



# AGENDA

## IDAHO WATER RESOURCE BOARD

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### Work Session for Board Meeting No. 2-19

March 21, 2019

9:00 a.m.

Idaho Water Center

Conference Rooms 602 B, C and D

322 E. Front St.

BOISE

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**Brad Little**  
Governor

**Roger W. Chase**  
Chairman  
Pocatello  
District 4

**Jeff Raybould**  
Vice-Chairman  
St. Anthony  
At Large

**Vince Alberdi**  
Secretary  
Kimberly  
At Large

**Peter Van Der Meulen**  
Hailey  
At Large

**Albert Barker**  
Boise  
District 2

**John "Bert" Stevenson**  
Rupert  
District 3

**Dale Van Stone**  
Hope  
District 1

**Jo Ann Cole-Hansen**  
Lewiston  
At Large

1. Roll Call
2. Water Supply Update
3. Monument Ridge Ranch HOA
4. ESPA Cumulative Transfer Analysis
5. Boise River Feasibility Study
6. Priest Lake Water Management Project Update
7. Bear Lake Update
8. Flood Management Grant Update

*The Board will break for lunch at approximately 11:45 a.m.*

\*Action Item: A vote of recommendation regarding this item may be made at 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 in facilities that meet the accessibility requirements of the Americans with Disabilities Act. If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email [nikki.regent@idwr.idaho.gov](mailto:nikki.regent@idwr.idaho.gov) or by phone at (208) 287-4800.

# Memorandum

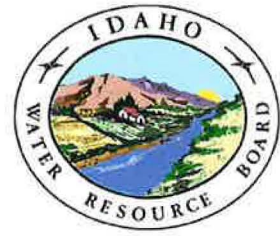
To: Idaho Water Resource Board

From: David Hoekema *MA for DH*

Date: March 13, 2019

Re: 2019 Water Supply Outlook

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I will give a presentation on the 2019 Water Supply Outlook at the upcoming IWRB work session on March 21, 2019. My presentation will include information on current snow water equivalent, reservoir contents, and the climate outlook for the upcoming irrigation season.



# 2018 Idaho Water Supply Outlook

Presented by David Hoekema

March 21, 2019

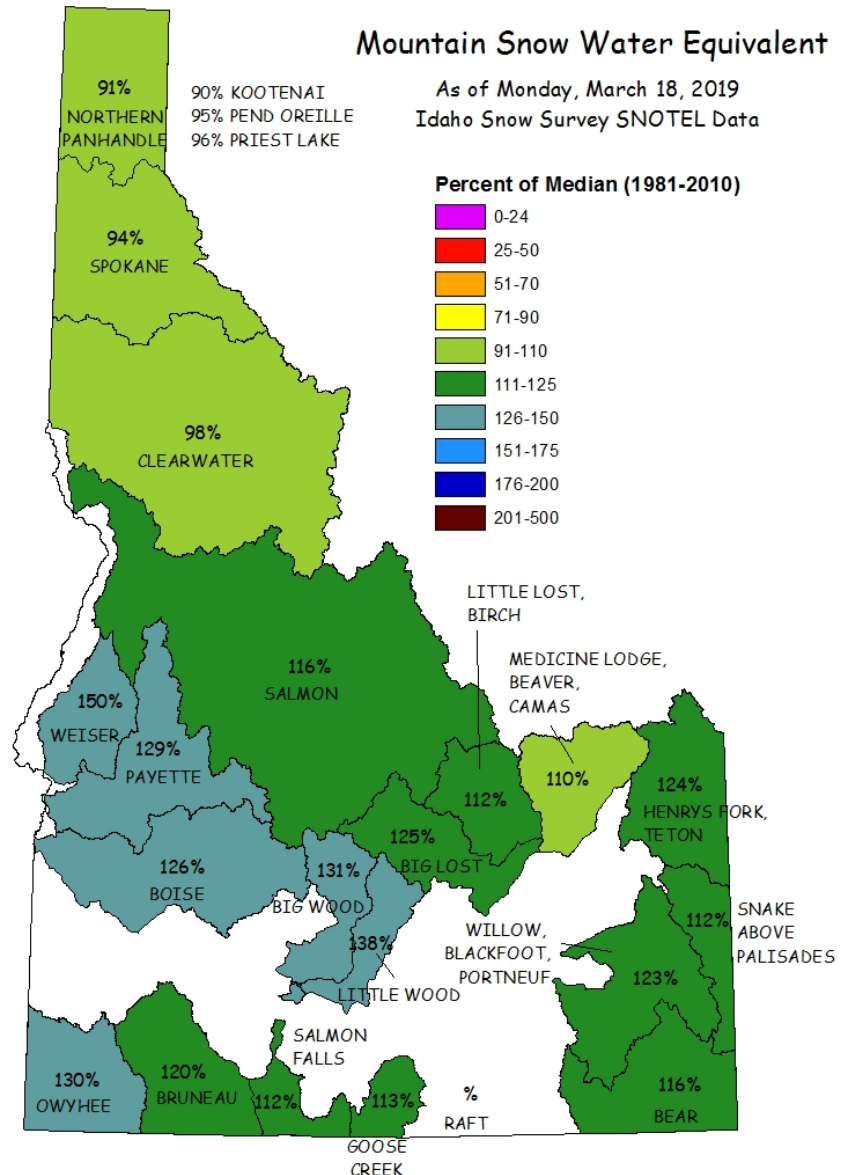
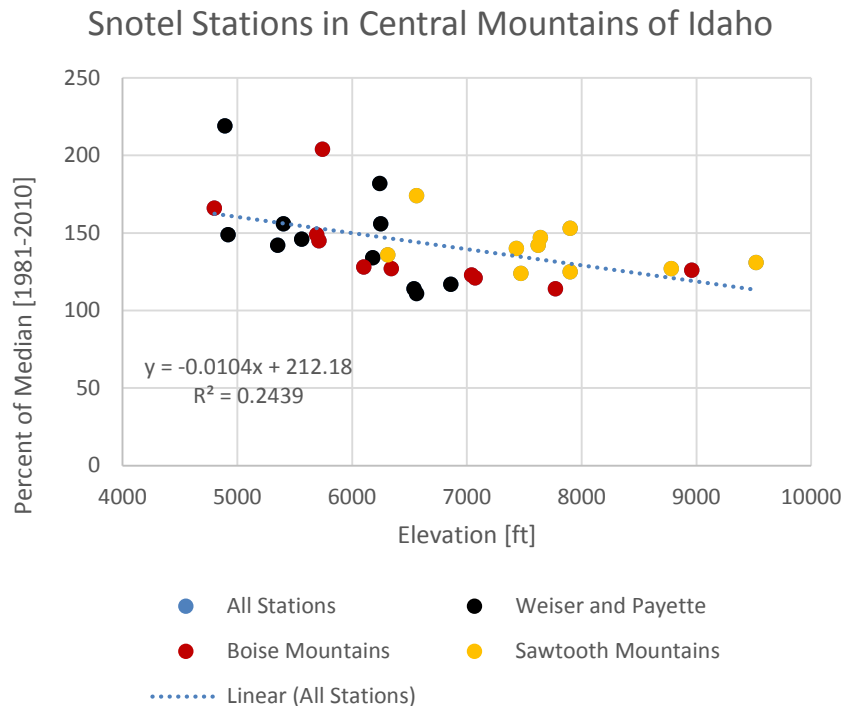






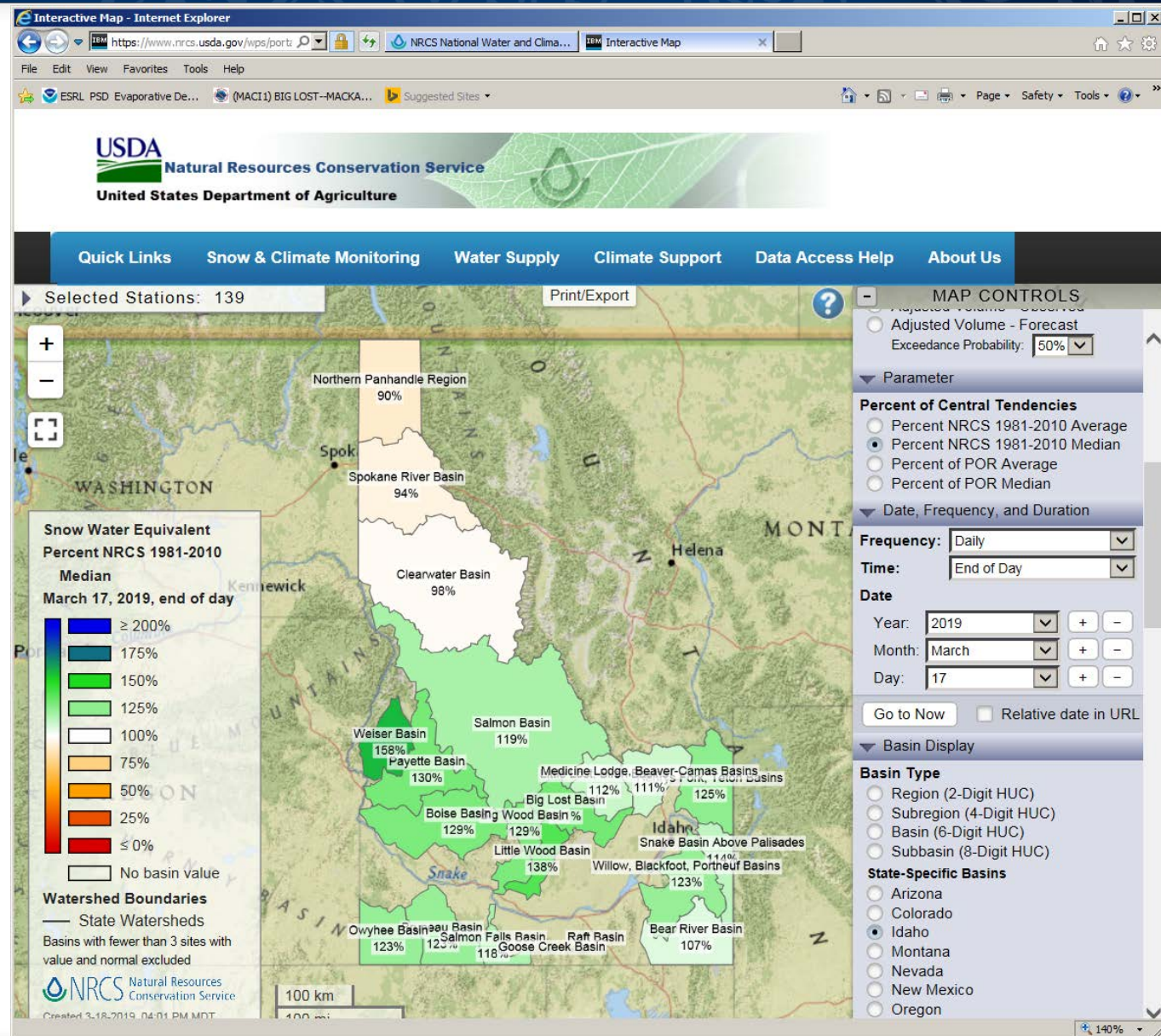
- I. Snowpack
- II. Reservoir Contents
- III. River Forecasts
- IV. Climate Outlook

## Current Snowpack 91% - 150% of median.



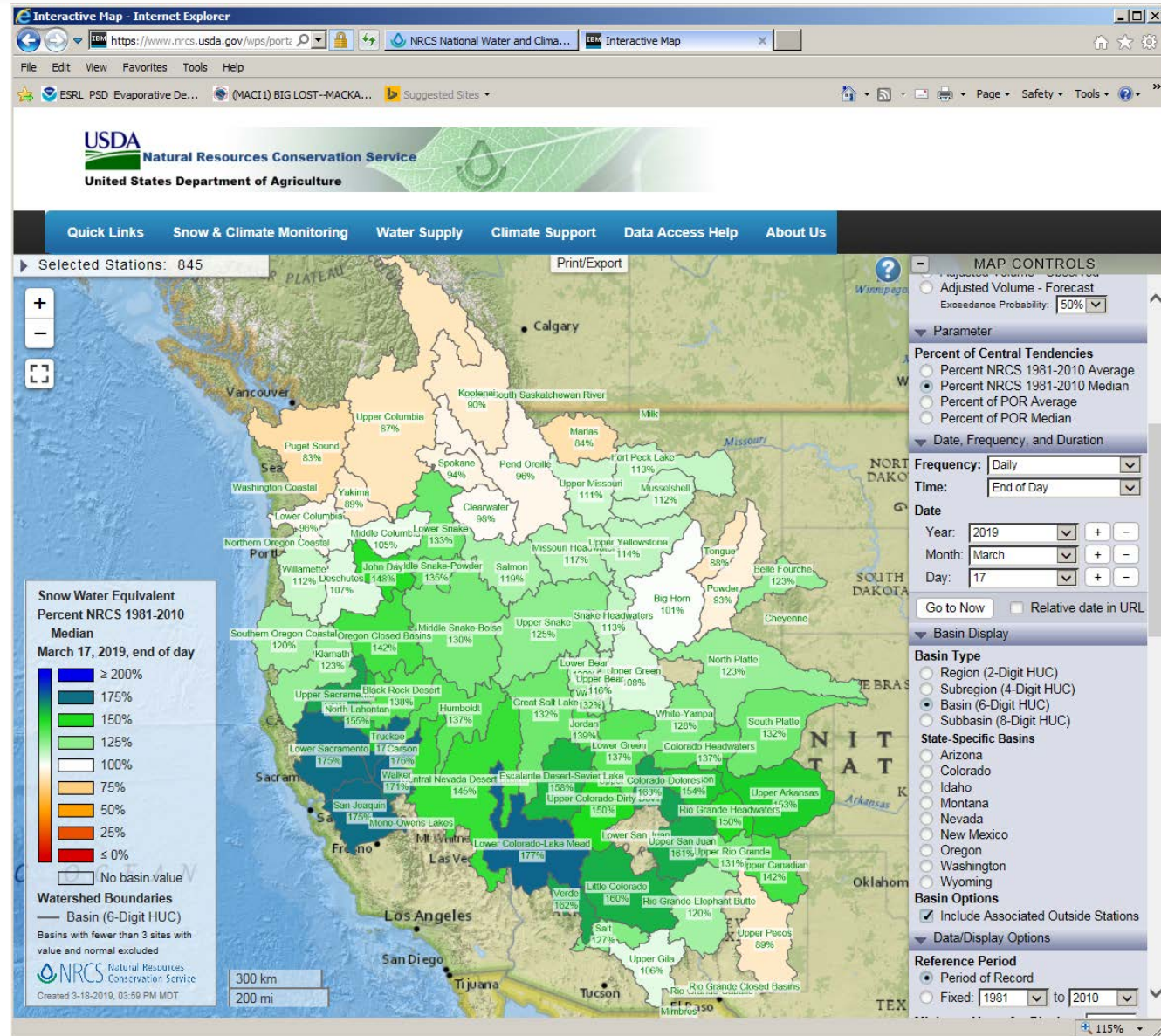


## Westwide Snowpack



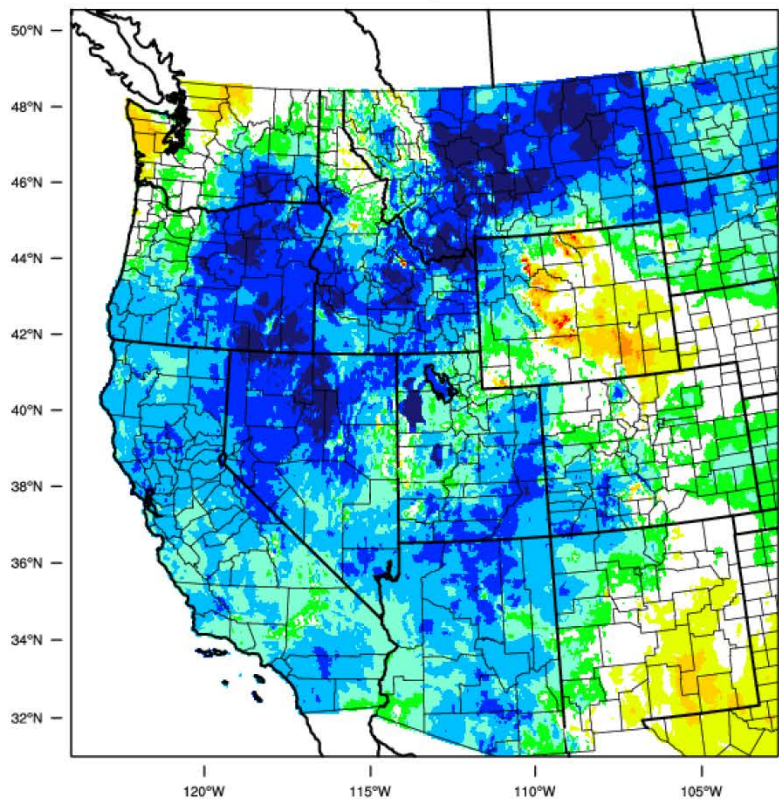


## Westwide Snowpack



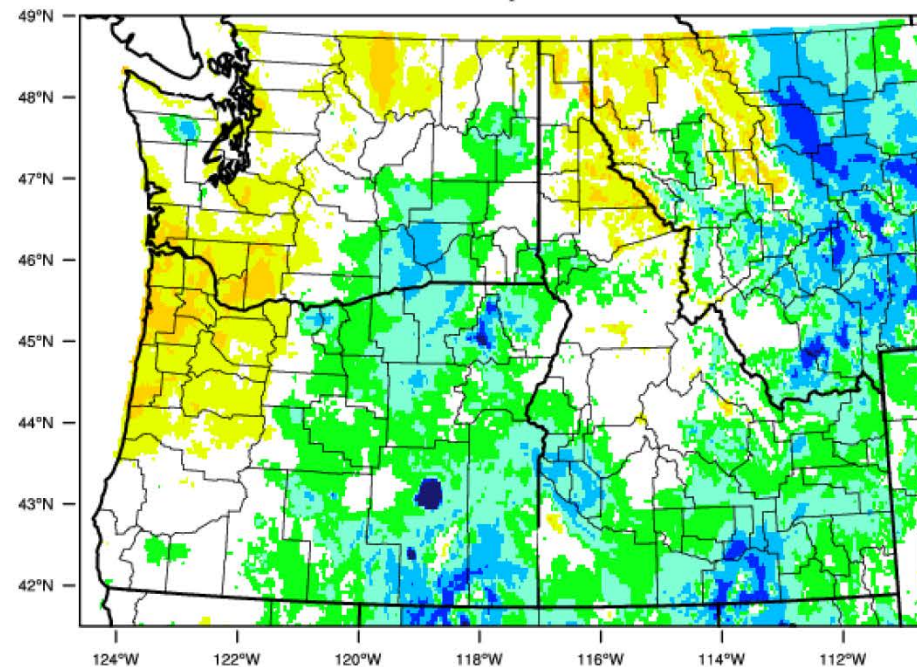


**Western United States - 1 month SPEI**  
February 2019



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 16 MAR 2019

**Pacific Northwest - 5 month SPEI**  
February 2019



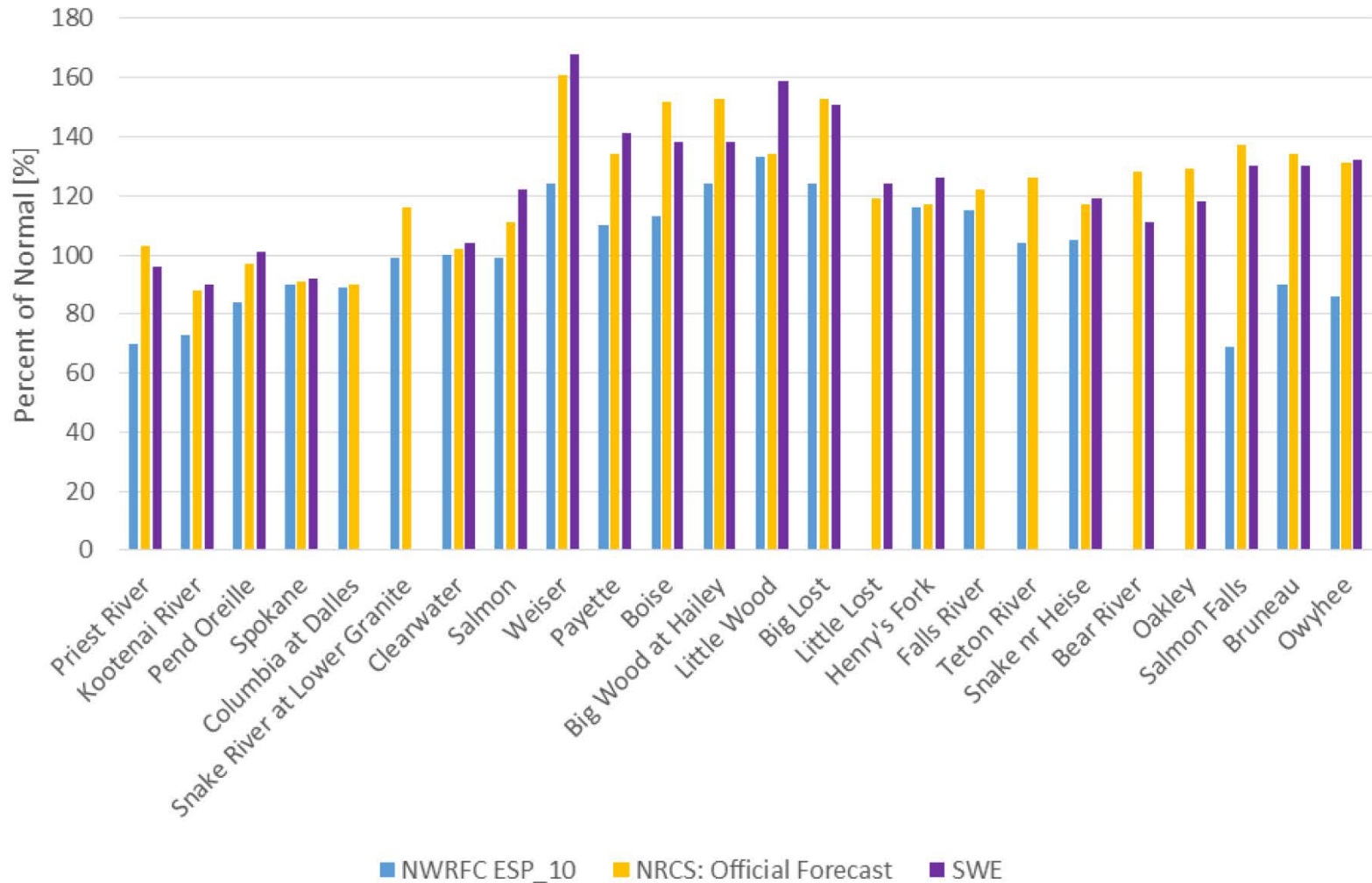
WestWide Drought Tracker - U Idaho/WRCC Data Source - PRISM (Prelim), created 16 MAR 2019



# Streamflow Forecasts



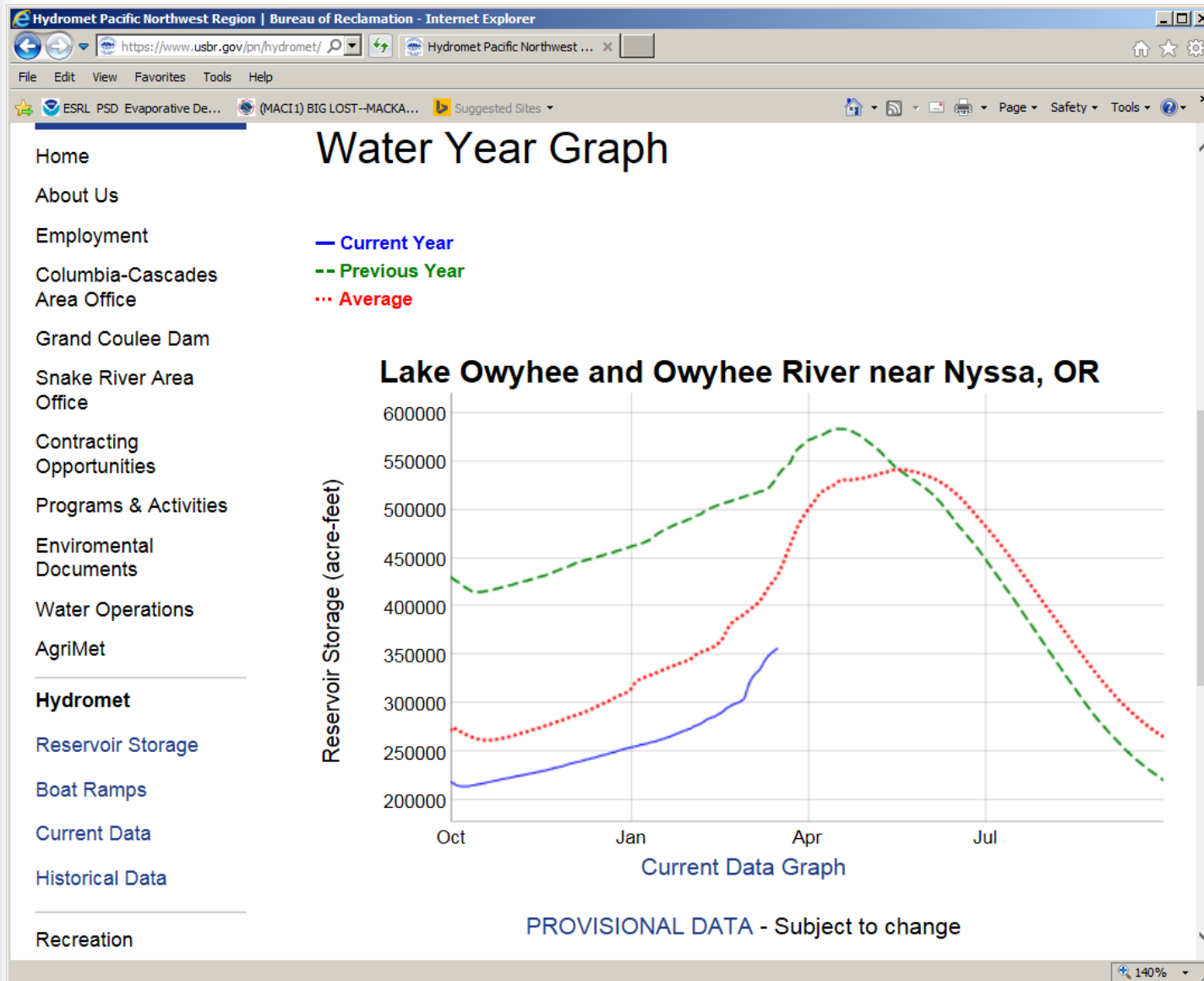
## March 1 Forecast



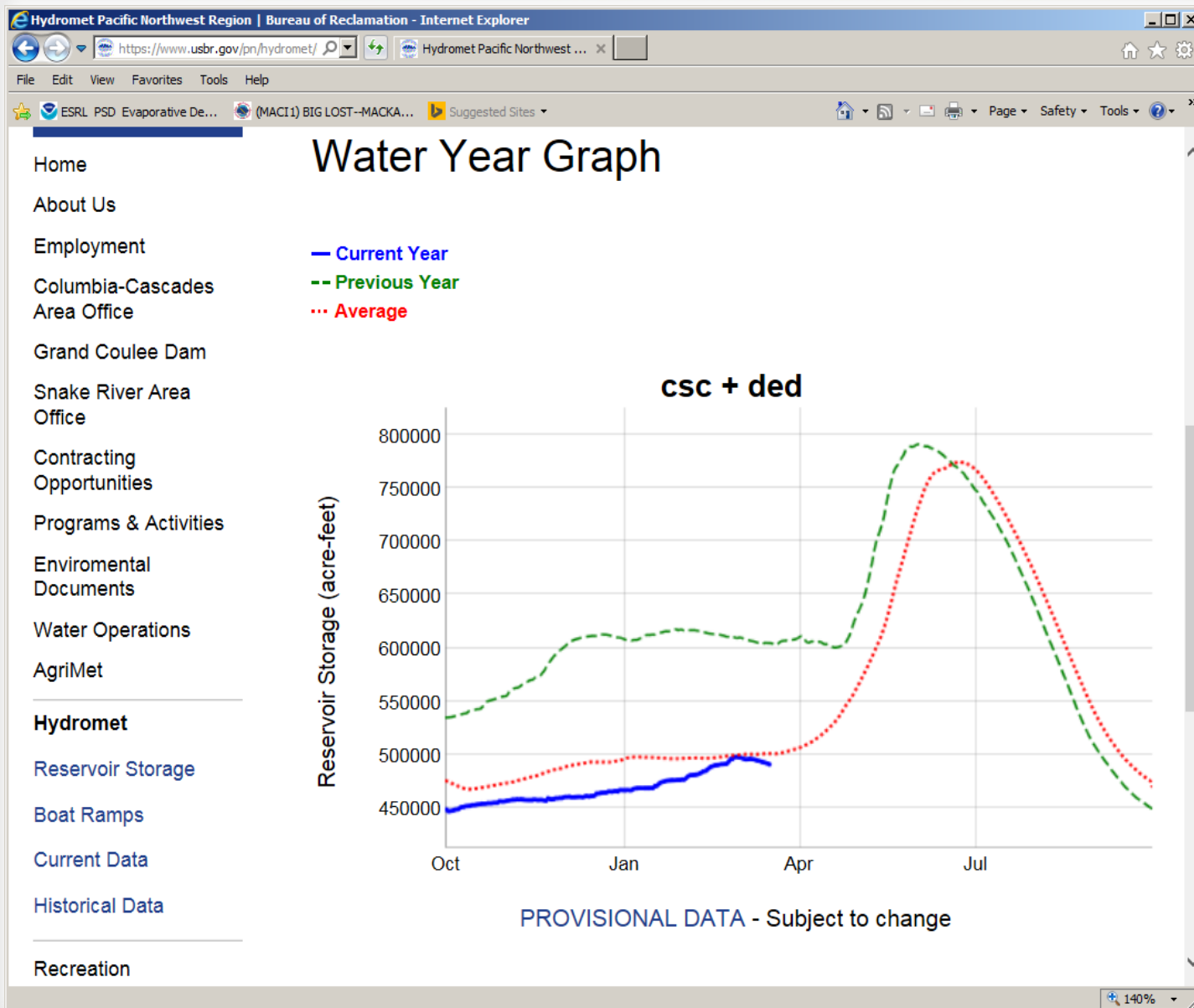


# Reservoirs

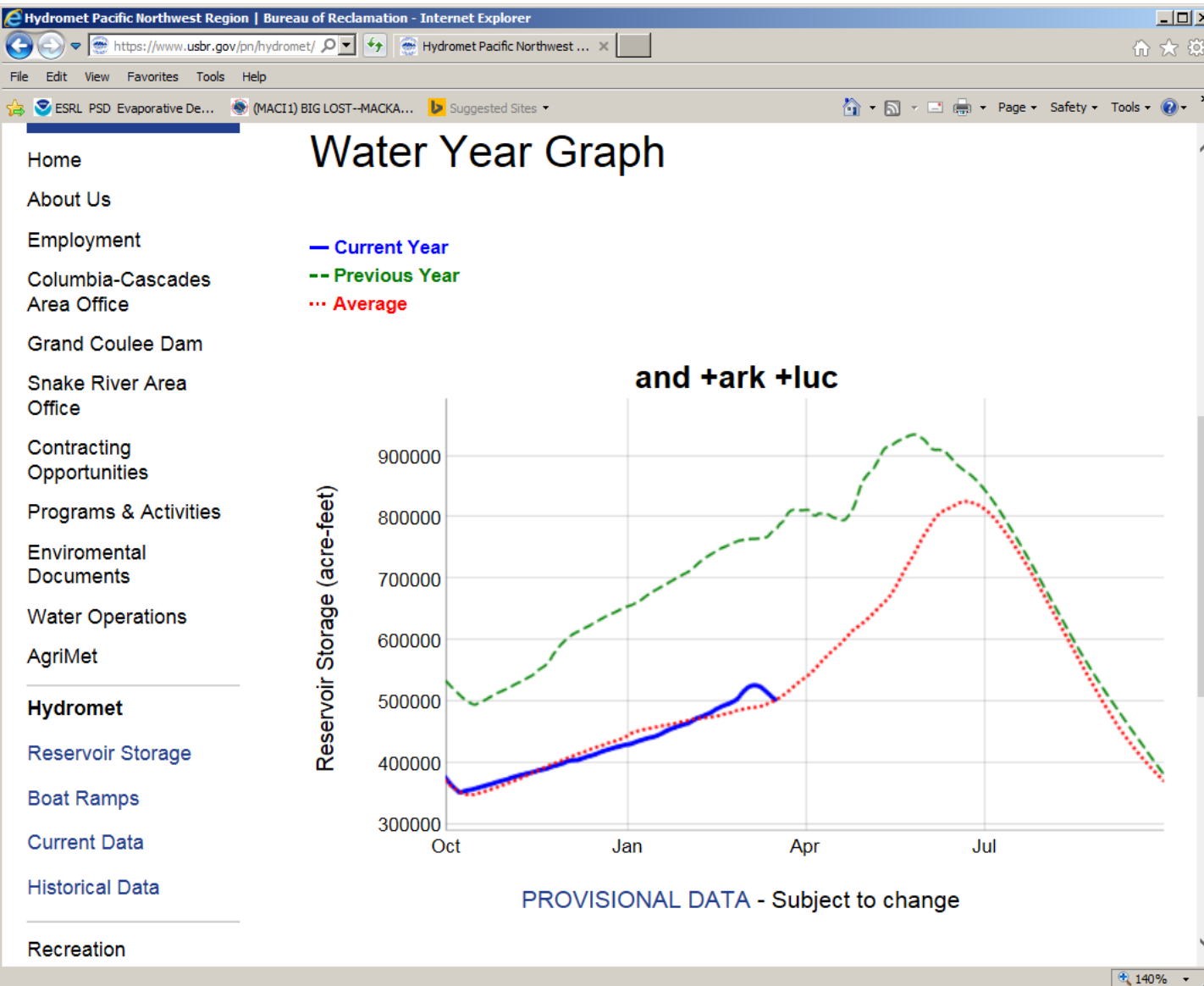






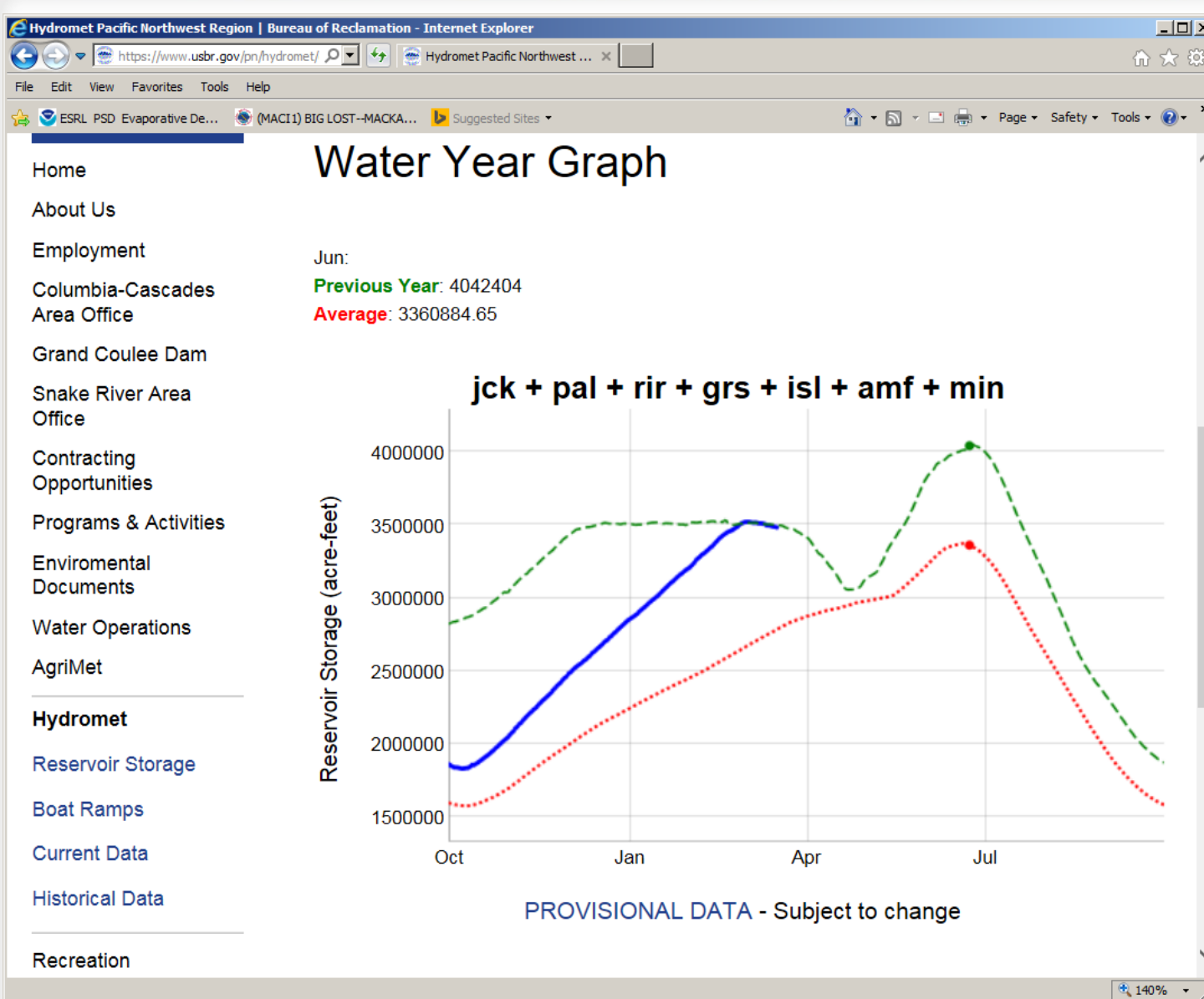


61% of Capacity



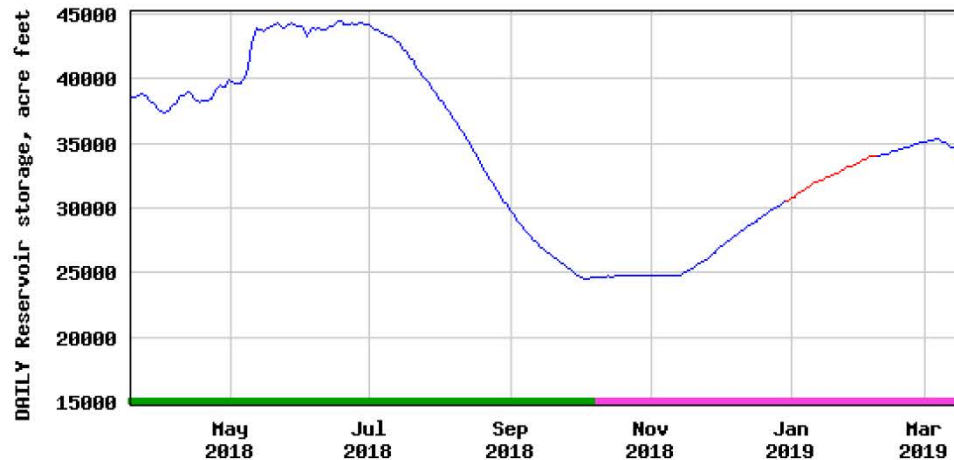
53% of Capacity





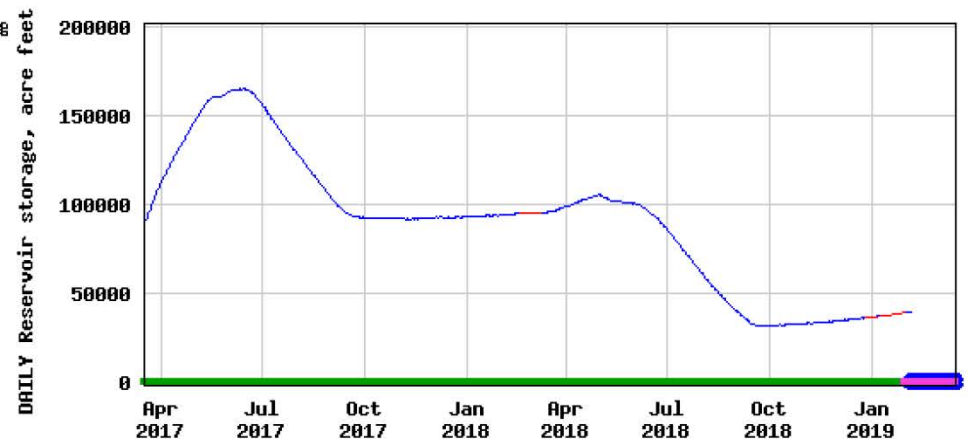
86% of Capacity

USGS 13126000 MACKAY RES NR MACKAY ID



- Daily observation at noon reservoir storage
- Estimated daily observation at noon reservoir storage
- Period of approved data
- Period of provisional data

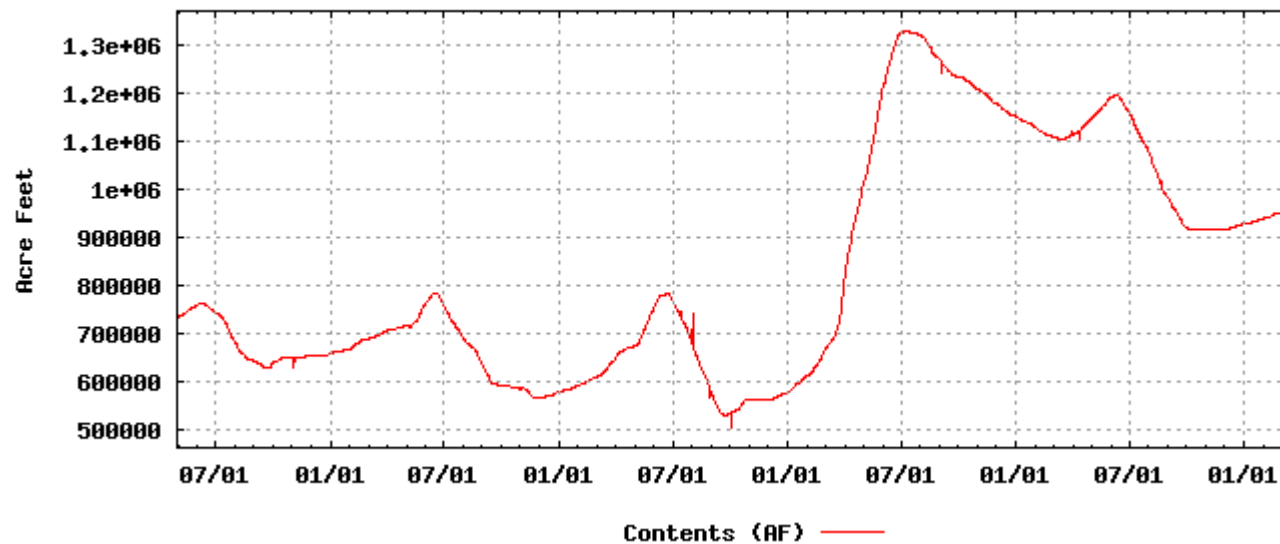
USGS 13106500 SALMON RIVER CANAL CO RES NR ROGERSON ID



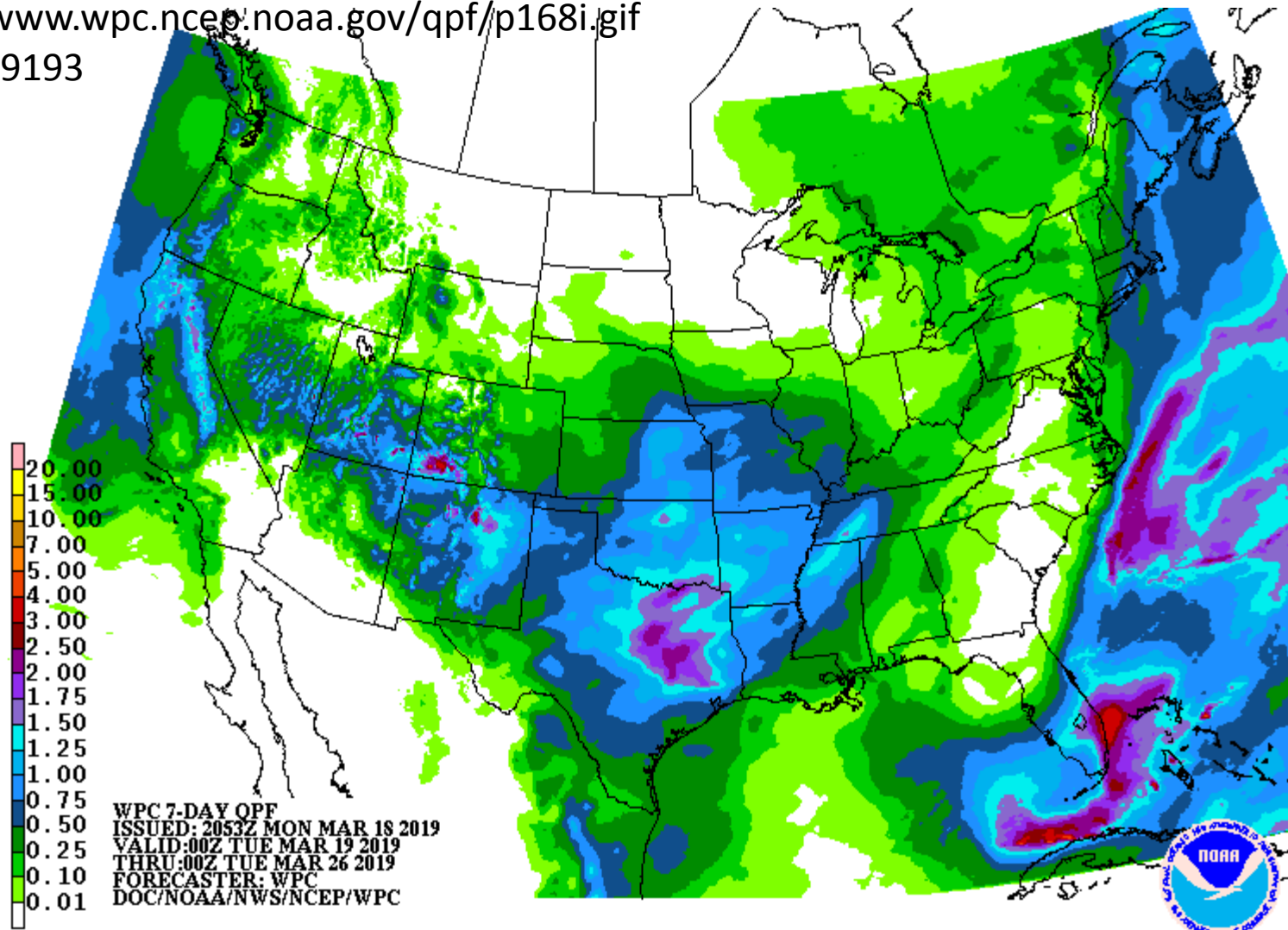
- Daily observation at noon reservoir storage
- Estimated daily observation at noon reservoir storage
- Period of approved data
- Value is affected by ice at the measurement site.
- Period of provisional data



Bear Lake



<https://www.wpc.ncep.noaa.gov/qpf/p168i.gif?1552949193>



7-day Precipitation Forecast Tuesday thru Monday



## Questions?

More Information:

[david.hoekema@idwr.idaho.gov](mailto:david.hoekema@idwr.idaho.gov)

208-287-4830

# Memorandum

To: Idaho Water Resource Board

From: Shelley Keen

Date: March 13, 2019

Re: IDWR's Review of the Cumulative Effects of Water Right Transfers with the ESPA

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In 2009 the Idaho Department of Water Resources ("IDWR") implemented its current policy for evaluating transfers of rights to use ground water in the Eastern Snake Plain Aquifer ("ESPA"). The policy is intended to prevent injury to holders of rights to divert and use water from the Snake River and from springs tributary to the Snake River. According to the policy, IDWR authorizes point-of-diversion transfers within the ESPA only when certain threshold criteria are met, or if the transfer applicant supplies mitigation. Recently IDWR used the current version of the ESPA model to review 6½ years of ESPA transfers (426 total) to estimate the cumulative effects of those transfers on the Snake River. IDWR's presentation describes the policy, the cumulative review process, and the results of the review.



# Memorandum



To: Idaho Water Resource Board  
From: Cynthia Bridge Clark, Emily Skoro  
Date: March 5, 2019  
Re: Boise River Storage Feasibility Study

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**REQUIRED ACTION:** No action is required at this time.

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## **Background**

The Idaho Water Resource Board (IWRB) is partnering with the Bureau of Reclamation (Reclamation) to complete a feasibility study of new surface water storage options on the Boise River (study). The study includes an evaluation of small raises of the three large dams on the Boise River system: Anderson Ranch, Arrowrock, and Lucky Peak Dams. In March 2018, the Memorandum of Agreement was signed which formalized the working relationship between the IWRB and Reclamation. The total study cost is estimated to be \$6 million. The IWRB, as the non-federal sponsor, has committed to funding fifty percent of the study costs up to \$3 million.

Reclamation initiated the feasibility study under the authority of Public Law 111-11, which authorized the study of projects to address water shortages in the Boise River system and was set to sunset in March 2019. In 2018, Public Law 111-11 was extended by 10 years to March 30, 2029. The Water Infrastructure Improvements for the Nation Act (WIIN Act, P.L. 114-322) provides a second authority for the study, and potentially design and construction. The act states that continuing authority only applies to projects determined to be feasible before January 1, 2021. Additionally, projects can only receive Federal funds under the WIIN Act if recommended by the Secretary of the Interior and designated by name in Federal appropriations legislation. Reclamation received \$750,000 of WIIN Act funding in 2018 for the Study. Reclamation is continuing to pursue additional funding under the WIIN Act and through standard budget processes.

After initial technical review of the three dams, Reclamation concluded that an increase in reservoir storage at Arrowrock and Lucky Peak Dams is significantly more complicated than a raise of Anderson Ranch Dam due to the physical and procedural complexities of each facility. Given the WIIN Act requirement to determine project feasibility before January 1, 2021, Reclamation recommended that study efforts should be focused on the raise of Anderson Ranch Dam at this time. On July 27, 2018, the IWRB passed a resolution authorizing Reclamation to focus current study analyses on a raise of Anderson Ranch Dam, with the understanding that the feasibility of small raises at Arrowrock and Lucky Peak Dams could be evaluated further in future analyses.

## **Status**

- As of March 2019, the IWRB has issued \$2.5M. Reclamation will speak to the status of the Federal funding at the March IWRB meeting.
- Completed and upcoming project activities include:
  - Completion of LIDAR data and orthoimagery collection by contractors.

- Development of land, structure, infrastructure, and real estate impact assessment (“Rim Analysis”) by contractors.
- Technical analyses of Anderson Ranch Dam, including geotechnical exploration and the preparation of a feasibility-level design, cost estimate, and risk assessment are ongoing. Analyses in 2019 will be performed by Reclamation’s Technical Service Center in Denver, Colorado.
- A public open house was held on November 8, 2018, which included a short presentation to introduce the study and information stations with subject matter experts to address questions from the public. Approximately 70 members of the public attended.
- A Value Planning (VP) Study was conducted on December 3-7, 2018, with a final report in February. Reclamation requires VP studies on projects with estimated construction costs exceeding \$10M. The VP Study provided a review of technical considerations related the raise of Anderson Ranch Dam. Other topics such as project access, traffic routing, spillway modification, and construction phasing were also reviewed and documented. The findings of the VP study will be considered in the project design and environmental compliance analyses.
- In late December 2018, Reclamation awarded a contract to complete the feasibility study and environmental compliance efforts. Reclamation is planning a schedule for public engagement in order to initiate the formal NEPA process in June.
- Reclamation is starting to plan for the June public scoping meetings, and is planning events in the cities of Boise, Mountain Home, and Pine.
- Reclamation is reviewing options for allocation of new potential storage based on available policy guidance and will coordinate with the IWRB and water users in the coming months.
- Roland Springer, the Area Manager of Reclamation’s Snake River Area Office, will provide an update on the progress of the feasibility study at the March IWRB meeting.

#### **Current Schedule**

- November 2017 - January 2019: Perform initial screening of the three potential dam raise alternatives and develop a Plan of Study
- July 27, 2018 - IWRB passed a resolution authorizing Reclamation to focus current study analyses on a raise of the Anderson Ranch Dam.
- August 28, 2018 - Legislative Infrastructure Tour was held to discuss large water infrastructure projects in Idaho with representatives from Idaho’s Congressional delegation.
- November 8, 2018 - Boise River Basin Feasibility Study Open House
- December 3-7, 2018 – Boise River Basin Feasibility Study Value Planning Study
- February 2019 – Receive draft Rim Analysis Report from Contractor (Anderson Ranch)
- April 2019: Receive final Rim Analysis Report from Contractor (all three reservoirs)
- July 2018 – Dec 2019: Perform feasibility analysis of alternatives (structural, non-structural, and no-action)
- June 2019 – June 2020: Perform formal environmental compliance activities
- July 2020 – August 2020: Undergo approval process of recommended alternative



# Memorandum



To: Idaho Water Resource Board (IWRB)  
From: Neeley Miller, Planning & Projects Bureau  
Date: March 11, 2019  
Re: Priest Lake Water Management Project Update

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**ACTION: No action needed at this time**

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## Background

- As a result of limited water supply and drought conditions in northern Idaho in 2015 and 2016 it was difficult to maintain required pool levels and downstream flow in the Priest River during the recreational season.
- Priest Lake Water Management Study (Phase 1) was completed in February 2018. The study included the following recommendations:
  - Temporarily raising the surface level of Priest Lake 3 to 6 inches during the recreational season of dry years and integrating real-time streamflow data to allow more flexibility
  - Outlet structure improvements to the scour apron, modifying and strengthening gates, and electrical gate operation
  - Replace the current existing porous breakwater with an impervious sediment retention feature and dredging a portion of the Thorofare channel
- The Phase 1 estimated cost to implement recommendations is approximately \$5 million (\$2.4 million for outlet structure improvements, and \$2.4 - \$2.6 million for Thorofare improvements).
- On January 26, 2018 the IWRB passed a resolution asking the Idaho Legislature to repurpose the remaining balance of \$2,419,600 in a 2005 CREP appropriation that had not been utilized and direct it towards the Priest Lake Water Management Project. In that resolution, the IWRB also indicated that it expects local contributions of at least \$200,000 for the project.
- House Bill 677 passed and approved by the 2018 Legislature included 1) a \$2.4 million transfer from the General Fund to the Revolving Development Account, and 2) \$2,419,600 of funding in the Revolving Development redirected from the Conservation Reserve Enhancement Program (CREP) to be used for the Priest Lake Water Management Project. On March 27, 2018 Governor Otter signed the budget bill (FY 2019) which includes the funds for the Priest Lake Project.
- On May 18, 2018 the Board adopted a resolution authorizing \$600,000 for Engineering and Design work associated with Phase 2 of the Priest Lake Water Management Project.

- Funding Status: \$2.4 million + \$2.4196 + \$200K local contribution -\$600K for preliminary engineering design & permitting = \$4,419,600 remaining for Final Engineering Design, Bidding Solicitation, Construction and Construction Management.
- In July 2018 Mott MacDonald submitted to IWRB staff the final Priest Lake Water Management Project Phase 2 – Preliminary Engineering Design & Permitting Scope of Work.
- July 2018 – executed contract with Mott MacDonald for Phase 2: Preliminary Engineering Design & Regulatory Permitting

## **Phase 2 Schedule**

### **Task 1 Data Collection – July to August, 2018**

- Kickoff Meeting
- Existing & New Data Collection.
- Site Assessments – Dam, Wetlands, Erosion areas on lake, Thorofare.
- Design Recommendations – Refinement of recommendations from last phase and any new information gathered that could affect the scope of preliminary design.
- Basis of Design – Refinement and update from last phase.
- Steering Committee Meeting #1 – August

### **Task 2 Preliminary Engineering Design – September to March, 2019**

- Regulator Agency & Stakeholder Engagement.
- Steering Committee Meeting #2 – September.
- Public Meeting/Open House – September 27.
- Permitting Level Plans – Draft December; Final March/April 2019.
- Updated Construction Cost Estimates – Draft December; Final April 2019.
- Dam Improvements & Dam Safety Report Submittal. Includes discipline reports (Geotechnical, Structural, Hydraulic, etc.) – Draft December; Final late March 2019.

### **Task 3 Regulatory Permitting – August 2018 to September 2019**

- Consultation with Agencies regarding proposed concepts – September 2018.
- Permit Application Documents – Final March/April 2019.
- Permit Application Submission – March/April 2019.

### **Task 4 Public/Stakeholder Involvement – Ongoing**

- Steering Committee Meeting #1 – August
- Steering Committee Meeting #2 – September 2018 (telecon).
- Public Open House –Thursday September 27, 2018 (in person, Priest Lake).
- Steering Committee Meeting #3 – October 2018.
- Steering Committee Meeting #4 – November 2018.
- Steering Committee Meeting #5 – April 2019.

## **Phase 3 Schedule**

**Final Engineering Design – TBD Based on status off regulatory permitting process. Likely starting fall 2019.**

Final engineering and design and services during bidding and construction are not included in the Phase 2 scope of work, but will likely include the following elements:

- Sealed plans, specifications, cost estimates.
- Final computation package for dam safety review.

### **Bidding and Construction**

- Bidding is anticipated in 2020, with construction anticipated in the fall/winter of 2020/2021.



# Memorandum



To: Idaho Water Resource Board  
From: Neeley Miller, Planning & Projects Bureau  
Date: March 12, 2019  
Re: Status Update on Flood Management Grants

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## **No Action Required**

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### **Background**

House Bill 712 passed and approved by the 2018 Legislature included a FY 2018 transfer of \$1,000,000 from the General Fund to the Water Management Fund in the Department of Water Resources budget. This funding was intended for a grant program administered by the Idaho Water Resource Board to provide competitive grants for flood-damaged stream channel repair, stream channel improvement, flood risk reduction, or flood prevention projects.

Staff received a total of eighteen (18) applications during the two rounds of funding. The applications and sponsor's grant documents were evaluated, scored, and ranked according to criteria adopted by Board. The Board authorized funding for fourteen (14) projects throughout Idaho for a total of \$1,000,000.

See attached summaries for the status of each flood grant award.

### **Legislative Appropriation for Next Year**

On March 12, 2019 the Legislature's Joint Finance Appropriations Committee (JFAC) passed a trailing appropriation for the Water Board that included \$1 million for flood management grants (\$800K) and water quality monitoring in the Mid-Snake reach of the Snake River (\$200K).

# **FLOOD MANAGEMENT GRANT PROGRAM**

## **PROJECT SUMMARIES/STATUS**

### **1. FLOOD CONTROL DISTRICT NO.9 – Bypass Canal and Bannon Flood Mitigation Project**

The IWRB approved a flood management grant of \$90,000 to Flood Control District No.9 for design and construction of the \$191,604 Bypass Canal and Bannon Ditch Flood Mitigation project on the Big Wood River. The project tasks include construction of instream treatments to prevent future flood damage, and stream channel erosion and alignment repairs. Construction commenced in late December, 2018, and the stream channel repairs and improvements were completed on January 25, 2019.

### **2. BLAINE COUNTY – Della View Subdivision Flood Mitigation Project**

The IWRB approved a flood management grant of \$121,331 to Blaine County for design and construction of the \$306,334 Big Wood River and Della View Flood Reduction project. The Big Wood River improvement, activation of a side channel, was completed in November, 2018. The construction of the Phase 1 drainage improvements in the Della View Subdivision was delayed due to winter weather, and was rescheduled to begin in April or May. Phase 2 construction of the drainage improvements, which requires substantial coordination with utilities that will be impacted by the improvements, will begin after the spring runoff/flooding has receded. All construction is scheduled to be completed in 2019.

### **3. CASSIA COUNTY – Raft River Channel Project**

The IWRB approved a flood management grant of \$42,336 to Cassia County for design and construction of the \$84,672 Reid Springs Road Bridge and Raft River Channel Flood Mitigation project, which consists of debris removal, stream channel repairs and improvements, installation of rip rap, and planting of willows for bank stabilization. The initial project goal was to implement the stream channel repairs and improvements for approximately 700-feet of the Raft River channel, but due to extensive permitting requirements, the footprint of the project was reduced to 70-feet upstream of the bridge. The stream channel repairs and improvements, including rip rap installation at the upstream portion of the bridge abutments, were completed in early December, 2018.

### **4. FLOOD CONTROL DISTRICT NO.10 – New Dry Creek Diversion Structure Project**

The IWRB approved a flood management grant of \$78,400.00 to Flood Control District No.10 for design and construction of the \$156,800 New Dry Creek Flood Mitigation project. The project tasks include river bank repairs and armoring where severe bank erosion has occurred on the

New Dry Creek diversion structure and Boise Greenbelt. Construction commenced in late February, and in-river repairs and improvements were completed on March 4. Repairs to the Boise Greenbelt will be completed by the end of March.

**5. FLOOD CONTROL DISTRICT NO.10 – Duck Alley Pit Capture Project**

The IWRB approved a flood management grant of \$153,550 to Flood Control District No.10 for design and construction of the \$307,100 Duck Alley Pit Capture project. The project tasks include river bank reconstruction and stream channel improvements to redirect the river base flows back to the historic Boise River channel. Construction commenced in late February, and the in-water repairs and improvements were completed on March 4. Rehabilitation of a temporary road and stock pile areas will commence once the site has dried out.

**6. FLOOD CONTROL DISTRICT NO.10 – Porter and Mulchay Project**

The IWRB approved a flood management grant of \$38,808 to Flood Control District No.10 for the \$77,616 Porter and Mulchay Gravel Removal project. Approximately 4,300 cubic yards of gravel will be removed to reduce erosion to river banks and ranch lands, reduce out of bank flooding, and impacts to the operation of an irrigation diversion structure. Construction was completed in late January, 2019.

**7. CLEARWATER SOIL AND WATER CONSERVATION DISTRICT – Quartz Creek Project**

The IWRB approved a flood management grant of \$155,220 to the Clearwater Soil & Water Conservation District for design and construction of the \$310,439 Quartz Creek Watershed project. The primary tasks for the flood reduction project was to replace sixteen (16) undersized and unsuitable drainage culverts to reduce the risk of flood damage to a major secondary road and to provide stability to the roadway which is heavily used for industrial and recreation uses. Construction and installation of the proposed sixteen (16) drainage culverts commenced in September, and the project was completed by the end of December.

**8. FLOOD CONTROL DISTRICT NO.10 – Leighton and Wells Project**

The IWRB approved a flood management grant of \$22,000.00 to Flood Control District No.10 for the \$44,000 Leighton and Wells Gravel Removal project. Approximately 14,500 cubic yards of gravel will be removed to reduce erosion to the river bank and ranch lands, and to minimize out of bank flooding during high flows in the Boise River. Construction is scheduled to be completed by March 15, 2019.



**9. FLOOD CONTROL DISTRICT NO.11 – Tree and Debris Removal Project**

The IWRB approved a flood management grant of \$57,675.00 to Flood Control District No.11 for the \$115,350 tree and debris removal project on the Boise River. The project will help to prevent out of bank flows, which result in flooding of agricultural land and river bank erosion, and impacts to the operation of irrigation diversion structures. However, the Joint Application for Permits between the US Army Corps of Engineers and the Idaho Department of Water Resources (404 Permit) was not approved due to a protest filed by the United States Fish & Wildlife Service. The USFWS has determined that the trees and debris in the river are fish habitat, and removal will impact fish. SPF Water Engineering and the District are coordinating with the USFWS on addressing their concerns. Due to this project delay, it is anticipated that work will not commence until fall.

**10. TWIN LAKES CREEK FLOOD CONTROL DISTRICT NO.17 – Flood Control and Stream Flow Monitoring Equipment Project**

The IWRB approved a flood management grant of \$7,750.00 to Twin Lakes Rathdrum Creek Flood Control District No.17 for design and installation of the Flood Control and Stream Flow Monitoring project. The equipment will provide accurate monitoring of lake levels, stream flows, and gate positions. Upon soliciting bids, the total project costs increased to \$23,823.00. The equipment installation commenced in December and was completed on January 7, 2019.

**11. TWIN FALLS CANAL COMPANY – East Perrine Pond/Wetland Project**

The IWRB approved a flood management grant of \$85,340.00 to the Twin Falls Canal Company for design and construction of the \$591,800 East Perrine Pond/Wetland Flood Reduction project. A 24-acre flood mitigation pond and wetland facility was constructed to reduce the magnitude and duration of flooding of agricultural land and subdivisions downstream of the East Perrine Coulee. It is estimated that the project will remove 3,000 tons of sediment and associated nutrients annually prior to discharging to the Snake River. The removal of the sediments and nutrients will assist in meeting Clean Water Act TMDL water quality targets in the Snake River. Except for wetland plantings, which will be completed during the spring of 2019, the project was substantially completed in December, 2018.

**12. CITY OF POCATELLO – Pocatello Creek Bank Stabilization and Flow Control Project**

The IWRB approved a flood management grant of \$26,105.00 to the City of Pocatello for design and construction of the Pocatello Creek Bank Stabilization and Flow Control project. The goal of the project is to implement streambank stabilization and flow control measures along a 300-feet of Pocatello Creek to reduce flow velocities and down cutting of the banks. The City has completed the initial survey work and has hired a consulting firm to complete the design of the

channel improvements in January. The design of the improvements for the project are scheduled to be completed on March 31, 2019. During April and May, the City will perform a No-Rise analysis and the required permitting. Construction of the streambank and channel improvements are scheduled to commence in June and be completed by the end of July, 2019.

**13. NEZ PERCE SOIL & WATER CONSERVATION DISTRICT – Bear Creek Flood Reduction Project**

The IWRB approved a flood management grant of \$115,460.00 to the Nez Perce Soil & Water Conservation District for design and construction of the \$556,681 Bear Creek Flood Reduction project. The goal of the project is to implement stream channel improvements and repairs to a 500-foot section of Bear Creek to reduce annual flooding. Proposed improvements include the installation of two rock weirs to stabilize the channel, and to replace an undersized bridge across Bear Creek to prevent damage to the public road and bridge, which provides the only access to State Highway 12 for the residents of the community of Peck. Survey work was completed in February, and current project activity is primarily environmental permitting, right-of-way coordination, bridge design, and public meetings. Construction work is scheduled to commence in July and completed in November, 2019.

**14. RIVERSIDE VILLAGE HOA – Boise River Diversion Project**

The IWRB approved a flood management grant of \$6,025.00 to the Riverside Village HOA for the design and construction of the Boise River Diversion project. The goal of the project is to implement stream channel stabilization measures and repair a diversion structure to maintain water right diversion flows to the Riverside Village development and the City of Garden City during the low river flows in late summer, fall, and winter. The project was completed in early December, 2018. The Eco blocks installed to increase the water level at the diversion structure will be removed each year at the beginning of the irrigation season.