Idaho Envirothon Project

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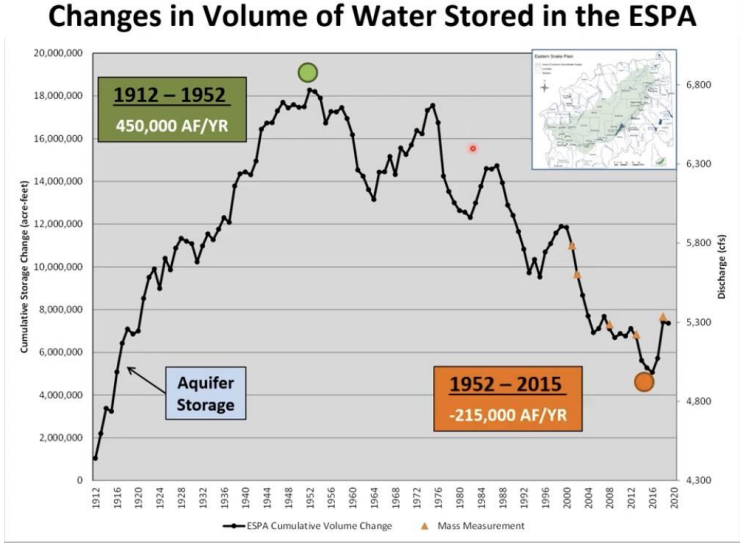
Wildlife

What is the problem? The problem that wildlife has is finding the balance between input and output. Fish and Wildlife Managers, as well as Land Managers and agricultural industries are the main departments that help to create this balance. They manage people's water rights, add food plots for animals, tend to habitats, and help conserve the natural resources at our disposal. The problem that these industries are running into is making sure everyone gets enough resources.

Impact of the problem: The problem affects many different parts of everyday life. It affects industry, agriculture, recreation, and wildlife. The effect on fish is great. Because of the water being transported to farms and dams fish must be redirected and sometimes raised. Idaho Fish and Game has a total of 19 fish hatcheries. These fish, after being raised to the proper size, are then released into Idaho's rivers to increase the ever-dwindling fish population.

The Current Issue



What is the problem? The main issue is declining aquifer storage in the ESPA. This directly correlates to the declining Thousand Springs. This is caused by drought, increased groundwater pumping and more efficient irrigation(since less water would go into the ground). Through the years 1912 to 1950, the amount of water was very high due to movement and canal building. After 1950, the amount started declining, losing over 215,000 af/yr.

What were the proposed solutions? A Comprehensive Aquifer Management Plan was developed (CAMP). It included these different solutions:

- Artificial Recharge= implementing water that would otherwise not be stored
- Demand Reduction= groundwater users reduced their use
- Groundwater-to-Surface water conversion= convert surface water to groundwater
- Cloud seeding= Adding more water to the system using rain and snowfall

The Current Issue (cont.)

What is recharge? Recharge occurs when water is implemented into the aquifer. There can be natural recharge (rain or snow), managed recharge, incidental recharge and storage and recovery recharge. The main form of recharge used was managed recharge: with canals, spill basins and injection wells. There are different components of this, including the source of water (the Snake River, American Falls Reservoir and hydro power plants), the volume of water in that source along with the quality of the water, the method of transportation for the water (wells and basins) and the impact that this recharge had.

The impact: The recharge that has been done for this aquifer has done enough to hit the goal for the past 4 years. However there are many other impacts and factors that have occurred. This includes having to monitor water quality and follow the protocols. The amount of water increase is also due to other natural factors, however there is still a direct correlation to recharge.

The current issue vs. the other topics

Aquatic: If the water budget is not enough to reach everyone then many people will be left with not enough water for their domestic and agricultural needs.

Wildlife: If there is a lack of good water it affects the habitats that the wildlife lives in. Fish need certain water parameters to survive and if the water quality is not fitting those the fish will start to die off. Animals on land will also suffer because the vegetation some of them survive on will die due to a lack of water.

Soils: Using recharge can affect soil positively or negatively. It can improve the soil quality if the groundwater is also good quality. It can negatively impact the soil if the water is polluted. If the water is polluted and the soil suffers, this can affect plant growth and nutrient cycles tremendously.

Forestry: If poor water quality causes the soil to suffer, this will have a big impact on the plant life around the aquifer. The plants will not be able to get the proper nutrients such as nitrogen and potassium. This could be a problem, especially in the ESPA with farming and crops.

Images

Slide 1: https://www.flickr.com/photos/91981596@N06/36736965995
https://www.freeworldmaps.net/united-states/idaho/map.html

Slide 2: https://www.idahostatesman.com/outdoors/fishing/article238685083.html

Slide 3: https://www.youtube.com/watch?v=4r0sTGx04RQ&feature=youtu.be

Slide 4: https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.idahostatejournal.com%2Fnews%2Flocal%2Fstate-poised-to-meet-aquifer-conservation-goal-more-than-years

Slide 6: https://visitidaho.org/things-to-do/natural-attractions/snake-river-canyon/