ecological policy at Oregon State University. A U.S./Canada dual citizen, he was a Fulbright Scholar at the University of Northern British Columbia during the 1999-2000 academic year. Dr. Lackey holds a Doctor of Philosophy degree in Fisheries and Wildlife Science from Colorado State University and was selected as the 2001 Honored Alumnus by their College of Natural Resources. He is a Certified Fisheries Scientist and a Fellow in the American Institute of Fishery Research Biologists. In 2008 he was awarded the U.S. Environmental Protection Agency's highest honor — the Gold Medal — for exceptional contributions in strengthening the role of science in ecological policy.

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