AGENDA
IDAHO WATER RESOURCE BOARD
Cloud Seeding Committee Meeting No. 3-22
Thursday, May 5, 2022
1:00 p.m. (MT)

Water Center
Conference Rooms 602 C&D / Online Zoom Meeting
322 E. Front St.
BOISE

Board Members & the Public may participate via Zoom
Click here to join our Zoom Meeting
Dial in Option: 1(253) 215-8782
Meeting ID: 834 5569 3497 Passcode: 626688

1. Introductions and Attendance
2. Cloud Seeding Program Authorization*
3. Bear River Basin Cloud Seeding Update*
4. FY23 Budget Overview*
5. Other Items
6. Adjourn

Committee Members: Chair Roger Chase, Jeff Raybould, Pete Van Der Meulen, and Al Barker.

* Action Item: A vote regarding this item may be made this meeting. Identifying an item as an action item on the agenda does not require a vote to be taken on the item.

Americans with Disabilities
The meeting will be held telephonically. If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email jennifer.strange@idwr.idaho.gov or by phone at (208) 287-4800.
Memorandum

To: Idaho Water Resource Board
From: Kala Golden
Date: May 5, 2022
Re: Authorization of Cloud Seeding Programs Operating in Idaho, Bear River Basin Update

REQUESTED ACTION: Consider a resolution to adopt criteria for authorization of local or statewide cloud seeding programs operating in Idaho.

Authorization of Cloud Seeding Programs
Cloud seeding activities have occurred in the State of Idaho for several decades. House Bill (HB) 266, passed by the 2021 Idaho Legislature, defines cloud seeding and acknowledges the Cloud Seeding Program (Program) developed by the Idaho Water Resource Board (Board) in cooperation with interested stakeholders is an innovative method of augmenting and sustaining water resources in the state. The legislation further recognizes that expansion of cloud seeding operations may benefit basins throughout the state that experience depleted or insufficient water supplies.

HB266 requires the Board to authorize local or statewide cloud seeding programs that operate within the state. Based on direction from the Board, a draft resolution with proposed criteria for the authorization of cloud seeding programs was developed.

Bear River Basin Update
A presentation will be given at the Board’s upcoming Cloud Seeding Committee meeting with an update on cloud seeding in the Bear River Basin.

Attachments
1. House Bill 266
2. Draft Resolution to approve criteria
3. Draft criteria for the authorization cloud seeding programs
LEGISLATURE OF THE STATE OF IDAHO
Sixty-sixth Legislature First Regular Session - 2021

IN THE HOUSE OF REPRESENTATIVES

HOUSE BILL NO. 266

BY RESOURCES AND CONSERVATION COMMITTEE

AN ACT
RELATING TO WATER; AMENDING TITLE 42, IDAHO CODE, BY THE ADDITION OF A NEW
CHAPTER 43, TITLE 42, IDAHO CODE, TO PROVIDE FOR CLOUD SEEDING, TO PROVIDE LEGISLATIVE FINDINGS, TO DEFINE A TERM AND TO PROVIDE EXCEPTIONS, TO PROVIDE FOR PROGRAMS AND CONTRACTING, TO PROVIDE FOR THE USE OF STATE FUNDS, TO PROVIDE FOR DISTRIBUTION OF WATER GENERATED THROUGH CLOUD SEEDING, TO PROHIBIT CERTAIN CLAIMS OF LIABILITY, AND TO PROVIDE THAT CERTAIN PERMITS SHALL NOT BE REQUIRED.

Be It Enacted by the Legislature of the State of Idaho:

SECTION 1. That Title 42, Idaho Code, be, and the same is hereby amended by the addition thereto of a NEW CHAPTER, to be known and designated as Chapter 43, Title 42, Idaho Code, and to read as follows:

CHAPTER 43
CLOUD SEEDING

42-4301. CLOUD SEEDING. (1) The legislature finds that:
(a) Idaho's economy and the welfare of its citizens depend upon a reliable and sustainable water supply. It is essential, therefore, that the state continues to identify, develop, and implement projects that augment and sustain the state's water resources.
(b) The cloud seeding program developed and implemented by the Idaho water resource board, in cooperation with interested stakeholders, presents a unique and innovative opportunity to augment and sustain the water resources of the state.
(c) Augmenting water supplies through cloud seeding is in the public interest. Public benefits of cloud seeding include drought mitigation, protection of water rights, protection of municipal and business activities dependent on water, water quality, recreation, and fish and wildlife.
(d) Data accumulated and analysis undertaken since the initiation of the cloud seeding program demonstrates that cloud seeding has resulted in an annual increase in the water supplies in the basins in which cloud seeding has been performed. However, additional research and analysis is necessary to determine the precise nature and extent of those increases. The legislature recommends that such research be continued as the cloud seeding program progresses and that annual reports on such research be provided to the legislature.
(e) The legislature recognizes that expansion of the cloud seeding program may benefit basins throughout the state that experience depleted or insufficient water supplies, and the legislature recommends that the water resource board complete an assessment of basins and work with
affected stakeholders to implement the cloud seeding program in basins that would benefit from the program.

(2) As used in this chapter, "cloud seeding" means all acts undertaken to artificially distribute or create nuclei in cloud masses for the purposes of inducing precipitation, cloud forms, or other meteorological parameters. Cloud seeding for the suppression of fog and frost prevention measures for the protection of orchards and crops are excluded from the coverage of this chapter.

(3) The water resource board shall authorize, and may sponsor or develop, local or statewide cloud seeding programs and may contract any individual or organization for consultation and assistance in developing cloud seeding programs or in furthering research related to cloud seeding.

(4) State funds may be used or expended on cloud seeding programs only in basins where the water resource board finds that existing water supplies are not sufficient to support existing water rights, water quality, recreation, or fish and wildlife uses dependent on those water supplies. Water generated through cloud seeding shall be distributed in accordance with the prior appropriation doctrine.

(5) The act of cloud seeding pursuant to a project funded in whole or in part by the state of Idaho or authorized by the state water resource board shall not be the basis of any claim of liability, including but not limited to trespass or public or private nuisance, and shall not require any state or local permits.
WHEREAS, House Bill 266 (HB 266), passed and approved by the 2021 legislature, recognized that cloud seeding has provided a unique and innovative opportunity to support sustainable water supplies for the State of Idaho, and designated the Idaho Water Resource Board (IWRB) as the agency responsible for authorization of cloud seeding programs within the State; and

WHEREAS, HB 266 defines “cloud seeding” as all acts undertaken to artificially distribute or create nuclei in cloud masses for the purposes of inducing precipitation, cloud forms, or other meteorological parameters.

WHEREAS, HB 266 further requires the IWRB authorize local or statewide cloud seeding programs within the State of Idaho, excluding cloud seeding for the suppression of fog and frost prevention measures; and

WHEREAS, cloud seeding activities have occurred in the State of Idaho for several decades; and

WHEREAS, to comply with HB 266, the IWRB approved a temporary one-year authorization of existing cloud seeding programs for the 2021-2022 cloud seeding season; and

WHEREAS, recent scientific findings have validated the efficacy of cloud seeding, and cloud seeding operational practices continue to improve due to technological and analytical developments; and

WHEREAS, the 2021 Idaho Legislature acknowledged additional research and analysis are necessary to determine the extent of water supply increases due to cloud seeding and the IWRB recognizes the need for cloud seeding programs to be implemented using current and developing industry operational and reporting standards; and

WHEREAS, the IWRB defined general program authorization criteria to ensure cloud seeding programs operating within the state of Idaho meet basic industry standards; and

BE IT FURTHER RESOLVED that the IWRB hereby approves the attached criteria for the authorization of cloud seeding programs operating within the State of Idaho but recognizes these criteria may be updated based on new information or industry standards.

BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designated representative to authorize cloud seeding programs within the state of Idaho based on the established criteria.

BE IT FURTHER RESOLVED that, the authorization of a cloud seeding program will remain in effect unless revoked by the IWRB for noncompliance with the approved authorization criteria.
DATED this 20th day of May, 2022.

____________________________________
Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST ___________________________________

Jo Ann Cole-Hansen, Secretary
I. **Request for Authorization & Program Criteria**
   a. Either a program’s sponsor or its operator may submit a request for authorization to the Idaho Water Resource Board (IWRB), or its designated representative, in written or electronic format.
   b. A program sponsored in whole or in part by the IWRB shall receive authorization by award of sponsorship or by participation in the program’s funding, from the IWRB.
   c. A request for authorization shall include a summary of the proposed program operations, including, at a minimum, the following information:
      1. Name and contact information of program sponsor(s), and operator
      2. The geographic area(s) of operation
         1. Target watershed(s)
         2. Map of program infrastructure, including general flight path(s) and/or approximate location of ground equipment.
      3. Seeding agent(s) proposed (AgI, liquid propane, dry ice, other)
      4. Method(s) of seeding
         1. Quantity and type of [each] ground generator, including rate of output for the disbursed material
         2. Quantity and type of [each] aircraft
            a. Quantity, type, and amount of primary seeding agent for [each] pyrotechnic used
            b. Description including quantity, type, and amount of primary seeding agent or rate of dispersion, for any other type of airborne seeding proposed
         3. Description and quantity of any other seeding devices proposed
      v. Planned season of operations
      vi. Number of meteorologists that will support the operation of the project or program, with brief summary of qualifications.
      vii. Proposed criteria for the suspension of operations to prevent flooding, mitigate for avalanche risk, or any other risk that may be applicable to the area of operations.

II. **Terms of Authorization**
   a. An authorized cloud seeding project or program shall meet the following criteria:
      i. Maintain accurate records of all seeding operations, including periods of operation, location(s) of operation, number of seeding hours by device, and description of any periods of suspension.
      ii. Follow all current and future regulations (local, state, federal) that may be applicable to the operation of the program.
iii. Update the project or program’s operational suspension criteria every 5 years in accordance with existing conditions and industry standard practice.

iv. Submit an annual report on operations, or copies of NOAA Form 17-4 & 17-4A, to the IWRB by August 1. The annual report should include, at a minimum:

1. Period(s) of seeding operation
2. Location(s) of seeding operation
3. Number of seeding hours by device
4. Description of any periods of suspension
5. Copies of all required state or federal reporting documents

v. Inform the IWRB, or its designated representative, through written or electronic communication of any changes to the general area(s) of operation, proposed period of operation, type of seeding device(s) used, or type of seeding agent(s) used in the operation of the program.