

PROPOSAL FOR
IDAHO IRRIGATED CONSERVATION RESERVE ENHANCEMENT PROGRAM

Prepared for Farm Services Administration and National Resource Conservation Service

By

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Two million acres of irrigated farmland across southeastern Idaho are at risk due to a water dispute involving surface, ground and spring users. If unresolved, the state of Idaho along with thousands of family farms and the communities they call home face economic devastation. The problem, exacerbated by drought and rising energy costs, could result in permanent losses to the agricultural-based economy.

EASTERN SNAKE PLAIN AQUIFER: Much of southeastern Idaho sits above a large underground aquifer called the “Eastern Snake Plain Aquifer” or “ESPA”. The aquifer extends from Ashton to King Hill, Idaho – a distance of approximately 130 miles long and 70 miles wide or 10,000 square miles. Here Idaho’s famous potatoes are raised along with sugar beets, small grains, beans, hay, and other crops. Livestock, dairy and aquaculture facilities are located in the region along with a number of food processors and provide many local jobs. All rely on an abundant supply of water from surface and ground water sources.

INCIDENTAL RECHARGE: In or around the early 1900's, over 600,000 acres of surface irrigated ground was developed across southeastern Idaho over the ESPA. Seepage or “incidental recharge” from surface irrigation raised aquifer levels to artificially high levels, as much as 50 to 60 feet by some estimates.

CHANGING TECHNOLOGY AND IRRIGATION PRACTICES: From the late 1940's or early 1950's onward, technological advances and changing irrigation practices reduced the amount of incidental recharge that found its way into the aquifer. Farmers converted from surface water to deep wells; sprinklers replaced flood irrigation; canals were lined. As irrigation practices became more efficient, less and less incidental recharge made its way into the aquifer. Today it's estimated 900,000 acre/feet of water that once made its way into the aquifer is no longer being recharged.

While incidental recharge decreased, demand for water increased. New acres were developed and water was permitted to new uses. Idaho's aquaculture industry relies on spring flows in the Thousand Springs area that measured approximately 4200 cubic feet per second (cfs) in the early 1900's, 6800 cfs in mid-1950's, and 5000 cfs by 2004.

OVERAPPROPRIATION OR EQUILIBRIUM: As aquifer and spring flow levels declined, a heated debate ensued over whether the resource was under-managed OR simply establishing a new equilibrium? The aquifer was not well understood and today there remains much to learn. What is known is that drought exacerbates the problem.

PRIOR APPROPRIATION DOCTRINE: In August 2001, as Idaho entered the early stages of what is now its fifth year of consecutive drought and water levels continued to decline, a senior water user, an aquaculture facility, made a water call against junior ground water users under the prior appropriation doctrine. Other calls followed. Idaho is a prior appropriation doctrine as are many western states. First in time, first in right allocates water in times of scarcity, but its consequences can be harsh.

Initially Idaho Department of Water Resources (IDWR) established two critical ground water management areas, Thousand Springs Ground Water Management Area and American Falls/Aberdeen Ground Water Management Area. Ground and surface irrigators negotiated mitigation plans to reduce pumping within the two GWMA between 10 and 15% on a yearly basis in lieu of curtailment.

CURTAILMENT: In 2004, as Idaho entered its fifth year of consecutive drought with all water in short supply and spring flows and aquifer levels continuing to decline, curtailment proceedings began. 1300 farmers in the Magic Valley received notices that their pumps would be shut off effective April 1, 2004. 113,000 acres would be idled with an estimated \$750 million impact to the local economy. Those farmers facing curtailment had the option of making their own water calls on more junior water rights with a domino effect potentially spreading across the entire ESPA and devastating local and regional economies.

NEGOTIATED AGREEMENT: On March 15, 2004 a compromise was struck between spring users, ground water users and the state. All water calls and other litigation was put on hold for one year to explore alternatives to curtailment. Idaho's state legislature undertook a yearlong study of the ESPA and 4 other regional aquifer systems in Idaho with the goal of implementing a statewide water management plan. With 95% of Idaho's water coming from ground water sources, maintaining healthy aquifer systems is critical to the state's continued growth and economic viability. A major concern is that the problems on the ESPA may be a forerunner of what is to come in other regions.

ENERGY CRISIS: The water call and subsequent formation of the two critical ground water management areas followed an electrical energy crisis in the Pacific Northwest during the fall and winter of 2000-2001. California's implementation of its flawed deregulation plan, on-going drought affecting the Northwest's hydropower generation and increased demand from urban growth all contributed to the crisis. Rising energy prices and competing uses are impacting agricultural production costs to the point where farmers may be driven out of business. Some of those most impacted in Idaho are highlift irrigators on the ESPA who also face curtailment.

AGRICULTURAL NEEDS CONFLICT WITH WESTERN GROWTH: Scarce water supplies and energy capacity highlight concerns throughout the West for conflict between agricultural needs and those of growing population and changing industrial base. Both the Energy Bill currently before Congress and the 2002 Farm Bill emphasize conservation. The last Farm Bill's emphasis shifted somewhat from retiring ground to

keeping working ground in production and demonstrating that agriculture can co-exist with a healthy environment. The situation on the ESPA may be a prime opportunity to demonstrate those principles.

CREP IN IDAHO: There is no one solution to the problem on the ESPA. Most stakeholders believe many different opportunities must be explored. Developing and implementing a statewide water management policy is a far-reaching endeavor and will require considerable time and resources. Meanwhile Idaho needs to protect as much of its agricultural economy as possible.

A Conservation Reserve Enhancement Program (CREP) in Idaho may be one piece of a much larger puzzle. As it is envisioned, a CREP in Idaho focusing on water and energy conservation could serve as a pilot project for similar water management programs across Idaho and the West. Several key aspects of CREP appear well suited to the ESPA.

First CREP is voluntary. Voluntary land retirement is preferable to mandatory curtailment. While retiring and converting some marginal ground to vegetative cover, most working ground would remain in production. With ground set-aside for 10 years, there's an opportunity for immediate mitigation as well as time for further aquifer study and implementing other short and long-term measures. CREP offers the flexibility to design a program consistent with western water law and the needs of rural communities whose tax base is dependent on agriculture. The measurable objectives and monitoring criteria is a good fit for the kind of monitoring and measurement necessary to account for water depletions and mitigation.

PROGRAM GOALS: The program's goal would be to reduce ground water usage and energy consumption so that aquifer levels, spring flows, and reach gains are stabilized or increased. This would be accomplished by removing some acres from production, converting other acres from ground to surface water sources, and implementing projects like dry year leasing and recharge development. It is assumed that removing ground from production would also reduce electrical demand and some of Idaho's summer peaking load.

INITIAL PROJECT: The initial project would be limited to a five county area and two critical ground water management areas where ground water depletion is most critical and curtailment imminent. The five counties are Blaine, Elmore, Gooding, Jerome, Lincoln, and Minidoka. This is the area where a reduction in ground water pumping is expected to achieve the most immediate impact to increased spring flows.

One of the two critical ground water management areas is located in Cassia and Twin Falls counties and is part of the South West Irrigation District (SWID). SWID was formed in 1986 primarily to address the effects of groundwater pumping.

The second critical ground water management area, Cinder Cone Butte Critical Ground Water Management Area, is located in Elmore County. Although this is a separate aquifer system, curtailment is imminent and poses a threat to agriculture and the

Mountain Home Air Force Base that must have sufficient water to support its present and future mission.

TARGET ENROLLMENT: Initial enrollment is targeted at approximately 20,000 acres and expanding across the ESPA for a total enrollment of 40 to 50,000 acres. In some cases, these acres would be marginal ground, pivot corners, and small fields. In areas where the electrical cost of highlift pumping is becoming prohibitive, entire farms may be placed in the program.

STATE PARTNERSHIP: The state of Idaho's contribution could include cash payments and other in-kind contributions like educational programs and technical assistance.

OTHER POTENTIAL PARTNERS: Other potential partners include ground water districts, cities and counties within the affected areas, utilities like Idaho Power and Bonneville Power Administration, and other governmental entities like Soil Conservation Commission.

INCOME: The targeted payment rate is \$100 per acre based on a federal irrigated rate of \$50 to \$75 per acre, a state contribution of \$15 to \$25, and third party payments of \$10 to \$15.

OBSTACLES: While the state of Idaho recognizes how critically important this issue is to its future economic growth and viability and is fully engaged in the process, state participation may be the primary obstacle to developing a CREP here. Two factors must be addressed: recent budget shortfalls and a constitutional limitation on long-term debt. If current tax revenue continues exceeding projections and a one-time, up-front payment along with other in-kind contributions is allowed, these obstacles will in all likelihood be addressed. **Soil eligibility and the EI of 8** appear to be an obstacle that can be overcome if some degree of flexibility is allowed. **Forfeiture of water rights:** Water set aside for mitigation purposes or land enrolled in CRP purposes is not subject to forfeiture in Idaho Code. It may be necessary to amend Idaho Code to also exempt CREP set-aside.

BENEFITS: The primary benefit of this program is preserving the agricultural economy in Idaho while protecting the aquifer. Other conservation and environmental benefits include water and energy conservation, enhanced water quantity and quality, reduced soil erosion and improved habitat for certain fish and wildlife species.

Idaho water users in conjunction with the State of Idaho, National Resource Conservation Service, Farm Services Administration, and congressional delegations would appreciate an opportunity to further explore the potential of developing a CREP in Idaho to implement a water management program that would address water and energy supplies. We offer this preliminary outline of the problem and the proposed program to begin a dialogue that would lead to the development of a more formal proposal.