

MINUTES  
**SENATE RESOURCES & ENVIRONMENT COMMITTEE**

**DATE:** Wednesday, March 17, 2021

**TIME:** 1:30 P.M.

**PLACE:** Room WW55

**MEMBERS PRESENT:** Chairman Vick, Vice Chairman Johnson, Senators Bair, Heider, Patrick, Guthrie, Burtenshaw, and Rabe

**ABSENT/ EXCUSED:** Senator Stennett

**NOTE:** The sign-in sheet, testimonies and other related materials will be retained with the minutes in the committee's office until the end of the session and will then be located on file with the minutes in the Legislative Services Library.

**CONVENED:** **Chairman Vick** called the meeting of the Senate Resources and Environment Committee (Committee) to order at 1:30 p.m.

**MINUTES APPROVAL:** **Senator Burtenshaw** moved to approve the Minutes of March 3, 2021. **Senator Patrick** seconded the motion. The motion carried by **voice vote**.

**Senator Heider** moved to approve the Minutes of March 8, 2021. **Senator Patrick** seconded the motion. The motion carried by **voice vote**.

**Senator Guthrie** moved to approve the Minutes of March 10, 2021. **Senator Heider** seconded the motion. The motion carried by **voice vote**.

**PRESENTATION:** **Idaho Power's Collaborative Cloud Seeding Program.** **Kresta Davis**, Idaho Power, gave a presentation on the company's cloud seeding program. This program increases snow accumulation that benefits agriculture, fish, wildlife habitats, aquifer recharge, and water quality. **Ms. Davis** said it also benefits recreational users such as skiers and snowmobilers, while providing increased generation at the company's hydroelectric facilities.

The program's additional benefits include the low cost of adding water to the system through cloud seeding as compared to acquiring water from other sources; and lowering the current operational costs which are shared by Idaho Power, the State of Idaho, and stakeholders. There are many uses of cloud seeding – fog suppression, health suppression, rainfall enhancement, and snowpack enhancement. **Ms. Davis** said Idaho Power is focused on snowpack enhancement.

**Ms. Davis** said the original cloud seeding program began in the Payette River watershed in 2003. The program was expanded to the Upper Snake River Basin above Milner Dam in 2008, and in 2015, it was again expanded to cover the Wood River and Boise River Basins. Researchers involved in studies by the Desert Research Institute and the National Science Foundation collected atmospheric data in the Payette River Basin to understand winter precipitation processes in mountainous terrain and the effect of cloud seeding on cloud structure and precipitation. Recent analysis further validates water supply enhancement resulting from cloud seeding, according to **Ms. Davis**.

**Ms. Davis** said based upon these analyses, Idaho Power estimates the cloud seeding programs provide approximately 600,000 acre-feet of additional water in the Payette, Boise, and Wood River Basins; as well as over 400,000 acre-feet of additional water each year in the Upper Snake River Basin. One million acre-feet of water can generate approximately 844,500 megawatt-hours, if used for hydroelectric production, which is enough to power 74,000 homes.

The principle of cloud seeding was discovered in 1946 and the use of silver iodide to enhance the formation of ice crystals in clouds was discovered just a little later, according to **Ms. Davis**. Idaho Power seeds clouds by using ice nuclei (silver iodide) in winter storms with two methods – remote ground generators located at high elevations and airplanes that burn special flares within storm clouds. Either method successfully releases silver iodide into passing storms. Minute water particles within the clouds freeze on contact with the silver iodide particles and eventually grow and fall to the ground as snow.

**Ms. Davis** said there are environmental concerns regarding cloud seeding, and there are a myriad of studies that have looked at the environmental effects. All those studies found no evidence of adverse effects to either human health or the environment. The reason for that is, it is insoluble in water and so therefore it cannot be absorbed into organisms and it also can't break apart back into its original components of silver iodide.

**DISCUSSION:** **Chairman Vick** asked if there are restrictions on who is allowed to conduct cloud seeding. **Ms. Davis** replied that at this point, there were none. **Senator Guthrie** said at one time, there were talks about lawsuits being filed because cloud seeding was taking moisture that might go on to another state. He inquired if there has been any legal interaction with this issue. **Ms. Davis** said, to her knowledge, there hasn't been, because as that storm system is moving across the air, it is constantly picking up precipitation.

**PRESENTATION:** **Idaho Water Resource Board's Cloud Seeding Program Update.** **Brian Patton**, Executive Officer, Idaho Water Resource Board (IWRB), spoke about the State's participation in the cloud seeding program that **Ms. Davis** described. IWRB first investigated cloud seeding as a way to boost winter snowpack in 2008 and 2009, the Comprehensive Aquifer Management Plan. When the Legislature approved that plan in 2009, cloud seeding was included as a strategy to boost water supply in the Snake River Basin. Idaho Power offered to partner with IWRB on a five-year pilot program in the Upper Snake, and it was successful. In 2013, the Wood River Basin was added, then the Boise River Basin in 2015.

**Mr. Patton** said **H 266** would establish cloud seeding in those basins where IWRB determines that water supplies are insufficient to meet current water uses and needs. The bill also stipulates that IWRB may establish, participate in, or authorize cloud seeding programs Statewide again in those basins. **H 266** also provides some level of liability protection for those cloud seeding programs.

**Mr. Patton** said there is significant interest in cloud seeding from other basins around the State: Bear River, Raft River, Goose Creek, Lost River, and Lemhi River. Other basins may join in, as well.

**DISCUSSION:** **Senator Heider** asked why the Twin Falls area wasn't included in the cloud seeding plans. **Mr. Patton** said IWRB didn't have the bandwidth yet to think about that area.

**Senator Guthrie** wanted to know who gets the water and how does that play into the grand scheme of water delivery. **Mr. Patton** said in dry years, the established water rights get filled first before any water goes to additional uses or spills past Milner.

**Chairman Vick** asked if anything besides silver iodide was ever used in cloud seeding. **Mr. Patton** replied not to his knowledge. **Chairman Vick** inquired as to the return on the investment of cloud seeding. **Ms. Davis** said cloud seeding is by far the most inexpensive resource that Idaho Power has.

**H 266**

**Relating to Water.** **Paul Arrington**, on behalf of the Idaho Water Users Association, said **H 266** states findings relating to cloud seeding in Idaho, defines cloud seeding, and provides that IWRB is responsible to authorize cloud seeding in Idaho and may participate in cloud seeding programs. The legislation further states that water generated through cloud seeding will be administered in accordance with the prior appropriation doctrine and limits liability for participation in certain cloud seeding projects.

**Representative Marc Gibbs**, author of the bill, said the single most important part of **H 266** is that the bill requires water derived from cloud seeding to be handled just like natural precipitation.

**TESTIMONY:**

Testifying in opposition to **H 266** and representing themselves were Del Chapel, Steven Keyser, Monica McKinley, Duane McMurdie, Rosa Martinez, and Eva Selleck.

Testifying in support of **H 266** were Lynn Tominaga of Idaho Groundwater Appropriators, and Braden Jensen of Idaho Farm Bureau Federation.

**MOTION:**

**Senator Burtenshaw** moved to send **H 266** to the floor with a **do pass** recommendation. **Senator Bair** seconded the motion.

**DISCUSSION:**

**Chairman Vick** asked if there are air quality standards and who regulates them. **Mr. Patton** replied there are currently no regulations for cloud seeding in the State of Idaho. However, a cloud seeding operator must be registered with the Idaho Department of Agriculture and a report must be submitted to the director of the Idaho Department of Water Resources every year on cloud seeding operations. **Mr. Patton** said **H 266** attempts to bring all the cloud seeding operations under the umbrella of IWRB. In order to achieve those liability protections, IWRB has to either approve, participate, or authorize that program.

**VOICE VOTE:**

The motion carried by **voice vote**.

**H 307**

**Relating to Irrigation.** **Mr. Arrington** said **H 307** is the same as **S 1074**, which was heard earlier and passed by the Senate, with the exception of additional language regarding ditch easements (page 1, line 21).

**MOTION:**

**Senator Guthrie** moved to send **H 307** to the floor with a **do pass** recommendation. **Senator Patrick** seconded the motion. The motion carried by **voice vote**.

**PAGE  
ACKNOWLEDGE-  
MENT:**

**Chairman Vick** said the next order of business is not on the agenda, as he wanted to surprise the page, Charlotte Brockman. **Chairman Vick** presented Ms. Brockman with a letter of recommendation, signed by all Committee members; an Idaho ceramic mug; and a "Boise" teddy bear to remind her of the time spent in Boise and serving the people of Idaho. He then asked Ms. Brockman to tell the Committee what she had learned and what she liked about being a page. **Ms. Brockman** said she enjoyed seeing the Senators working together and being light hearted. She said coming to the Capitol in the middle of the Legislative Session was a bit intimidating, but the Committee members made her feel comfortable quickly. When asked about her plans for the future, **Ms. Brockman** indicated she is already enrolled at the University of Nebraska and hopes to major in International Agriculture, specifically crop production and food systems trade.

**ADJOURNED:**

There being no further business at this time, **Chairman Vick** adjourned the meeting at 2:50 p.m.

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Senator Vick  
Chair

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Juanita Budell  
Secretary