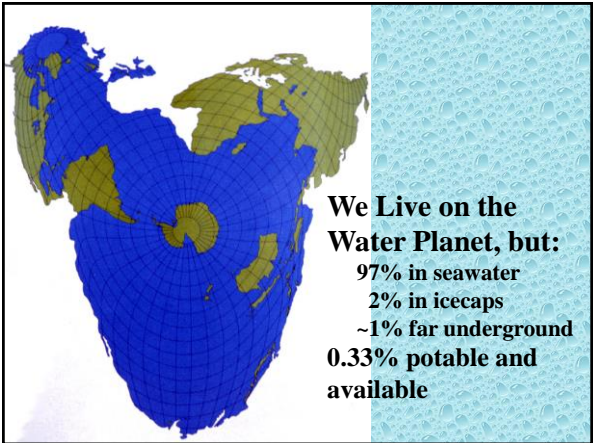
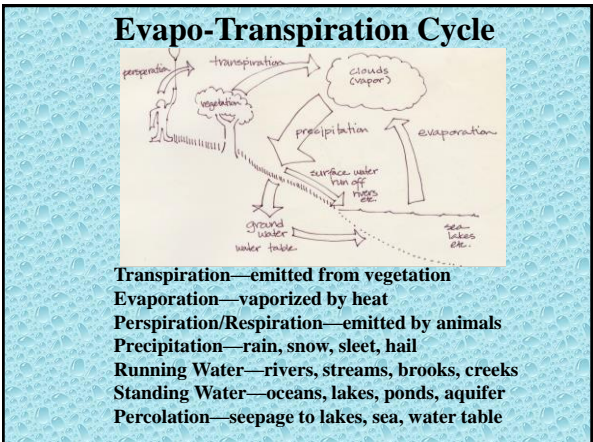




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2



3

2. We pay for water coming and going

- We don't consume most of the water that comes into our buildings.
- We contaminate it (with dirt, human waste, and heat) and then send it back out into the biosphere.
- We spend an inordinate amount of resources treating it, mostly so it doesn't make people sick.
- We cause thermal pollution, especially heat from power plants.



7

3. Water is more seasonal than energy

- Precipitation patterns vary seasonally and annually.
- Solar insolation also changes with the seasons, but more predictably.



4. Short-term storage of water isn't hard

- Storing water at the building or community scale for a week, a month, even a couple of months, isn't that hard.
- Energy storage has made great leaps, but batteries are still limited and expensive, so storing enough for more than a day or two is a real challenge.



8

5. Extravagant use of water is more deeply entrenched in culture.

- We've been using water to dilute and transport human waste for a few centuries in the west. It's hard for us to imagine not doing that.
- Energy, on the other hand, has only been cheap enough to waste for less than a century.



9



Bolivia: 6 people, 140 liters/day

India: 8 people, 220 liters/day

Jordan: 6 people, 300 liters/day

Jordan: 6 people, 200 liters/day

10



Malawi: 5 people, 120 liters/day

Myanmar: 4 people, 160 liters/day

Niger: 5 people, 60 liters/day

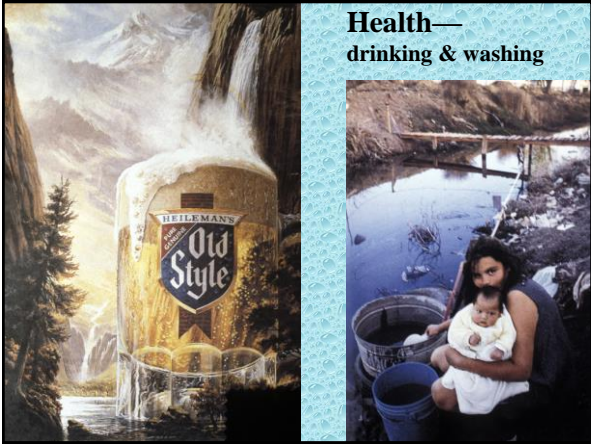
United States: 3 people, 1,000 liters/day

11

This **fluid** relationship we have to energy may be the biggest reason for the relative ease with which we explore alternative solutions. When it comes to water, we're stuck. That's why the pioneers who are helping us rethink our relationship to water are such **out-of-the-box thinkers**.

The Pipe, Santa Monica

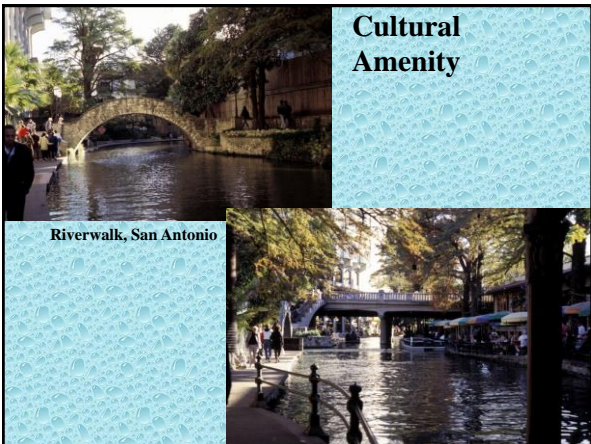
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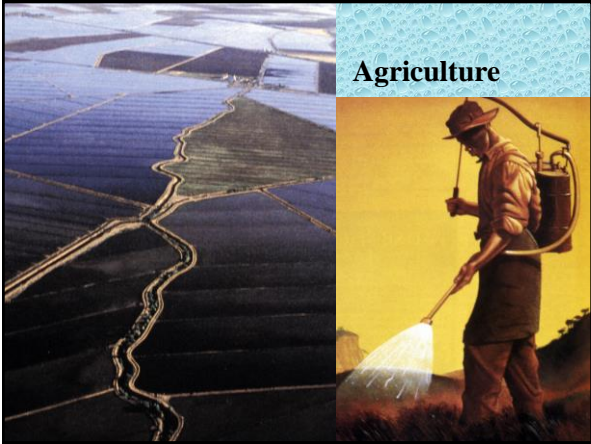
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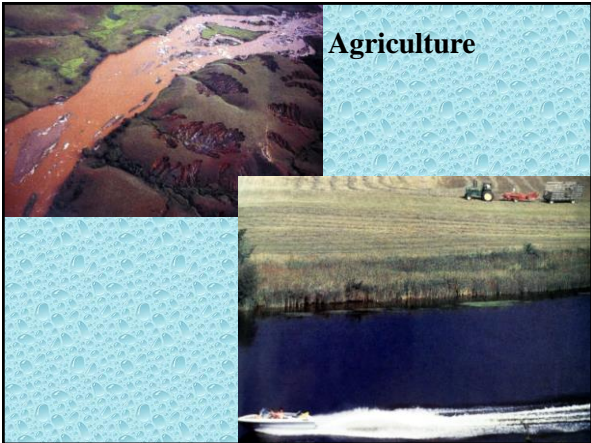
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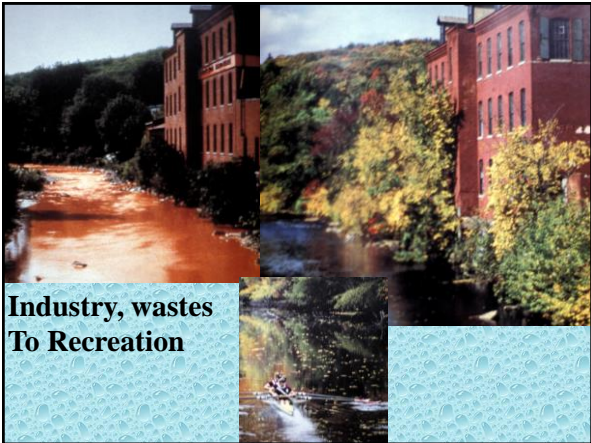
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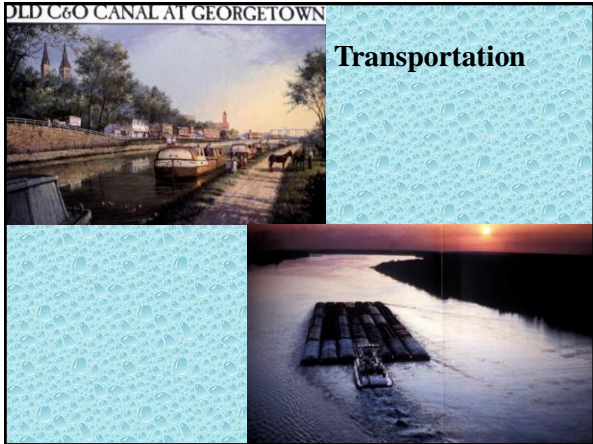
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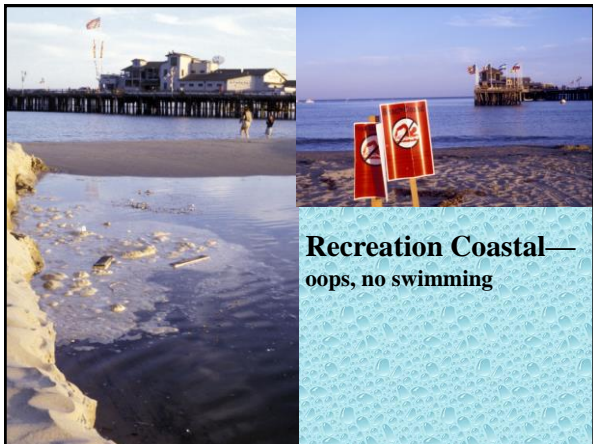
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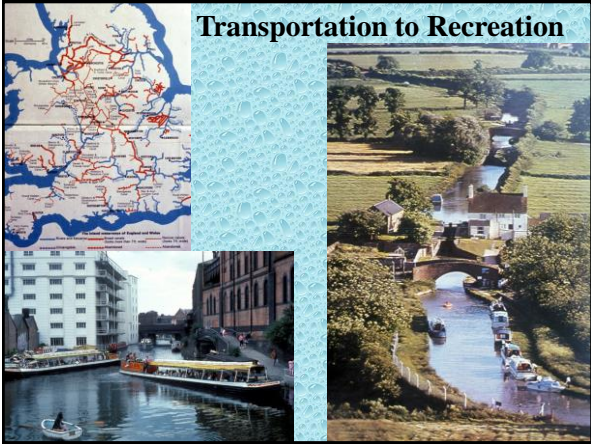
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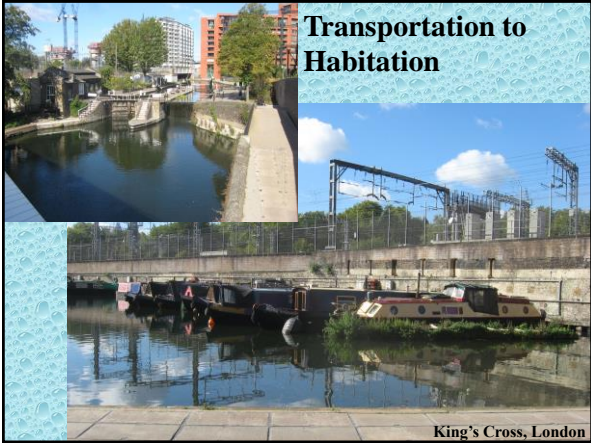
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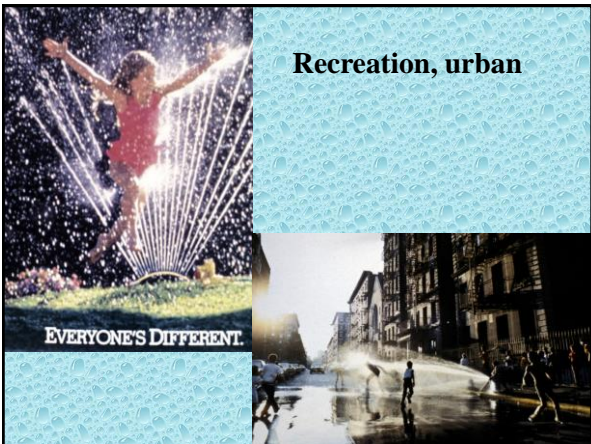
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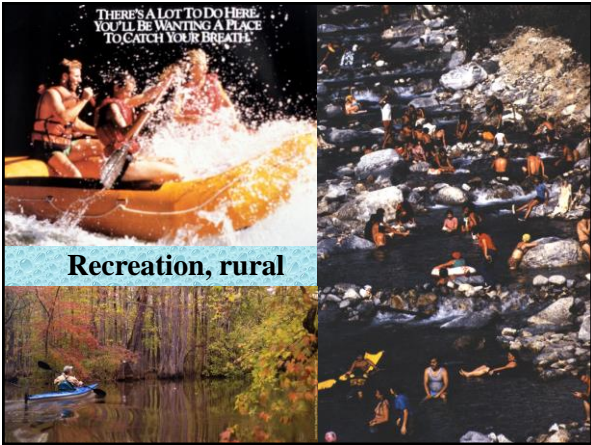
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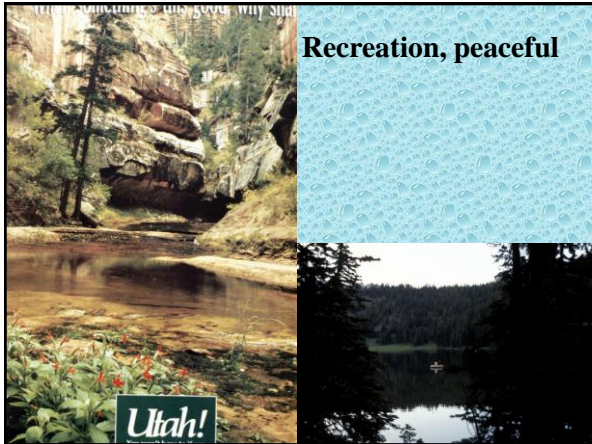
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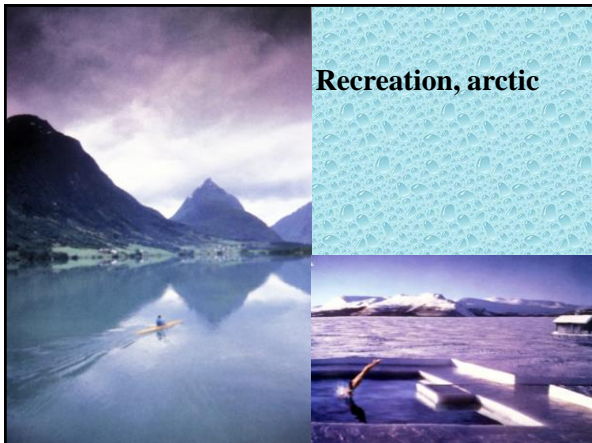


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Recreation, peaceful

31



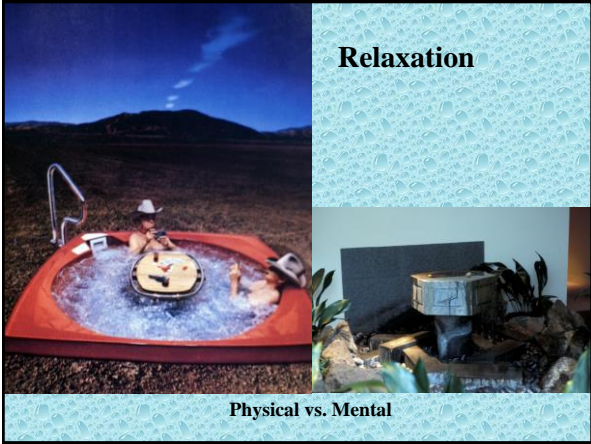
Recreation, arctic

32

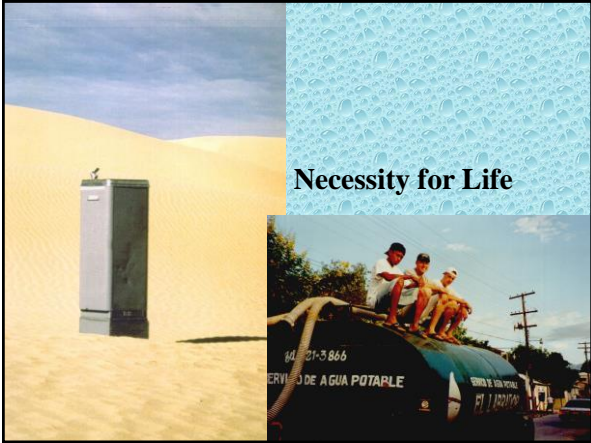


Recreation, Nordic

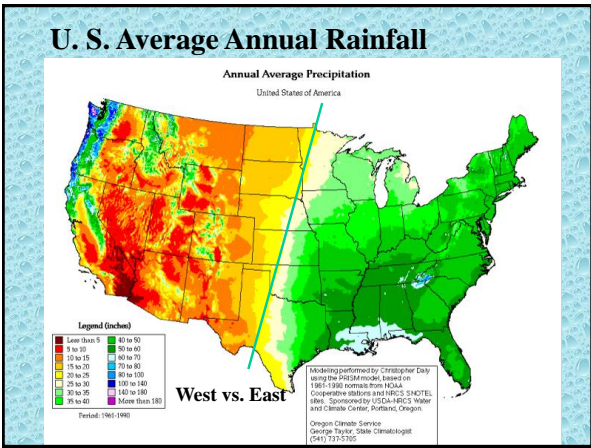
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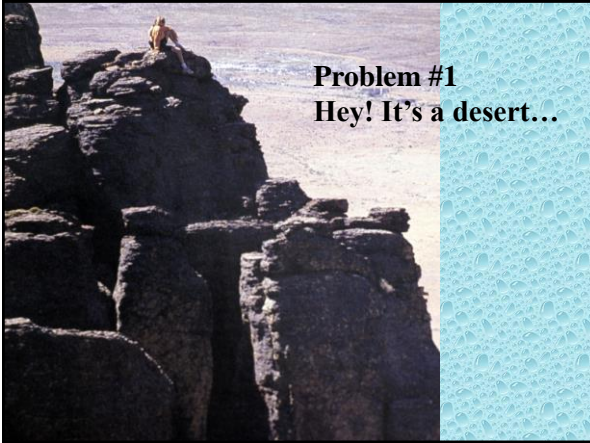
Water in the West—6 Problems

The arid West: most of the West gets less than 16 inches of annual rainfall; only darkest areas on map get more. Lightest areas get less than 8 inches



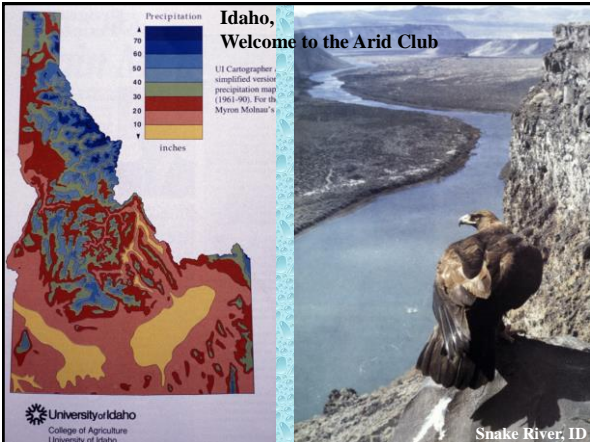
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Problem #1 Hey! It's a desert...



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Idaho, Welcome to the Arid Club



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Problem #2 Frequent draught...

U.S. Drought Monitor West
July 29, 2014

Legend:

- Lightest Yellow: D0 Abnormally Dry
- Yellow: D1 Moderate Drought
- Orange: D2 Severe Drought
- Red: D3 Extreme Drought
- Dark Red: D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

SOURCE: BRAD RUPPEY | U.S. DEPARTMENT OF AGRICULTURE

Lake Shasta

© 2014 CNBC

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Nary a Drop to Spare

Parched Earth

Is there a link to Global Warming?

Palmer Drought Severity Index

Extreme drought Near Normal Extremely wet

SOURCE: NOAA NATIONAL CLIMATIC DATA CENTER
HIG MAPS

41

Interior, Reclamation release five-year update to SECURE Water Act report

WASHINGTON, D.C.
SEPTEMBER 16, 2014

By Michael Harris
Associate Editor

Yes, but it's complicated...consider hydropower, water supply & storage, economy, security, and ecology.

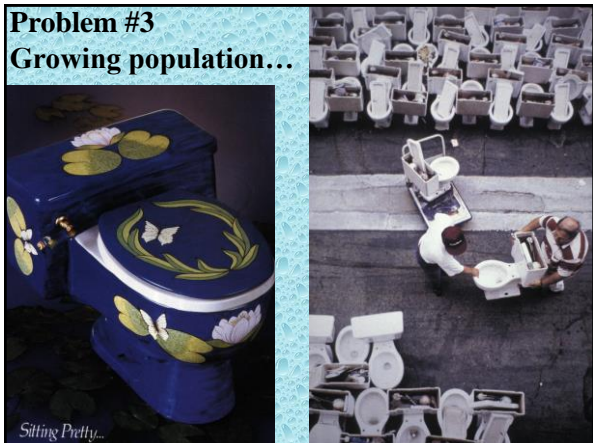
A new basin-by-basin study released by the U.S. Department of the Interior and Bureau of Reclamation highlights the impacts of climate change as it pertains to the hydroelectric cover, supply, health, economy, security and ecology of 12 western states.

Sponsored By **HydroVision**

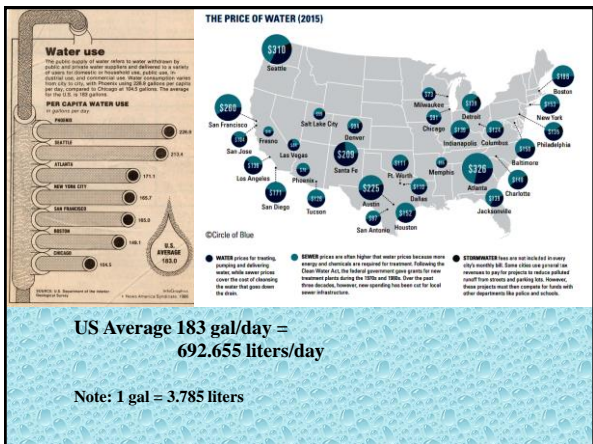
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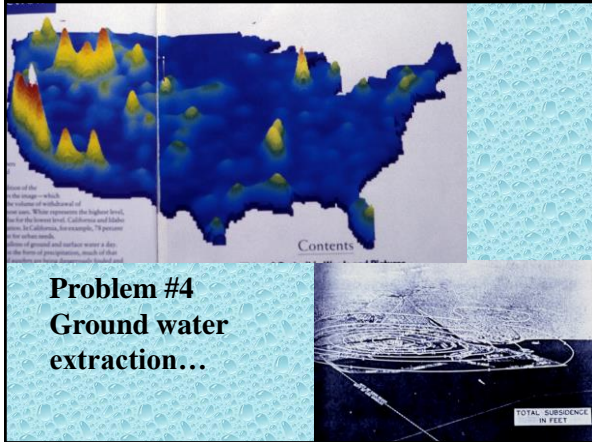
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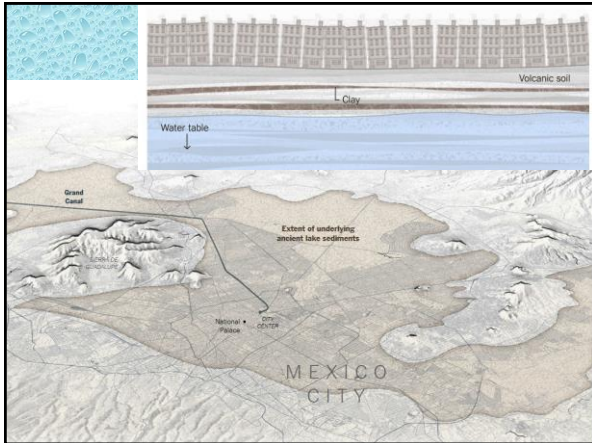
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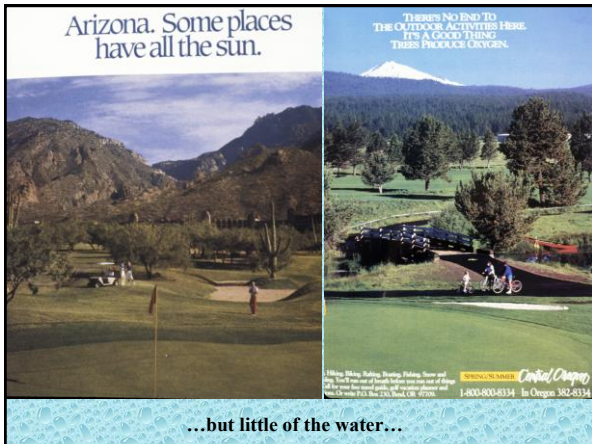
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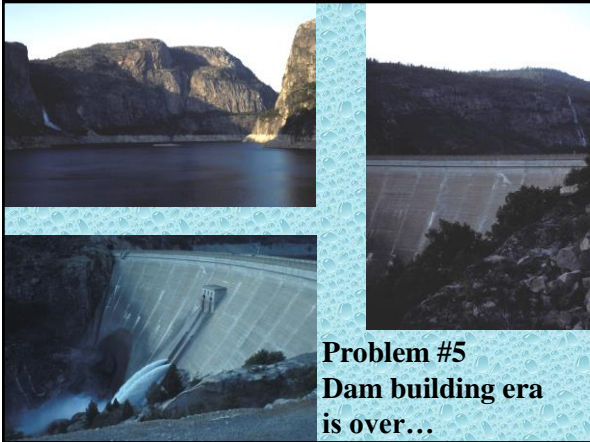
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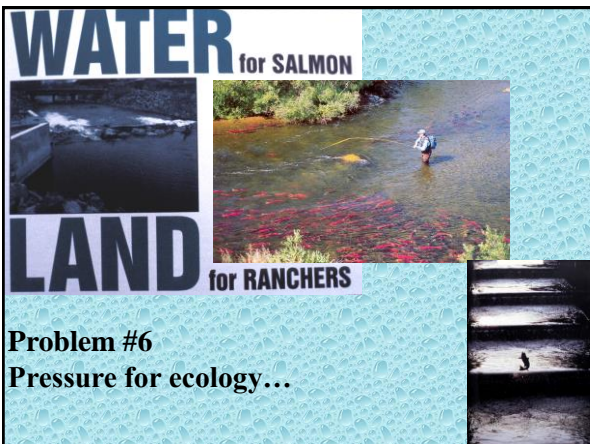
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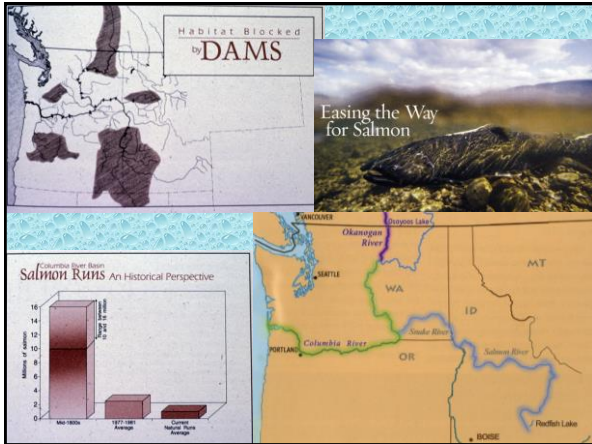
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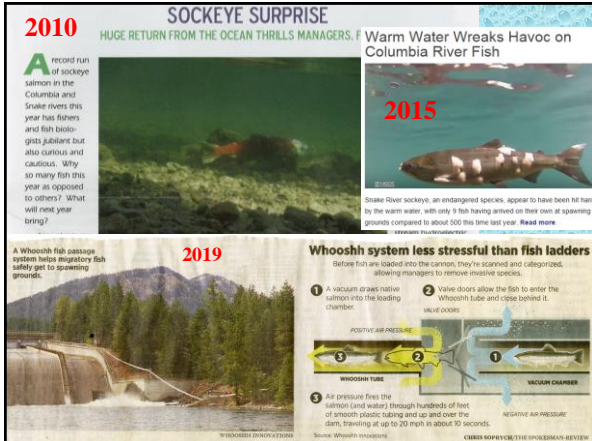
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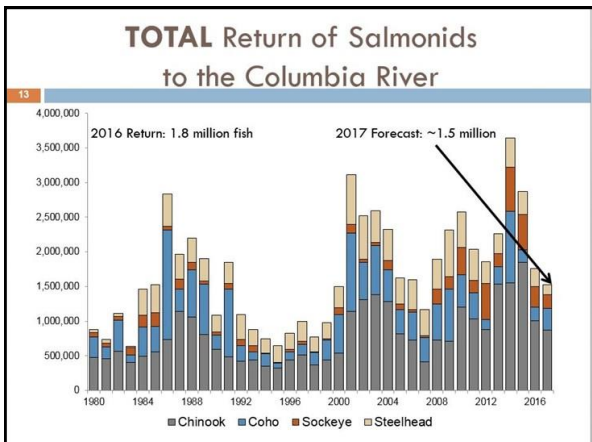
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