

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF STATEWIDE WATER
SUSTAINABILITY AND AQUIFER STABILIZATION,
AND THE SECONDARY AQUIFER STABILIZATION,
AND SECONDARY AQUIFER PLANNING,
MANAGEMENT, AND IMPLEMENTATION FUND
FISCAL YEAR 2021 BUDGET

RESOLUTION TO PASS FISCAL YEAR 2021
BUDGET

1 WHEREAS, House Bill 547 passed and approved by the 2014 Legislature allocates \$5 million
2 annually through 2019 from the Cigarette Tax to the Idaho Water Resource Board's (IWRB) Secondary
3 Aquifer Planning, Management, and Implementation Fund (Secondary Aquifer Fund) for statewide aquifer
4 stabilization; and

5 WHEREAS, House Bill 256 passed and approved by the 2019 Legislature allocated \$5 million in
6 ongoing General Fund dollars to the IWRB's Secondary Aquifer Fund for statewide water sustainability
7 and aquifer stabilization; and

8 WHEREAS, the IWRB has the opportunity to utilize up to \$2.068 million provided by the Idaho
9 National Laboratory for aquifer monitoring in the Eastern Snake Plain Aquifer and the Big Lost Basin
10 Aquifer over a three-year period; and

11 WHEREAS, un-allocated funds already in the Secondary Aquifer Fund will be carried forward into
12 the Fiscal Year 2021 budget; and

13 WHEREAS, many aquifers across Idaho are declining or have existing or potential conjunctive
14 administration water use conflicts, including the Eastern Snake Plain Aquifer, Mountain Home Aquifer,
15 Wood River Valley Aquifer, Big Lost Aquifer, Raft River Aquifer, Malad Valley Aquifer, Treasure Valley
16 Aquifer, Rathdrum Prairie Aquifer, Palouse Basin Aquifer, Lewiston Plateau Aquifer, and others; and

17 WHEREAS, the State of Idaho relies on spring discharge from the Eastern Snake Plain Aquifer
18 (ESPA) through the Thousand Springs to assist in meeting the minimum streamflow water rights at the
19 Murphy Gage established under the Swan Falls Agreement; and

20 WHEREAS, prior to the initiation of significant aquifer stabilization efforts around 2014, the ESPA
21 had been losing approximately 216,000 acre-feet annually from aquifer storage since the 1950's resulting
22 in declining ground water levels in the aquifer and declining spring flows from the aquifer; and

23 WHEREAS, during parts of 2013 and 2014 flows at the Murphy Gage approached the minimum
24 flow, and in 2015 flows at the Murphy Gage went below minimum flows; and

25 WHEREAS, the ESPA experienced conjunctive administration water use conflicts over the past two
26 decades that had the potential to significantly impact Idaho's economy; and

27 WHEREAS, on June 30, 2015 members of the Idaho Ground Water Appropriators entered into an
28 agreement with the Surface Water Coalition whereby the ground water users agreed to reduce their
29 consumptive use from the ESPA by 240,000 acre-feet annually and take other actions, and

30 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 138
31 supporting this agreement; and

32 WHEREAS, the State Water Plan includes a goal to accomplish managed recharge in the ESPA
33 averaging 250,000 acre-feet annually; and

34 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 136
35 directing the IWRB to develop the capacity to achieve 250,000 acre-feet of annual average managed
36 recharge to the ESPA by December 31, 2024; and

37 WHEREAS, in 2018 the cities on the ESPA entered into an agreement with the Surface Water
38 Coalition and the Idaho Ground Water Appropriators whereby the cities agreed to enhance the ESPA by
39 an average of 7,650 acre-feet annually; and

40 WHEREAS, the 2019 Idaho Legislature passed and approved House Concurrent Resolution 10
41 supporting this agreement; and

42 WHEREAS, the ground water use reduction and managed recharge are together designed to
43 stabilize and then recover the ESPA; and

44 WHEREAS, a 2016 study commissioned by the IWRB predicts the growing Treasure Valley
45 population could result in an increase in Domestic, Commercial, Municipal, and Industrial water-demand
46 ranging from 109,000 to 188,000 acre-feet per year by the year 2065 ; and

47 WHEREAS, the IWRB approved development of the Treasure Valley Ground Water Model in
48 partnership with the U.S. Geological Survey to support future monitoring of ground water conditions,
49 water use, and administration of ground water and surface water rights, and approved entering into an
50 agreement with the U.S. Bureau of Reclamation to complete the Boise River Storage Feasibility Study to
51 provide additional water supply through new surface water storage, in 2016 and 2017 respectively; and

52 WHEREAS, conjunctive administration water delivery calls have been made in the Big and Little
53 Wood River Basins against junior-priority upstream ground water uses; and

54 WHEREAS, the Mountain Home aquifer is being over-drafted by about 30,000 acre-feet annually;

55 WHEREAS, the deep aquifer in the Palouse Basin has been declining for decades despite
56 aggressive conservation measures; and

57 WHEREAS, the Department of Water Resources recently enacted Ground Water Management
58 Areas in the Malad Valley Aquifer and the Lewiston Plateau Aquifer in response to declining ground water
59 levels in those aquifers; and

60 WHEREAS, ground water levels in many aquifers are inadequate to sustain a supply of water for
61 surface and ground water irrigation, hydropower, municipal, industrial, and other uses, the curtailment
62 of which would cause severe economic harm to Idaho's economy; and

63 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 137
64 which recognized that stabilizing and enhancing aquifer levels is in the public interest, and directs the
65 IWRB to take actions in aquifers across the state to stabilize and enhance aquifer levels thereby
66 maintaining water supply for consumptive and non-consumptive uses and minimizing harm to Idaho's
67 economy arising from water supply shortages; and

68 WHEREAS, on April 23, 2020 the IWRB Finance Committee recommended the approval of a Fiscal
69 Year 2021 Budget for the use of available funds in the Secondary Aquifer Fund for statewide water
70 sustainability and aquifer stabilization purposes; and

71 NOW THEREFORE BE IT RESOLVED that the IWRB adopts the Fiscal Year 2021 Budget for the
72 continuously-appropriated Secondary Aquifer Planning, Management, and Implementation Fund as
73 shown in Attachment A to this resolution.

74 BE IT FURTHER RESOLVED that the budget may be adjusted if necessary based on the actual
75 amount of Cigarette Tax funds received, interest income received, amount received from the Idaho
76 National laboratory, or the actual amount of carry-over from Fiscal Year 2020.

77 BE IT FURTHER RESOLVED that funds for budgeted ESPA managed recharge infrastructure shall be
78 approved by the IWRB by resolution for each individual project in excess of \$20,000, detailing the terms
79 and conditions of approval, and must include conditions maintaining long-term access for recharge by the
80 IWRB in any facilities owned by others.

81 BE IT FURTHER RESOLVED that expenditures for identified ESPA managed recharge operations,
82 investigations, and engineering for further ESPA managed recharge capacity development may proceed
83 with no further approvals; however, the IWRB shall be kept apprised of such expenditures.

84 BE IT FURTHER RESOLVED that the Idaho National Laboratory funded monitoring and investigation
85 work in the Eastern Snake Plain Aquifer and the Big Lost Basin Aquifer may proceed with no further
86 approvals up to the total amount provided by the Idaho National Laboratory; however, the IWRB shall be
87 kept apprised of such expenditures.

88 BE IT FURTHER RESOLVED that expenditures for the Treasure Valley Ground Water Model, for
89 statewide surface water and aquifer monitoring, professional assistance for securing federal funding, and

90 administrative expenses may proceed with no further approvals; however, the IWRB shall be kept
91 apprised of such expenditures.

92 BE IT FURTHER RESOLVED that expenditures for the Operations and Maintenance costs for the
93 Cooperative Cloud Seeding Program, O&M shortages provided by the IWRB, the Cloud Seeding Modeling
94 Project, and Capital Expenses may proceed with no further approvals; however, the IWRB shall be kept
95 apprised of such expenditures. Further, it is the IWRB's stated goal that both the state and the water
96 users financially participate with Idaho Power in the Cooperative Cloud Seeding Program.

97 BE IT FURTHER RESOLVED that all other expenditures from the Secondary Aquifer Fund shall
98 require an additional approval by the IWRB by resolution.

99 BE IT FURTHER RESOLVED that the IWRB may modify this budget during Fiscal Year 2021 at a
100 properly noticed meeting of the IWRB.

DATED this 28th day of May, 2020



ROGER W. CHASE, Chairman
Idaho Water Resource Board

ATTEST 

VINCE ALBERDI, Secretary

**ATTACHMENT A - Fiscal Year 2021 Secondary Aquifer Planning, Management and Implementation Fund Budget
FY2021 DRAFT PROPOSED BUDGET FOR THE SECONDARY AQUIFER FUND**

Carry-Over From FY20	\$	3,630,000
General Fund (HB 677):	\$	5,000,000
HB547 funds - receipt of Cigarette Tax proceeds	\$	5,000,000
DOE-INL SEP Funds (\$2.068 M over 3 years)	\$	690,000
Estimated interest	\$	300,000
TOTAL	\$	14,620,000

BUDGET TRACKING

Category	Sub-Category	FY21 Budget
----------	--------------	-------------

ESPA MANAGED RECHARGE

ESPA Recharge Operations		Conveyance Cost	\$3,500,000
		O&M	\$75,000
		Equipment, Supplies	\$154,000
		Recharge Monitoring	\$526,000
		Regional Monitoring	\$225,000
		TOTAL	\$4,480,000
ESPA Managed Recharge Infrastructure Projects	Budgeted Projects	Enterprize Project	\$2,000,000 *
		Butte Market Lake	\$500,000 *
	Reserved for additional recharge infrastructure projects		\$500,000 *
	TOTAL		\$3,000,000
ESPA Recharge Investigations	Budgeted Investigations	Large Upper Valley Project	\$300,000
		Aberdeen Springfield Canal Company (ASCC)	\$200,000
		North Side Hunt Projects	\$500,000
		Reserved for additional investigations and engineering	\$300,000
	TOTAL		\$1,300,000
ESPA Hydrologic Monitoring (DOE Funding) (Year 3 of 3 - Total \$928,000)		\$310,000	
ESPA MANAGED RECHARGE TOTAL		\$9,090,000	

TREASURE VALLEY

Treasure Valley Aquifer Ground Water Model (Year 5 of 5 - Total \$2.5 M)	\$500,000
Boise River Storage Study	\$250,000 *
TREASURE VALLEY TOTAL	\$750,000

RAFT RIVER

Raft River Hydrologic Characterization	\$100,000 *
RAFT RIVER TOTAL	\$100,000

BIG LOST BASIN TOTAL

Hydrologic Monitoring (DOE Funding) (Year 3 of 3 - Total \$1.14 M)	\$380,000
BIG LOST BASIN TOTAL	\$380,000

PALOUSE BASIN

Water Sustainability Projects	\$200,000 *
PALOUSE BASIN TOTAL	\$200,000

BEAR RIVER BASIN TOTAL

Tri-State Water Sustainability Initiative	\$100,000 *
BEAR RIVER BASIN TOTAL	\$100,000

LEMHI BASIN

Lemhi Basin SCR 137	\$200,000 *
LEMHI BASIN TOTAL	\$200,000

MOUNTAIN HOME/ELMORE COUNTY

Mountain Home/Elmore County Water Sustainability Projects	\$200,000 *
MOUNTAIN HOME/ELMORE COUNTY TOTAL	\$200,000

COOPERATIVE CLOUD SEEDING PROGRAM

Operations & Maintenance Costs (Board portion 1/3 of annual cost for O & M)	\$875,000
O & M shortages provided by the IWRB	\$500,000
Cloud Seeding Modeling Project (Year 4 of 4 - Total \$1.47 Million)	\$240,000
Capital Expenses (HPC - Year 2 of 2, \$700,000 IWRB Total)	\$200,000
Program Development Activities (benefits analysis, etc.)	\$500,000 *
COOPERATIVE CLOUD SEEDING PROGRAM TOTAL	\$2,315,000

STATEWIDE	
Administrative expenses (public information, staff training, Riverware Maintenance, etc)	\$85,000
Professional Assistance for securing Federal Funding	\$100,000
Statewide surface water and aquifer monitoring	\$850,000
STATEWIDE TOTAL	\$1,035,000

5% REQUESTED HOLDBACK TOTAL	\$250,000
------------------------------------	------------------

GRAND TOTAL	\$ 14,620,000
--------------------	----------------------

* Items that will require an additional Board resolution to authorize expenditure of funds

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF AQUIFER STABILIZATION
AND AN ANALYSIS OF THE COOPERATIVE CLOUD
SEEDING PROGRAM

RESOLUTION TO APPROVE FUNDS FOR A
MODELING EFFORT TO SUPPORT THE STUDY
OF CLOUD SEEDING IMPACTS ON THE WATER
SUPPLY

1 WHEREAS, House Bill 547, passed and approved by the 2014 legislature, allocates \$5,000,000
2 annually from the Cigarette Tax to the Idaho Water Resource Board (IWRB) for statewide aquifer
3 stabilization, with the funds to be deposited into the Secondary Aquifer Planning, Management, and
4 Implementation Fund; and

5
6 WHEREAS, cloud seeding was identified as a strategy in the Eastern Snake Plain Aquifer
7 Comprehensive Management Plan (ESPA CAMP) for which stabilization and recovery of the ESPA is a
8 principal goal, and was identified as a strategy in the draft Treasure Valley Comprehensive Management
9 Plan; and

10
11 WHEREAS, a well-managed cloud seeding program can increase winter snowpack as much as 10%
12 or more, and thereby increase surface water runoff, resulting in more surface water for all uses, including
13 aquifer management projects, and less supplemental ground water pumping; and

14
15 WHEREAS, the Idaho Power Company (IPC) established a remote-operated "Pilot Program" and
16 brought its operational experience gained from its Payette River Basin program to the Upper Snake River
17 Basin as a result of the ESPA CAMP; and

18
19 WHEREAS, discussions between the IWRB, IPC, and other water users resulted in the creation of
20 a Collaborative Cloud Seeding Program (Program) to expand IPC's cloud seeding operations in the Upper
21 Snake River Basin and establish IPC run programs in the Boise River Basin, and Wood River Basin with
22 support from the IWRB and water users; and

23
24 WHEREAS, the IWRB's 2017 through 2021 Fiscal Year Budget Resolutions for the Secondary
25 Aquifer Stabilization and Secondary Aquifer Planning, Management, and Implementation Fund (Fiscal Year
26 Budget Resolution) authorized expenditure of funds for operation and maintenance (O&M) costs
27 associated with the Program and further stated the IWRB's goal that both the State and the water users
28 financially participate with IPC in the Collaborative Cloud Seeding Program; and

29
30 WHEREAS, the IWRB has paid one third of the total Program O&M costs since the 2017-2018
31 winter cloud seeding season, and made significant contributions to program build-out capital expenses
32 and operational modeling tools, providing a fifty percent cost share with IPC. Water users in the Boise,
33 Wood, and Upper Snake River basins have historically contributed different percentages of the cost for
34 annual cloud seeding O&M activities per basin. IPC has paid the remainder, typically greater than one
35 third, of the total O&M costs; and

38 WHEREAS, in accordance with direction from the IWRB, a study looking at the impacts of cloud
39 seeding on the water supply (Analysis) is underway to determine the relative percentage of supply
40 generated through cloud seeding that will become available for different water uses. Results of the
41 Analysis are intended to inform program decisions such as furthering build-out, prioritizing development
42 activities, and determining program funding obligations- to include the distribution of funding between
43 the program participants; and
44

45 WHEREAS, Idaho Department of Water Resources (IDWR) staff, with technical input from IPC and
46 others, developed a framework for the Analysis and completed an initial phase that defined water supply
47 increases to broad categories of water uses based on a statistical methodology developed by IDWR staff;
48 and
49

50 WHEREAS, IDWR staff recognize a number of assumptions were made using the statistical method
51 for determining impacts, and have identified necessary refinements for increasing the level of certainty in
52 the results which will require the use of sophisticated modeling tools, calibrated specifically for the basins
53 where cloud seeding operations occur; and
54

55 WHEREAS, the National Center for Atmospheric Research (NCAR) has developed a specialized
56 hydrologic model (WRF-Hydro) capable of factoring impacts from cloud seeding, however this model will
57 need to be calibrated for each basin where IPC cloud seeding operations occur. The total estimated cost
58 for calibrations of the model is estimated to be approximately \$216,000; and
59

60 WHEREAS, IPC has interest in acquiring the same modeling tools to support operational guidance
61 for the Cooperative Cloud Seeding Program and for refining their estimations of increased precipitation
62 due to cloud seeding; and
63

64 WHEREAS, IPC has already initiated a contract with NCAR for a portion of the proposed modeling
65 efforts, and has expressed interest in a fifty percent cost share with the IWRB for the total cost of model
66 calibrations for all basins where IPC cloud seeding operations occur; and
67

68 WHEREAS, the development of hydrologic data for the assessment of cloud seeding impacts will be
69 needed for input into a planning model to route the increased flow that results from cloud seeding
70 operations and determine benefits. NCAR is capable of developing the hydrologic data using the calibrated
71 WRF-Hydro model; and
72

73 NOW, THEREFORE BE IT RESOLVED that, the IWRB authorizes expenditures not to exceed
74 \$108,000 from the Secondary Aquifer Planning, Management, and Implementation Fund for fifty percent
75 of the costs related to the calibration of a hydrologic model to support the cloud seeding Analysis.
76

77 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$392,000 from
78 the Secondary Aquifer Planning, Management, and Implementation Fund for the development of
79 hydrologic data for the assessment of cloud seeding impacts.
80
81
82

83 BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designee, Brian Patton,
84 Executive Officer to the IWRB, to execute the necessary agreements or contracts to complete the
85 proposed modeling effort.

DATED this 21th day of January 2021.



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST 

Jo Ann Cole-Hansen, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF STATEWIDE WATER
SUSTAINABILITY AND AQUIFER STABILIZATION,
AND THE SECONDARY AQUIFER STABILIZATION,
AND SECONDARY AQUIFER PLANNING,
MANAGEMENT, AND IMPLEMENTATION FUND
FISCAL YEAR 2022 BUDGET

RESOLUTION TO PASS FISCAL YEAR 2022
BUDGET

1 WHEREAS, House Bill 547 passed and approved by the 2014 Legislature allocates \$5 million
2 annually through 2019 from the Cigarette Tax to the Idaho Water Resource Board's (IWRB) Secondary
3 Aquifer Planning, Management, and Implementation Fund (Secondary Aquifer Fund) for statewide aquifer
4 stabilization; and

5 WHEREAS, House Bill 256 passed and approved by the 2019 Legislature allocated \$5 million in
6 ongoing General Fund dollars to the IWRB's Secondary Aquifer Fund for statewide water sustainability
7 and aquifer stabilization; and

8 WHEREAS, the IWRB has the opportunity to utilize up to \$2.068 million provided by the Idaho
9 National Laboratory for aquifer monitoring in the Eastern Snake Plain Aquifer and the Big Lost Basin
10 Aquifer over a three-year period; and

11 WHEREAS, un-allocated funds already in the Secondary Aquifer Fund will be carried forward into
12 the Fiscal Year 2021 budget; and

13 WHEREAS, many aquifers across Idaho are declining or have existing or potential conjunctive
14 administration water use conflicts, including the Eastern Snake Plain Aquifer, Mountain Home Aquifer,
15 Wood River Valley Aquifer, Big Lost Aquifer, Raft River Aquifer, Malad Valley Aquifer, Treasure Valley
16 Aquifer, Rathdrum Prairie Aquifer, Palouse Basin Aquifer, Lewiston Plateau Aquifer, and others; and

17 WHEREAS, the State of Idaho relies on spring discharge from the Eastern Snake Plain Aquifer
18 (ESPA) through the Thousand Springs to assist in meeting the minimum streamflow water rights at the
19 Murphy Gage established under the Swan Falls Agreement; and

20 WHEREAS, prior to the initiation of significant aquifer stabilization efforts around 2014, the ESPA
21 had been losing approximately 216,000 acre-feet annually from aquifer storage since the 1950's resulting
22 in declining ground water levels in the aquifer and declining spring flows from the aquifer; and

23 WHEREAS, during parts of 2013 and 2014 flows at the Murphy Gage approached the minimum
24 flow, and in 2015 flows at the Murphy Gage went below minimum flows; and

25 WHEREAS, the ESPA experienced conjunctive administration water use conflicts over the past two
26 decades that had the potential to significantly impact Idaho’s economy; and

27 WHEREAS, on June 30, 2015 members of the Idaho Ground Water Appropriators entered into an
28 agreement with the Surface Water Coalition whereby the ground water users agreed to reduce their
29 consumptive use from the ESPA by 240,000 acre-feet annually and take other actions, and

30 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 138
31 supporting this agreement; and

32 WHEREAS, the State Water Plan includes a goal to accomplish managed recharge in the ESPA
33 averaging 250,000 acre-feet annually; and

34 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 136
35 directing the IWRB to develop the capacity to achieve 250,000 acre-feet of annual average managed
36 recharge to the ESPA by December 31, 2024; and

37 WHEREAS, in 2018 the cities on the ESPA entered into an agreement with the Surface Water
38 Coalition and the Idaho Ground Water Appropriators whereby the cities agreed to enhance the ESPA by
39 an average of 7,650 acre-feet annually; and

40 WHEREAS, the 2019 Idaho Legislature passed and approved House Concurrent Resolution 10
41 supporting this agreement; and

42 WHEREAS, the ground water use reduction and managed recharge are together designed to
43 stabilize and then recover the ESPA; and

44 WHEREAS, a 2016 study commissioned by the IWRB predicts the growing Treasure Valley
45 population could result in an increase in Domestic, Commercial, Municipal, and Industrial water-demand
46 ranging from 109,000 to 188,000 acre-feet per year by the year 2065 ; and

47 WHEREAS, the IWRB approved development of the Treasure Valley Ground Water Model in
48 partnership with the U.S. Geological Survey to support future monitoring of ground water conditions,
49 water use, and administration of ground water and surface water rights, and approved entering into an
50 agreement with the U.S. Bureau of Reclamation to complete the Boise River Storage Feasibility Study to
51 provide additional water supply through new surface water storage, and

52 WHEREAS, conjunctive administration water delivery calls have been made in the Big and Little
53 Wood River Basins against junior-priority upstream ground water uses; and

54 WHEREAS, the Mountain Home aquifer is being over-drafted by about 30,000 acre-feet annually;

55 WHEREAS, the deep aquifer in the Palouse Basin has been declining for decades despite
56 aggressive conservation measures; and

57 WHEREAS, the Department of Water Resources recently enacted Ground Water Management
58 Areas in the Malad Valley Aquifer and the Lewiston Plateau Aquifer in response to declining ground water
59 levels in those aquifers; and

60 WHEREAS, ground water levels in many aquifers are inadequate to sustain a supply of water for
61 surface and ground water irrigation, hydropower, municipal, industrial, and other uses, the curtailment
62 of which would cause severe economic harm to Idaho's economy; and

63 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 137
64 which recognized that stabilizing and enhancing aquifer levels is in the public interest, and directs the
65 IWRB to take actions in aquifers across the state to stabilize and enhance aquifer levels thereby
66 maintaining water supply for consumptive and non-consumptive uses and minimizing harm to Idaho's
67 economy arising from water supply shortages; and

68 WHEREAS, on May 10, 2021 the IWRB Finance Committee recommended the approval of a Fiscal
69 Year 2022 Budget for the use of available funds in the Secondary Aquifer Fund for statewide water
70 sustainability and aquifer stabilization purposes; and

71 NOW THEREFORE BE IT RESOLVED that the IWRB adopts the Fiscal Year 2022 Budget for the
72 continuously-appropriated Secondary Aquifer Planning, Management, and Implementation Fund as
73 shown in Attachment A to this resolution.

74 BE IT FURTHER RESOLVED that the budget may be adjusted if necessary based on the actual
75 amount of Cigarette Tax funds received, interest income received, amount received from the Idaho
76 National laboratory, or the actual amount of carry-over from Fiscal Year 2021.

77 BE IT FURTHER RESOLVED that funds for budgeted ESPA managed recharge infrastructure shall be
78 approved by the IWRB by resolution for each individual project in excess of \$20,000, detailing the terms
79 and conditions of approval, and must include conditions maintaining long-term access for recharge by the
80 IWRB in any facilities owned by others.

81 BE IT FURTHER RESOLVED that expenditures for identified ESPA managed recharge operations,
82 investigations, and engineering for further ESPA managed recharge capacity development may proceed
83 with no further approvals; however, the IWRB shall be kept apprised of such expenditures.

84 BE IT FURTHER RESOLVED that the Idaho National Laboratory funded monitoring and investigation
85 work in the Raft River Basin may proceed with no further approvals up to the total amount provided by
86 the Idaho National Laboratory; however, the IWRB shall be kept apprised of such expenditures.

87 BE IT FURTHER RESOLVED that expenditures for monitoring in support of the Treasure Valley
88 Ground Water Model, for statewide surface water and aquifer monitoring, professional assistance for
89 securing federal funding, and administrative expenses may proceed with no further approvals; however,
90 the IWRB shall be kept apprised of such expenditures.

91 BE IT FURTHER RESOLVED that expenditures for the Operations and Maintenance costs for the
92 Cooperative Cloud Seeding Program, O&M shortages provided by the IWRB, the Cloud Seeding Modeling
93 Project, and Capital Expenses may proceed with no further approvals; however, the IWRB shall be kept
94 apprised of such expenditures. Further, it is the IWRB's stated goal that both the state and the water
95 users financially participate with Idaho Power in the Cooperative Cloud Seeding Program.

96 BE IT FURTHER RESOLVED that all other expenditures from the Secondary Aquifer Fund shall
97 require an additional approval by the IWRB by resolution.

98 BE IT FURTHER RESOLVED that the IWRB may modify this budget during Fiscal Year 2022 at a
99 properly noticed meeting of the IWRB.

DATED this 21st day of May, 2021



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST 

Jo Ann Cole-Hansen, Secretary

ATTACHMENT A - Fiscal Year 2022 Secondary Aquifer Planning, Management and Implementation Fund Budget

FY2022 DRAFT PROPOSED BUDGET FOR THE SECONDARY AQUIFER FUND

Carry-Over From FY21	\$	5,000,000
General Fund (SB 1190)	\$	5,000,000
HB547 funds - receipt of Cigarette Tax proceeds	\$	5,000,000
DOE-INL SEP Funds (\$832K over 3 years)	\$	277,000
Estimated interest	\$	100,000
TOTAL	\$	15,377,000

Category		Sub-Category	FY22 Budgeted
ESPA MANAGED RECHARGE PROGRAM			
ESPA Recharge Operations	Conveyance Cost		\$3,500,000
	O&M		\$75,000
	Equipment, Supplies		\$115,000
	Recharge Monitoring		\$520,000
	Regional Monitoring		\$225,000
	TOTAL		\$4,435,000
ESPA Managed Recharge Infrastructure Projects	Budgeted Projects	ESPA Upper Valley sites	\$1,500,000 *
		Minidoka Irrigation District Recharge Projects	\$300,000 *
		Butte Market Lake Recharge Wells	\$250,000 *
	Enterprize Project		\$200,000 *
	Reserve for Additional Infrastructure Projects		\$500,000 *
	TOTAL		\$2,750,000
ESPA Recharge Investigations	Budgeted Investigations	Large Upper Valley Project	\$500,000
		Reserved for additional investigations and engineering	\$500,000
	TOTAL		\$1,000,000
ESPA MANAGED RECHARGE PROGRAM TOTAL			\$8,185,000
CLOUD SEEDING PROGRAM			
Operations & Maintenance	Boise, Wood, Upper Snake	IWRB 1/3 Cost Share	\$950,000
		Program Shortages	\$500,000
		Total	\$1,750,000 *
	Bear	Pilot Program	\$300,000 *
Capital	Weather Instrumentation	Replacement/Enhancement/Upgrade (Year 1 of 5 - Total \$200,000)	\$10,000
		Total	\$10,000
Modeling	SNOWIE Data Analysis (Year 1 of 3 - Total \$600,000)		\$200,000
	HPC Administration		\$43,000
	Total		\$243,000
Research & Development	Program Expansion	New Basin Feasibility Studies	\$500,000 *
		Total	\$500,000 *
	Technology	SWEdar Project	\$35,000 *
Total		\$535,000	
CLOUD SEEDING PROGRAM TOTAL			\$2,538,000
TREASURE VALLEY			
Monitoring in support of the Treasure Valley model			\$125,000 *
TREASURE VALLEY TOTAL			\$125,000
RAFT RIVER			
Raft River Hydrologic Characterization			\$225,000
Hydrologic Monitoring (DOE Funding) (Year 2 of 3 - Total \$832K)			\$277,000
RAFT RIVER TOTAL			\$502,000
BIG LOST BASIN			
USGS/IGS Support			\$75,000
Big Lost Stream gages (one year funding)			\$100,000
BIG LOST BASIN TOTAL			\$175,000
PALOUSE BASIN			
Water Supply Alternatives Next Steps			\$250,000 *
PALOUSE BASIN TOTAL			\$250,000
BEAR RIVER BASIN			
Tri-State Water Sustainability Initiative			\$250,000 *
BEAR RIVER BASIN TOTAL			\$250,000
LEWISTON			
Future Water Sustainability Project			\$250,000 *
LEWISTON TOTAL			\$250,000
MOUNTAIN HOME/ELMORE COUNTY			
Mountain Home/Elmore County Water Sustainability Projects			\$700,000 *
MOUNTAIN HOME/ELMORE COUNTY TOTAL			\$700,000
LEMHI BASIN			
Support of Water Sustainability Initiatives			\$500,000 *
LEMHI BASIN TOTAL			\$500,000
STATEWIDE			
Administrative expenses (public information, staff training, Riverware Maintenance, etc)			\$85,000
Professional Assistance for Federal Issues			\$100,000
Statewide surface water and aquifer monitoring			\$300,000
STATEWIDE TOTAL			\$485,000
GRAND TOTAL			\$ 13,960,000
Reserve for Work in Other Priority Aquifers Total			\$ 1,417,000

* Items that will require an additional Board resolution to authorize expenditure of funds

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF EXPANSION OF THE CLOUD SEEDING PROGRAM

RESOLUTION TO APPROVE FUNDS FOR THE DEVELOPMENT OF A STATEWIDE ASSESSMENT AND AUTHORIZING A CLOUD SEEDING PROGRAM IN THE BEAR RIVER BASIN

1 WHEREAS, House Bill 547, passed and approved by the 2014 legislature, allocates \$5,000,000
2 annually from the Cigarette Tax to the Idaho Water Resource Board (IWRB) for statewide aquifer
3 stabilization, with the funds to be deposited into the Secondary Aquifer Planning, Management, and
4 Implementation Fund; and

5
6 WHEREAS, Senate Bill 1402, passed and approved by the 2016 Legislature, allocated \$5,000,000
7 in ongoing General Fund dollars, and \$2,500,00 in Economic Recovery Reserve Funds to the IWRB's
8 Secondary Aquifer Fund for statewide water sustainability and aquifer stabilization; and

9
10 WHEREAS, cloud seeding was identified as a strategy in the Eastern Snake Plain Aquifer
11 Comprehensive Management Plan (ESPA CAMP) for which stabilization and recovery of the ESPA is a
12 principal goal, and was identified as a strategy in the draft Treasure Valley Comprehensive Management
13 Plan; and

14
15 WHEREAS, a well-managed cloud seeding program can increase winter snowpack as much as 10%
16 or more, and thereby increase surface water runoff, resulting in more surface water for all uses, including
17 aquifer management projects, and less supplemental ground water pumping; and

18
19 WHEREAS, Idaho Power Company (IPC) brought operational experience it gained from its Payette
20 River Basin program and established a remote-operated "Pilot Program" in the Upper Snake River Basin
21 as a result of the ESPA CAMP; and

22
23 WHEREAS, discussions between the IWRB, IPC, and other water users resulted in the creation of
24 a collaborative Cloud Seeding Program (Program), expanding cloud seeding operations in the Upper Snake
25 River Basin and established programs in the Boise River Basin, and Wood River Basin with support from
26 the IWRB and local water users; and

27
28 WHEREAS, House Bill 266, passed and approved by the 2021 legislature, created I.C. § 42-2301,
29 and recognized cloud seeding has provided a unique and innovative opportunity to support sustainable
30 water supplies for the State, and recommended that the IWRB complete an assessment of basins, and
31 work with affected stakeholders to implement cloud seeding projects in other basins that would benefit;
32 and

33
34 WHEREAS, an assessment of basin-specific climatological characteristics can be used to determine
35 if conditions amenable to cloud seeding exist in basins of interest; and

36
37 WHEREAS, the National Center for Atmospheric Research (NCAR) is an independent research
38 based organization that is well-qualified and experienced in providing climatological assessments and

39 scientifically based program design for the development of cloud seeding programs; and

40

41 WHEREAS, a statewide assessment will provide initial mapping of regions across the state that
42 possess conditions amenable to cloud seeding, and will serve as the foundation for further analysis and
43 program design for specific basins of interest; and

44

45 WHEREAS, existing water supplies are not sufficient to support existing water rights in the Bear
46 River Basin because drought conditions have led to a lack of natural flow water supplies; and

47

48 WHEREAS, concern for existing and future water supplies have prompted stakeholder interest in
49 the development of a cloud seeding project in the Bear River Basin; and

50

51 WHEREAS, based on the insufficiency of existing water supplies, the IWRB seeks to develop a pilot
52 cloud seeding program in the Bear River Basin, beginning with the cloud seeding season that runs
53 November 2021 through April 2022 (season 2021–2022); and

54

55 WHEREAS, implementation of a program in the Bear River Basin will require a detailed
56 climatological analysis, factoring weather conditions at varying elevations, to develop a comprehensive
57 cloud seeding program design and provide an estimation of the potential increase in snowpack that results
58 from the proposed design; and

59

60 WHEREAS, to initiate a pilot program in the Bear River Basin for the 2021–2022 season, the use
61 of aircraft seeding has been identified as a practical near-term strategy; and

62

63 WHEREAS, the procurement of a program aircraft and accompanying operator for the Bear River
64 Basin will be required for the 2021–2022 season. Based on the operational costs for an aircraft under the
65 existing Program, the total cost for one season of aircraft operations is estimated to be up to \$775,000;
66 and

67

68 WHEREAS, the Bear River Basin is adjacent to the Upper Snake River Basin where existing aircraft
69 operations occur under the current collaborative Program, creating a potential opportunity to share
70 infrastructure and costs between basins. When there are not seedable storms in the Bear River Basin, an
71 additional aircraft could be used to support airborne seeding in the Upper Snake Basin, where an existing
72 need has been identified.

73

74 WHEREAS, NCAR estimates the costs for completing a statewide assessment to be \$30,000 and
75 development of a program design for the Bear River Basin, to be approximately \$310,000; and

76

77 NOW, THEREFORE BE IT RESOLVED that, the IWRB authorizes expenditures not to exceed \$30,000
78 from the Secondary Aquifer Planning, Management, and Implementation Fund for costs related to the
79 development of a statewide climatology assessment.

80

81 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$310,000 from
82 the Secondary Aquifer Planning, Management, and Implementation Fund for costs related to the
83 development of a cloud seeding program design for the Bear River Basin.

84

85 BE IT FURTHER RESOLVED that, the IWRB authorizes the operation of a pilot cloud seeding
86 program in the Bear River Basin. This authorization is limited to the period of November 1, 2021 through
87 April 15, 2022.

88

89 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$775,000 from
90 the Secondary Aquifer Planning, Management, and Implementation Fund for costs related to the
91 operations and maintenance of a pilot aircraft program in the Bear River Basin for the 2021-2022 season.

92

93 BE IT FURTHER RESOLVED that, any aircraft obtained for use in the Bear River Basin pilot program,
94 as authorized herein, may also be used to provide additional seeding in the adjacent Upper Snake River
95 Basin when seedable storms are not occurring simultaneously in both basins.

96

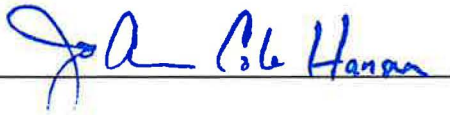
97 BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designee, Brian Patton,
98 Executive Officer to the IWRB, to execute the necessary agreements or contracts related to the IWRB
99 authorizations provided herein.

DATED this 23rd day of July, 2021.



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST



Jo Ann Cole-Hansen, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF CLOUD SEEDING IN THE
STATE OF IDAHO

RESOLUTION TO DEVELOP TEMPORARY
AUTHORIZATION OF EXISTING CLOUD
SEEDING PROGRAMS

1 WHEREAS, House Bill 266 (HB 266), passed and approved by the 2021 legislature, recognized
2 that cloud seeding has provided a unique and innovative opportunity to support sustainable water
3 supplies for the State of Idaho, and designated the Idaho Water Resource Board (IWRB) as the agency
4 responsible for authorization of cloud seeding programs within the State; and

5
6 WHEREAS, cloud seeding activities have occurred in the State of Idaho for several decades; and

7
8 WHEREAS, HB266 requires the IWRB to authorize local or statewide cloud seeding programs that
9 operate within the State of Idaho; and

10
11 WHEREAS, existing cloud seeding programs planning to operate during the 2021-2022 cloud
12 seeding season must obtain prior authorization from the IWRB; and

13
14 WHEREAS, to allow for the continued operation of existing cloud seeding programs for the
15 upcoming season 2021-2022, the IWRB determined at its regular July meeting that it would provide a one-
16 year authorization of existing cloud seeding programs while it considers a more comprehensive, and
17 possible multi-year, authorization for subsequent years; and

18
19 WHEREAS, to provide information for the IWRB's consideration of a one-year authorization of
20 cloud seeding programs, IWRB staff requested a brief summary of program operations from
21 representatives of the programs known to operate within the State of Idaho; and

22
23 WHEREAS, cloud seeding program information was received for the High Country Resource
24 Conservation and Development (HCRCD) Program, the Idaho Collaborative Cloud Seeding (Collaborative)
25 Program, and the Idaho Power Company (IPC) Program; and

26
27 WHEREAS, the HCRCD Program currently operates a manual ground generator program in the
28 Upper Snake River Basin and has been in operation for over two decades. This program is operated by Let
29 it Snow, Inc., and works in partnership with IPC to provide meteorological support; and

30
31 WHEREAS, the Collaborative Program currently operates a comprehensive cloud program
32 including remote ground generators and aircraft. This program operates in the Upper Snake River Basin,
33 the Wood River Basin, and the Boise River basin, and has been in operation since 2009. Operations and
34 meteorological support are provided by IPC; and

35
36 WHEREAS, the IPC Program currently operates a comprehensive cloud seeding program including
37 remote ground generators and aircraft. This program operates in the Payette River Basin and has been in
38 operation since 2003. Operations and meteorological support are provided by IPC; and

39
40 WHEREAS, the State of Utah currently operates a manual ground generator program in Northern

41 Utah, with generators located in the Goose Creek and Bear River Basin's of Idaho. Operations and
42 meteorological support are provided by North American Weather Consultants.

43

44 NOW, THEREFORE BE IT RESOLVED that, the IWRB hereby approves a one-year authorization to
45 operate cloud seeding activities for the HCRCD Program.

46

47 BE IT FURTHER RESOLVED that, the IWRB hereby approves a one-year authorization to operate
48 cloud seeding activities for the Collaborative Program.

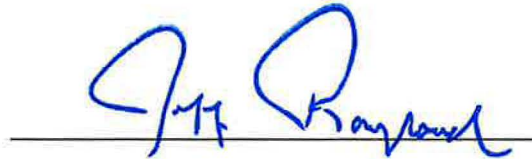
49

50 BE IT FURTHER RESOLVED that, the IWRB hereby approves a one-year authorization to operate
51 cloud seeding activities for the IPC Program.

52

53 BE IT FURTHER RESOLVED that, the IWRB hereby approves a one-year authorization to operate
54 cloud seeding activities for the State of Utah Program.

DATED this 17th day of September, 2021.



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST



Jo Ann Cole-Hansen, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

**IN THE MATTER OF AQUIFER STABILIZATION
AND THE COLLABORATIVE CLOUD SEEDING
PROGRAM**

**RESOLUTION TO APPROVE FUNDS FOR THE
CLOUD SEEDING PROGRAM**

1 WHEREAS, House Bill 547, passed and approved by the 2014 legislature, allocates \$5,000,000
2 annually from the Cigarette Tax to the Idaho Water Resource Board (IWRB) for statewide aquifer
3 stabilization, with the funds to be deposited into the Secondary Aquifer Planning, Management, and
4 Implementation Fund; and

5
6 WHEREAS, cloud seeding was identified as a strategy in the Eastern Snake Plain Aquifer
7 Comprehensive Management Plan (ESPA CAMP) for which stabilization and recovery of the ESPA is a
8 principal goal, and was identified as a strategy in the draft Treasure Valley Comprehensive Management
9 Plan; and

10
11 WHEREAS, a well-managed cloud seeding program can increase winter snowpack as much as 10%
12 or more, and thereby increase surface water runoff, resulting in more surface water for all uses, including
13 aquifer management projects, and less supplemental ground water pumping; and

14
15 WHEREAS, the Idaho Power Company (IPC) established a remote-operated “Pilot Program” and
16 brought its operational experience gained from its Payette River Basin program to the Upper Snake River
17 Basin as a result of the ESPA CAMP; and

18
19 WHEREAS, discussions between the IWRB, IPC, and other water users resulted in the creation of
20 a Collaborative Cloud Seeding Program (Program) to expand IPC’s cloud seeding operations in the Upper
21 Snake River Basin and establish IPC run programs in the Boise River Basin, and Wood River Basin with
22 support from the IWRB and water users; and

23
24 WHEREAS, the IWRB has paid one third of the total Program O&M costs since the 2017-2018
25 winter cloud seeding season; and

26
27 WHEREAS water users in the Boise, Wood, and Upper Snake River basins have historically
28 contributed different percentages of the cost for annual cloud seeding O&M activities per basin; and

29
30 WHEREAS, for the 2020-2021 winter cloud seeding season, the IWRB made a one-time
31 contribution of funding to help offset anticipated O&M funding shortages from the water users in each
32 basin and to equalize the percentages being paid by the water users in each basin; and

33
34 WHEREAS, the IWRB, through its fiscal year 2022 budget resolution (FY22 Resolution), authorized
35 \$950,000 for an estimated one-third of the O&M costs for the 2021-2022 cloud seeding season, and an
36 additional \$500,000 in one-time funding for the offset of O&M funding shortages for the Collaborative
37 Cloud Seeding Program; and

38
39 WHEREAS, O&M costs have been refined since the passing of the FY22 Resolution and IPC
40 estimates the total cost for O&M for the 2021-2022 season will be \$2,933,000, one-third of which is

41 estimated to be \$980,000; and

42

43 WHEREAS, in July of 2019, the IWRB authorized \$700,000 for fifty percent of the capital costs
44 associated with the purchase of a new High Performance Computing system (HPC) to house the weather
45 research forecasting model (WRF model) that supports IPC’s operations and analysis; and

46

47 WHEREAS the total annual administrative costs to operate and maintain the HPC, to be split
48 equally between the IWRB and IPC, are approximately \$80,000 and IPC; and

49

50 WHEREAS there is a need to support weather instrumentation and the collection of data for the
51 design, operations, and analysis of the Board’s Cloud Seeding Program; and

52

53 WHEREAS Boise State University (BSU), with funding support from IPC, has developed a SWEdar
54 device designed to act as a micro-SNOTEL site and can be used to support the needs of the Cloud Seeding
55 Program; and

56

57 WHEREAS BSU has requested \$35,000 from the IWRB to support the final year of development of
58 the SWEdar devices.

59

60 NOW, THEREFORE BE IT RESOLVED that, the IWRB authorizes expenditures not to exceed \$33,000
61 from the Secondary Aquifer Planning, Management, and Implementation Fund for the 2020-2021 cloud
62 seeding season in addition to funding for O&M program shortages already approved in the 2022 Fiscal
63 Year Budget Resolution.

64

65 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$30,000 from the
66 Secondary Aquifer Planning, Management, and Implementation Fund for the 2020-2021 cloud seeding
67 season in addition to the funding for one-third of O&M funding already approved in the 2022 Fiscal Year
68 Budget Resolution.

69

70 BE IT FURTHER RESOLVED that, one-time authorized expenditures per basin shall not exceed the
71 following and are contingent upon anticipated water user contributions as identified in the budget table
72 below:

73

Basin	Total Program O&M Cost	Water User Cost Share (Approx 15%)	IPC Share	IWRB Share	One-Time IWRB Contribution (Approx 18%)
Boise River	\$ 832,000	\$ 125,000	\$ 278,000	\$ 278,000	\$ 151,000
Wood River	\$ 610,000	\$ 92,000	\$ 204,000	\$ 204,000	\$ 110,000
Upper Snake River	\$ 1,491,000	\$ 225,000	\$ 497,000	\$ 497,000	\$ 272,000
SubTotal	\$ 2,933,000	\$ 442,000	\$ 979,000	\$ 979,000	\$ 533,000
HPC Administration	\$ 80,000		\$ 40,000	\$ 40,000	
Program Shortages				\$ 533,000	
Total	\$ 3,013,000	\$ 442,000	\$ 1,018,000	\$ 1,553,000	

74

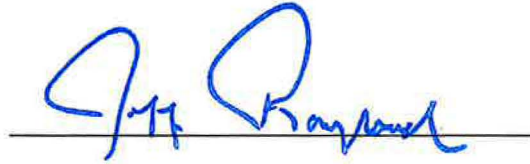
75

76 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$35,000 from the
77 Secondary Aquifer Planning, Management, and Implementation Fund for the final year development of
78 SWEdar devices.

79
80
81

BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designee, Brian Patton, Executive Officer to the IWRB, to execute the necessary agreements or contracts.

DATED this 19th day of November 2021.



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST 
Jo Ann Cole-Hansen, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF STATEWIDE WATER
SUSTAINABILITY AND AQUIFER STABILIZATION,
AND THE SECONDARY AQUIFER STABILIZATION,
AND SECONDARY AQUIFER PLANNING,
MANAGEMENT, AND IMPLEMENTATION FUND
FISCAL YEAR 2023 BUDGET

RESOLUTION TO PASS FISCAL YEAR 2023
BUDGET

1 WHEREAS, House Bill 547 passed and approved by the 2014 Legislature allocates \$5 million
2 annually through 2019 from the Cigarette Tax to the Idaho Water Resource Board's (IWRB) Secondary
3 Aquifer Planning, Management, and Implementation Fund (Secondary Aquifer Fund) for statewide aquifer
4 stabilization; and

5 WHEREAS, House Bill 256 passed and approved by the 2019 Legislature allocated \$5 million in
6 ongoing General Fund dollars to the IWRB's Secondary Aquifer Fund for statewide water sustainability
7 and aquifer stabilization; and

8 WHEREAS, the IWRB has the opportunity to utilize up to \$2.068 million provided by the Idaho
9 National Laboratory for aquifer monitoring in the Eastern Snake Plain Aquifer and the Big Lost Basin
10 Aquifer over a three-year period; and

11 WHEREAS, un-allocated funds already in the Secondary Aquifer Fund will be carried forward into
12 the Fiscal Year 2021 budget; and

13 WHEREAS, many aquifers across Idaho are declining or have existing or potential conjunctive
14 administration water use conflicts, including the Eastern Snake Plain Aquifer, Mountain Home Aquifer,
15 Wood River Valley Aquifer, Big Lost Aquifer, Raft River Aquifer, Malad Valley Aquifer, Treasure Valley
16 Aquifer, Rathdrum Prairie Aquifer, Palouse Basin Aquifer, Lewiston Plateau Aquifer, and others; and

17 WHEREAS, the State of Idaho relies on spring discharge from the Eastern Snake Plain Aquifer
18 (ESPA) through the Thousand Springs to assist in meeting the minimum streamflow water rights at the
19 Murphy Gage established under the Swan Falls Agreement; and

20 WHEREAS, prior to the initiation of significant aquifer stabilization efforts around 2014, the ESPA
21 had been losing approximately 216,000 acre-feet annually from aquifer storage since the 1950's resulting
22 in declining ground water levels in the aquifer and declining spring flows from the aquifer; and

23 WHEREAS, during parts of 2013 and 2014 flows at the Murphy Gage approached the minimum
24 flow, and in 2015 flows at the Murphy Gage went below minimum flows; and

25 WHEREAS, the ESPA experienced conjunctive administration water use conflicts over the past two
26 decades that had the potential to significantly impact Idaho’s economy; and

27 WHEREAS, on June 30, 2015 members of the Idaho Ground Water Appropriators entered into an
28 agreement with the Surface Water Coalition whereby the ground water users agreed to reduce their
29 consumptive use from the ESPA by 240,000 acre-feet annually and take other actions, and

30 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 138
31 supporting this agreement; and

32 WHEREAS, the State Water Plan includes a goal to accomplish managed recharge in the ESPA
33 averaging 250,000 acre-feet annually; and

34 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 136
35 directing the IWRB to develop the capacity to achieve 250,000 acre-feet of annual average managed
36 recharge to the ESPA by December 31, 2024; and

37 WHEREAS, in 2018 the cities on the ESPA entered into an agreement with the Surface Water
38 Coalition and the Idaho Ground Water Appropriators whereby the cities agreed to enhance the ESPA by
39 an average of 7,650 acre-feet annually; and

40 WHEREAS, the 2019 Idaho Legislature passed and approved House Concurrent Resolution 10
41 supporting this agreement; and

42 WHEREAS, the ground water use reduction and managed recharge are together designed to
43 stabilize and then recover the ESPA; and

44 WHEREAS, a 2016 study commissioned by the IWRB predicts the growing Treasure Valley
45 population could result in an increase in Domestic, Commercial, Municipal, and Industrial water-demand
46 ranging from 109,000 to 188,000 acre-feet per year by the year 2065 ; and

47 WHEREAS, the IWRB approved development of the Treasure Valley Ground Water Model in
48 partnership with the U.S. Geological Survey to support future monitoring of ground water conditions,
49 water use, and administration of ground water and surface water rights, and approved entering into an
50 agreement with the U.S. Bureau of Reclamation to complete the Boise River Storage Feasibility Study to
51 provide additional water supply through new surface water storage, and

52 WHEREAS, conjunctive administration water delivery calls have been made in the Big and Little
53 Wood River Basins against junior-priority upstream ground water uses; and

54 WHEREAS, the Mountain Home aquifer is being over-drafted by about 30,000 acre-feet annually;

55 WHEREAS, the deep aquifer in the Palouse Basin has been declining for decades despite
56 aggressive conservation measures; and

57 WHEREAS, the Department of Water Resources recently enacted Ground Water Management
58 Areas in the Malad Valley Aquifer and the Lewiston Plateau Aquifer in response to declining ground water
59 levels in those aquifers; and

60 WHEREAS, ground water levels in many aquifers are inadequate to sustain a supply of water for
61 surface and ground water irrigation, hydropower, municipal, industrial, and other uses, the curtailment
62 of which would cause severe economic harm to Idaho's economy; and

63 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 137
64 which recognized that stabilizing and enhancing aquifer levels is in the public interest, and directs the
65 IWRB to take actions in aquifers across the state to stabilize and enhance aquifer levels thereby
66 maintaining water supply for consumptive and non-consumptive uses and minimizing harm to Idaho's
67 economy arising from water supply shortages; and

68 WHEREAS, on May 12, 2022 the IWRB Finance Committee recommended the approval of a Fiscal
69 Year 2023 Budget for the use of available funds in the Secondary Aquifer Fund for statewide water
70 sustainability and aquifer stabilization purposes; and

71 NOW THEREFORE BE IT RESOLVED that the IWRB adopts the Fiscal Year 2023 Budget for the
72 continuously-appropriated Secondary Aquifer Planning, Management, and Implementation Fund as
73 shown in Attachment A to this resolution.

74 BE IT FURTHER RESOLVED that the budget may be adjusted if necessary based on the actual
75 amount of Cigarette Tax funds received, interest income received, amount received from the Idaho
76 National laboratory, or the actual amount of carry-over from Fiscal Year 2022.

77 BE IT FURTHER RESOLVED that expenditures for identified ESPA managed recharge operations,
78 investigations, and engineering for further ESPA managed recharge capacity development may proceed
79 with no further approvals; however, the IWRB shall be kept apprised of such expenditures.

80 BE IT FURTHER RESOLVED that the Idaho National Laboratory funded monitoring and investigation
81 work in the Raft River Basin may proceed with no further approvals up to the total amount provided by
82 the Idaho National Laboratory; however, the IWRB shall be kept apprised of such expenditures.

83 BE IT FURTHER RESOLVED that expenditures for monitoring in support of the Treasure Valley
84 Ground Water Model, for statewide surface water and aquifer monitoring, professional assistance for
85 securing federal funding, and administrative expenses may proceed with no further approvals; however,
86 the IWRB shall be kept apprised of such expenditures.

87 BE IT FURTHER RESOLVED that expenditures for the Operations and Maintenance costs for the
88 Cooperative Cloud Seeding Program, O&M shortages provided by the IWRB, the Cloud Seeding Modeling
89 Project, and Capital Expenses may proceed with no further approvals; however, the IWRB shall be kept

90 apprised of such expenditures. Further, it is the IWRB's stated goal that both the state and the water
91 users financially participate with Idaho Power in the Cooperative Cloud Seeding Program.

92 BE IT FURTHER RESOLVED that the IWRB may modify this budget during Fiscal Year 2023 at a
93 properly noticed meeting of the IWRB.

DATED this 20th day of May 2022



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST



Jo Ann Cole-Hansen, Secretary

ATTACHMENT A - Fiscal Year 2023 Secondary Aquifer Planning, Management and Implementation Fund Budget

FY2023 PROPOSED BUDGET FOR THE SECONDARY AQUIFER FUND

Estimated Carry-Over From FY22	\$	5,600,000
General Fund (HB 769)	\$	5,000,000
HB547 funds - receipt of Cigarette Tax proceeds	\$	5,000,000
DOE-INL SEP Funds (\$832K over 3 years) (year 3 of 3)	\$	277,000
Estimated interest	\$	100,000
TOTAL	\$	15,977,000

Category		Sub-Category	FY23 Budgeted
ESPA MANAGED RECHARGE PROGRAM			
ESPA Recharge Operations	Conveyance Cost		\$3,500,000
	O&M (equipment, supplies, operational fees, etc.)		\$215,000
	Recharge Monitoring		\$560,000
	Regional Monitoring		\$225,000
	TOTAL		\$4,500,000
ESPA Recharge Investigations	Budgeted Investigations	Small Upper Valley site characterization & canal capacity investigations (4-5)	\$1,000,000
		Reserved for additional investigations and engineering	\$500,000
		TOTAL	\$1,500,000
ESPA MANAGED RECHARGE PROGRAM TOTAL			\$6,000,000
CLOUD SEEDING PROGRAM			
Operations & Maintenance	Boise, Wood, Upper Snake	IWRB 2/3 Cost Share	\$2,100,000
	Bear	2022-2023 Operations	\$750,000
		TOTAL	\$2,850,000
Capital	Weather Instrumentation	Replacement/Enhancement/Upgrade (Year 1 of 5 - Total \$200,000)	\$25,000
	Expansion	Bear River Basin - Instrumentation	\$500,000
		TOTAL	\$525,000
Modeling			\$200,000
		TOTAL	\$200,000
Research & Development	Technology	SNOWIE Data Analysis	\$1,025,000
Reserve for Additional Program Costs			\$700,000
		TOTAL	\$1,725,000
CLOUD SEEDING PROGRAM TOTAL			\$5,275,000
TREASURE VALLEY			
Evaluation of Treasure Valley Recharge			\$300,000
Monitoring in support of the Treasure Valley model (annual)			\$125,000
TREASURE VALLEY TOTAL			\$425,000
RAFT RIVER			
Raft River Hydrologic Characterization (3 of 3 years)			\$225,000
Hydrologic Monitoring (DOE Funding) (Year 3 of 3 - Total \$832K)			\$277,000
RAFT RIVER TOTAL			\$502,000
BIG LOST BASIN			
Monitoring in support of Big Lost model development (annual)			\$100,000
BIG LOST BASIN TOTAL			\$100,000
PALOUSE BASIN			
Water Supply Alternatives Next Steps			\$250,000 *
PALOUSE BASIN TOTAL			\$250,000
BEAR RIVER BASIN			
Tri-State Water Sustainability Initiative			\$250,000 *
BEAR RIVER BASIN TOTAL			\$250,000
LEMHI BASIN			
Support of Water Sustainability Initiatives per settlement			\$500,000 *
LEMHI BASIN TOTAL			\$500,000
WOOD RIVER BASIN			
Conservation, infrastructure fund associated with settlement			\$200,000
Camas GW characterization, drilling, water levels associated with settlement			\$300,000
WOOD RIVER BASIN TOTAL			\$500,000
STATEWIDE			
Administrative and Professional Services (includes media & lobbying services)			\$300,000
ESPA Thousand Springs Discharge methodology (Kjelstrom)			\$500,000
Statewide surface water and aquifer monitoring			\$350,000
STATEWIDE TOTAL			\$1,150,000
GRAND TOTAL			\$14,952,000
Reserve for Work in Other Priority Aquifers Total			\$1,025,000 *
* Items that will require an additional Board resolution to authorize expenditure of funds			

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF STATEWIDE WATER
SUSTAINABILITY AND AQUIFER STABILIZATION,
AND THE SECONDARY AQUIFER STABILIZATION,
AND SECONDARY AQUIFER PLANNING,
MANAGEMENT, AND IMPLEMENTATION FUND
FISCAL YEAR 2024 BUDGET

RESOLUTION TO PASS FISCAL YEAR 2024
BUDGET

1 WHEREAS, House Bill 547 passed and approved by the 2014 Legislature allocates \$5 million
2 annually through 2019 from the Cigarette Tax to the Idaho Water Resource Board’s (IWRB) Secondary
3 Aquifer Planning, Management, and Implementation Fund (Secondary Aquifer Fund) for statewide aquifer
4 stabilization; and

5 WHEREAS, House Bill 256 passed and approved by the 2019 Legislature allocated \$5 million in
6 ongoing General Fund dollars to the IWRB’s Secondary Aquifer Fund for statewide water sustainability
7 and aquifer stabilization; and

8 WHEREAS, un-allocated funds already in the Secondary Aquifer Fund will be carried forward into
9 the Fiscal Year 2023 budget; and

10 WHEREAS, many aquifers across Idaho are declining or have existing or potential conjunctive
11 administration water use conflicts, including the Eastern Snake Plain Aquifer, Mountain Home Aquifer,
12 Wood River Valley Aquifer, Big Lost Aquifer, Raft River Aquifer, Malad Valley Aquifer, Treasure Valley
13 Aquifer, Rathdrum Prairie Aquifer, Palouse Basin Aquifer, Lewiston Plateau Aquifer, and others; and

14 WHEREAS, the State of Idaho relies on spring discharge from the Eastern Snake Plain Aquifer
15 (ESPA) through the Thousand Springs to assist in meeting the minimum streamflow water rights at the
16 Murphy Gage established under the Swan Falls Agreement; and

17 WHEREAS, prior to the initiation of significant aquifer stabilization efforts around 2014, the ESPA
18 had been losing approximately 216,000 acre-feet annually from aquifer storage since the 1950’s resulting
19 in declining ground water levels in the aquifer and declining spring flows from the aquifer; and

20 WHEREAS, during parts of 2013 and 2014 flows at the Murphy Gage approached the minimum
21 flow, and in 2015 flows at the Murphy Gage went below minimum flows; and

22 WHEREAS, the ESPA experienced conjunctive administration water use conflicts over the past two
23 decades that had the potential to significantly impact Idaho’s economy; and

24 WHEREAS, on June 30, 2015 members of the Idaho Ground Water Appropriators entered into an
25 agreement with the Surface Water Coalition whereby the ground water users agreed to reduce their
26 consumptive use from the ESPA by 240,000 acre-feet annually and take other actions, and

27 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 138
28 supporting this agreement; and

29 WHEREAS, the State Water Plan includes a goal to accomplish managed recharge in the ESPA
30 averaging 250,000 acre-feet annually; and

31 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 136
32 directing the IWRB to develop the capacity to achieve 250,000 acre-feet of annual average managed
33 recharge to the ESPA by December 31, 2024; and

34 WHEREAS, in 2018 the cities on the ESPA entered into an agreement with the Surface Water
35 Coalition and the Idaho Ground Water Appropriators whereby the cities agreed to enhance the ESPA by
36 an average of 7,650 acre-feet annually; and

37 WHEREAS, the 2019 Idaho Legislature passed and approved House Concurrent Resolution 10
38 supporting this agreement; and

39 WHEREAS, the ground water use reduction and managed recharge are together designed to
40 stabilize and then recover the ESPA; and

41 WHEREAS, a 2016 study commissioned by the IWRB predicts the growing Treasure Valley
42 population could result in an increase in Domestic, Commercial, Municipal, and Industrial water-demand
43 ranging from 109,000 to 188,000 acre-feet per year by the year 2065 ; and

44 WHEREAS, the IWRB approved development of the Treasure Valley Ground Water Model in
45 partnership with the U.S. Geological Survey to support future monitoring of ground water conditions,
46 water use, and administration of ground water and surface water rights, and approved entering into an
47 agreement with the U.S. Bureau of Reclamation to complete the Boise River Storage Feasibility Study to
48 provide additional water supply through new surface water storage, and

49 WHEREAS, conjunctive administration water delivery calls have been made in the Big and Little
50 Wood River Basins against junior-priority upstream ground water uses; and

51 WHEREAS, the Mountain Home aquifer is being over-drafted by about 30,000 acre-feet annually;

52 WHEREAS, the deep aquifer in the Palouse Basin has been declining for decades despite
53 aggressive conservation measures; and

54 WHEREAS, the Department of Water Resources recently enacted Ground Water Management
55 Areas in the Malad Valley Aquifer and the Lewiston Plateau Aquifer in response to declining ground water
56 levels in those aquifers; and

57 WHEREAS, ground water levels in many aquifers are inadequate to sustain a supply of water for
58 surface and ground water irrigation, hydropower, municipal, industrial, and other uses, the curtailment
59 of which would cause severe economic harm to Idaho’s economy; and

60 WHEREAS, the 2016 Idaho Legislature passed and approved Senate Concurrent Resolution 137
61 which recognized that stabilizing and enhancing aquifer levels is in the public interest, and directs the
62 IWRB to take actions in aquifers across the state to stabilize and enhance aquifer levels thereby
63 maintaining water supply for consumptive and non-consumptive uses and minimizing harm to Idaho’s
64 economy arising from water supply shortages; and

65 WHEREAS, on May 12, 2023 the IWRB Finance Committee recommended the approval of a Fiscal
66 Year 2024 Budget for the use of available funds in the Secondary Aquifer Fund for statewide water
67 sustainability and aquifer stabilization purposes; and

68 NOW THEREFORE BE IT RESOLVED that the IWRB adopts the Fiscal Year 2024 Budget for the
69 continuously-appropriated Secondary Aquifer Planning, Management, and Implementation Fund as
70 shown in Attachment A to this resolution.

71 BE IT FURTHER RESOLVED that the budget may be adjusted if necessary based on the actual
72 amount of Cigarette Tax funds received, interest income received, amount received from the Idaho
73 National laboratory, or the actual amount of carry-over from Fiscal Year 2023.

74 BE IT FURTHER RESOLVED that expenditures for identified ESPA managed recharge operations,
75 investigations, and engineering for further ESPA managed recharge capacity development may proceed
76 with no further approvals; however, the IWRB shall be kept apprised of such expenditures.

77 BE IT FURTHER RESOLVED that expenditures for monitoring in support of the Treasure Valley and
78 Big Lost Ground Water Model, for statewide surface water and aquifer monitoring, professional assistance
79 for securing federal funding, Lemhi and Bear River water sustainability projects, and administrative
80 expenses may proceed with no further approvals; however, the IWRB shall be kept apprised of such
81 expenditures.


82 BE IT FURTHER RESOLVED that expenditures for the Operations and Maintenance costs for the
83 Cooperative Cloud Seeding Program, O&M shortages provided by the IWRB may proceed with no further
84 approvals; however, the IWRB shall be kept apprised of such expenditures. Further, it is the IWRB’s stated
85 goal that both the state and the water users financially participate with Idaho Power in the Cooperative
86 Cloud Seeding Program.

87 BE IT FURTHER RESOLVED that the IWRB may modify this budget during Fiscal Year 2024 at a
88 properly noticed meeting of the IWRB.

DATED this 19th day of May, 2023



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST 

Dean Stevenson, Secretary

ATTACHMENT A - Fiscal Year 2024 Secondary Aquifer Planning, Management and Implementation Fund Budget

FY2024 PROPOSED BUDGET FOR THE SECONDARY AQUIFER FUND

Estimated Carry-Over From FY23

General Fund (SB 1181)

HB547 funds - receipt of Cigarette Tax proceeds

Estimated interest

\$	7,010,000
\$	5,000,000
\$	5,000,000
\$	700,000
\$	17,710,000

Category		Sub-Category	FY24 Budgeted
ESPA MANAGED RECHARGE PROGRAM			
ESPA Recharge Operations	Conveyance Cost		\$3,500,000 *
	O&M (equipment, supplies, operational fees, etc.)		\$215,000
	Recharge Monitoring		\$560,000
	Regional Monitoring		\$250,000
	TOTAL		\$4,525,000
ESPA Recharge Infrastructure Projects	Budgeted Projects	Small Upper Valley Projects	\$500,000
		TOTAL	\$500,000
ESPA Recharge Investigations	Budgeted Investigations	Upper Valley site characterization & canal capacity investigations (4-5)	\$500,000
		Reserved for additional investigations and engineering	\$500,000
		TOTAL	\$1,000,000
ESPA MANAGED RECHARGE PROGRAM TOTAL			\$6,025,000
CLOUD SEEDING PROGRAM			
Operations & Maintenance	Collaborative Program	(B/W/US) 2023-2024 operations; IWRB cost share TBD, total program cost \$3.42M (\$2.3M= 2/3)	\$2,300,000
	Technology	Model and computing administration, device support	\$50,000
	TOTAL		\$2,350,000
Capital	Weather Instrumentation	Replacement/Enhancement/Upgrade, existing	\$200,000
		New Devices (statewide)	\$1,000,000 **
	Modeling	Modeling, computing, device support	\$1,000,000 **
	Infrastructure	Equipment for new basins (Bear/US shared/Lemhi/Other... for season Nov 2024-25)	\$750,000 **
		TOTAL	\$2,950,000
Research & Development	Technology	Development of instrumentation and modeling, data support	\$0
	Investigations	Analysis, assessments, cost share in research to support policy questions	\$1,000,000 **
	Reserve	Additional Program Costs	\$700,000 **
		TOTAL	\$1,700,000
CLOUD SEEDING PROGRAM TOTAL			\$7,000,000
TREASURE VALLEY			
Monitoring in support of the Treasure Valley model (annual)			\$125,000
TREASURE VALLEY TOTAL			\$125,000
RAFT RIVER			
Raft River Hydrologic Study includes BSU contractor (1 year)			\$110,000
RAFT RIVER TOTAL			\$110,000
PORTNEUF BASIN			
Portneuf Hydrologic Study (year 1 of 4) - includes drilling and USGS surface water work; same cost per year			\$250,000
PORTNEUF BASIN TOTAL			\$250,000
BEAR RIVER BASIN			
Water Sustainability			\$100,000
BEAR RIVER BASIN TOTAL			\$100,000
LEMHI BASIN			
Support of Water Sustainability Initiatives per settlement			\$250,000
LEMHI BASIN TOTAL			\$250,000
MID-SNAKE BASIN			
Mid-Snake Water Quality Monitoring - additional year of monitoring; also proposing \$50K annually after 2024			\$200,000
MID-SNAKE BASIN TOTAL			\$200,000
BIG LOST BASIN			
Monitoring in support of Big Lost model development (annual)			\$120,000
BIG LOST BASIN TOTAL			\$120,000
WOOD RIVER BASIN			
Conservation, infrastructure fund associated with settlement			\$200,000
Camas GW characterization, drilling, water levels associated with settlement (year 2 of 3)			\$300,000
WOOD RIVER BASIN TOTAL			\$500,000
STATEWIDE			
Administrative and Professional Services (includes media & federal outreach services)			\$200,000
ET Ground-Truthing Project			\$1,000,000 **
Statewide surface water and aquifer monitoring			\$400,000
STATEWIDE TOTAL			\$1,600,000
GRAND TOTAL			\$16,080,000
Reserve for Work in Other Priority Aquifers Total			\$1,630,000 **

*Since FY2019, \$3.5 M has been budgeted for ESPA Recharge Conveyance annually with the understanding that money budgeted but not spent within a fiscal year would stay committed and accrue for years when there is a large magnitude of water is available for managed recharge. Counting the current fiscal year (FY23) there is \$7.8 M reserved for future conveyance fees.

**Items that will require an additional Board resolution to authorize expenditure of funds

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF CLOUD SEEDING IN THE
STATE OF IDAHO

RESOLUTION TO AUTHORIZE FUNDING FOR
INSTRUMENTATION AND COMPUTING

1 WHEREAS, House Bill 266 (HB 266), passed and approved by the 2021 legislature, recognized
2 that cloud seeding has provided a unique and innovative opportunity to support sustainable water
3 supplies for the State of Idaho, and designated the Idaho Water Resource Board (IWRB) as the agency
4 responsible for authorization of cloud seeding programs within the State; and
5

6 WHEREAS, HB266 Directed the IWRB to conduct an assessment of cloud seeding opportunities
7 across the State of Idaho, and identify opportunities for expanding the Cloud Seeding Program (Program)
8 within the State; and
9

10 WHEREAS, Cloud seeding remains an up and coming technology and our understanding of the
11 water management strategy will require investments in data collection and modeling technologies; and
12

13 WHEREAS, the IWRB will need to consider options for the development of tools and resources to
14 support Program development and analysis.
15

16 NOW, THEREFORE BE IT RESOLVED that, the IWRB authorizes expenditures not to exceed
17 \$750,000 from the Secondary Aquifer Planning, Management, and Implementation for a project to
18 complete a Statewide Calibration of the WRF-Hydro model.
19

20 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$210,000 from
21 the Secondary Aquifer Planning, Management, and Implementation Fund for work to expand the WRF-
22 WxMod model to cover the Lemhi and Bear River Basins
23

24 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$100,000 from
25 the Secondary Aquifer Planning, Management, and Implementation Fund for the purchase of computing
26 resources to support existing and on-going IWRB projects.
27

28 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$450,000 from
29 the Secondary Aquifer Planning, Management, and Implementation Fund for the deployment of a
30 weather radar, and the collection and post processing of data.
31

32 BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$465,000 from
33 the Secondary Aquifer Planning, Management, and Implementation Fund for costs related to LES
34 modeling.
35

36 BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designee, Brian Patton,
37 Executive Officer to the IWRB, to execute the necessary agreements or contracts to complete the
38 proposed modeling effort.

DATED this 21st day of July 2023.



JEFF RAYBOULD, Chairman
Idaho Water Resource Board

ATTEST 
DEAN STEVENSON, Secretary

BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF CLOUD SEEDING IN THE
STATE OF IDAHO

RESOLUTION TO APPROVE FUNDS FOR THE
CLOUD SEEDING PROGRAM

1 WHEREAS, House Bill 266 (HB 266), passed and approved by the 2021 legislature, recognized
2 that cloud seeding has provided a unique and innovative opportunity to support sustainable water
3 supplies for the State of Idaho, and designated the Idaho Water Resource Board (IWRB) as the agency
4 responsible for authorization of cloud seeding programs within the State; and
5

6 WHEREAS, HB 266 provides the IWRB the authority to expend state funds for cloud seeding
7 programs in basins where the IWRB finds that existing water supplies are not sufficient to support existing
8 water rights, water quality, recreation, or fish and wildlife uses dependent on those water supplies; and
9

10 WHEREAS, the High Country Resource and Conservation Development (HCRCD) has continuously
11 operated a manual ground cloud seeding program in the Upper Snake River Basin since the 1990's and
12 has been funded in whole by local stakeholders in the basin since that time; and
13

14 WHEREAS, the HCRCD's operational costs have continued to rise over the years with inflation and
15 funding donations to the program are no longer enough to cover the full cost of the program. The HCRCD
16 is requesting funding support from the IWRB to support its 2023-2024 cloud seeding operations; and
17

18 WHEREAS, the IWRB approved \$700,000 in its Fiscal Year (FY) 2024 budget for program reserve
19 funding to support various potential costs related to cloud seeding program projects, program
20 development, and analysis;
21

22 WHEREAS, the IWRB has participated in a collaborative cloud seeding program (Collaborative
23 Program) to augment the high-elevation snowpack and unregulated runoff with Idaho Power Company
24 (IPC) and water users in the Boise, Wood, and Upper Snake River Basins since 2014; and
25

26 WHEREAS, the IWRB's 2017 through 2023 Fiscal Year Budget Resolutions for the Secondary
27 Aquifer Stabilization and Secondary Aquifer Planning, Management, and Implementation Fund authorized
28 expenditure of funds for operation and maintenance (O&M) costs associated with the Collaborative
29 Program and further stated the IWRB's goal that both the State and water users financially participate
30 with IPC in the Collaborative Cloud Seeding Program; and
31

32 WHEREAS, the IWRB began contributing one-third of the Collaborative Program's operations and
33 maintenance (O&M) costs in 2017, with the expectation that IPC and water users are each responsible for
34 a third of program costs; and
35

36 WHEREAS, apart from the Wood River, water users have contributed less than one-third of the annual
37 cloud seeding O&M costs per basin. For the 2019/2020 cloud seeding season, the lowest individual basin
38 contribution was approximately 17 percent. IPC historically paid a larger portion of the Program expenses by
39 covering the remainder of the total annual cost for O&M; and
40

41 WHEREAS, the IWRB directed the initiation of an analysis of the general distribution of benefits from an

enhanced snowpack and the resulting unregulated runoff generated through cloud seeding. The analysis was intended to help support the discussion of cost-share distribution among program beneficiaries; and

WHEREAS, for the 2020/2021 and 2021/2022 cloud seeding seasons, IPC reduced its contribution to one-third. As a result, the IWRB agreed to commit funding in addition to its one-third cost share to offset the shortages from the water user share while analyses were being completed; and

WHEREAS, to equalize the water user annual contributions, IWRB further agreed to offset the deficit based upon payment from the water users in the amount of 17% (2020/2021 season) and 15% (2021/2022) of the individual basin O&M costs; and

WHEREAS, in accordance with a one-year Memorandum of Agreement between the IWRB and IPC, the IWRB will pay two thirds and IPC will pay one third of the total O&M program costs for the upcoming 2023/2024 season. Therefore, the IWRB will assume payment for up to \$1,886,728, approximately two-thirds of the total cost, less the cost-share from the water users; and

WHEREAS, the IWRB, through its 2023 Fiscal Year Budget Resolution, authorized \$2,300,000 for funding O&M expenses and approved \$700,000 for program reserves; and

NOW, THEREFORE BE IT RESOLVED that the IWRB agrees to commit additional one-time funding to help offset anticipated O&M funding shortages from the water users in each basin and to equalize the percentages being paid by the water users for the 2023-2024 season.

NOW, THEREFORE BE IT RESOLVED that, the IWRB authorizes expenditure not to exceed \$1,785,398 from the Secondary Aquifer Planning, Management, and Implementation Fund for the 2023/2024 cloud seeding season, which includes one-time expenditures to offset anticipated O&M funding shortages and is contingent upon water user contributions as identified below:

	IPC	IWRB	Water Users	Total
River Basin	33%	53%	13.0%	100%
<i>Upper Snake</i>	\$ 545,914	\$ 878,922	\$ 212,906	\$ 1,637,742
<i>Boise</i>	\$ 319,500	\$ 514,001	\$ 125,000	\$ 958,501
<i>Wood</i>	\$ 243,773	\$ 392,475	\$ 95,072	\$ 731,320
	\$ 1,109,187	\$ 1,785,398	\$ 432,978	\$ 3,327,563

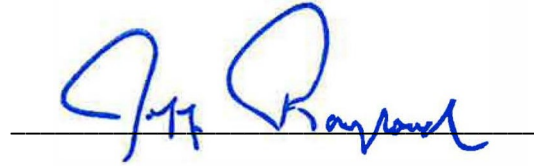
BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$200,000 for costs to support existing cloud seeding program projects, program development, and analysis from the \$700,000 approved in the FY24 the Secondary Aquifer Planning, Management, and Implementation Fund for Program Reserve.

BE IT FURTHER RESOLVED that, the IWRB authorizes expenditures not to exceed \$40,000 from the Secondary Aquifer Planning, Management, and Implementation Fund for O&M costs to support the HCRC cloud seeding program for the 2023-2024 season.


BE IT FURTHER RESOLVED that the IWRB authorizes its chairman or designee, Brian Patton,

88 Executive Officer to the IWRB, to execute the necessary agreements or contracts to complete the
89 proposed modeling effort.

DATED this 17th day of November, 2023.



Jeff Raybould, Chairman
Idaho Water Resource Board

ATTEST 

Dean Stevenson, Secretary