The Colorado River Commission of Nevada (Commission) meeting was held at 1:30 p.m. on Tuesday, June 8, 2021 at the Grant Sawyer office building, 555 E. Washington Ave, Room 1100, Las Vegas, Nevada, 89101.

COMMISSIONERS IN ATTENDANCE

ChairwomanPuoy K. PremsrirutVice ChairwomanKara J. KelleyCommissionerDan H. Stewart

COMMISSIONERS PRESENT VIA VIDEOCONFERENCE

Commissioner Justin Jones
Commissioner Allen J. Puliz

COMMISSIONERS NOT PRESENT

Commissioner Marilyn Kirkpatrick
Commissioner Cody Winterton

DEPUTY ATTORNEY GENERAL

Special Counsel, Attorney General Christine Guerci

COMMISSION STAFF IN ATTENDANCE

Executive Director Eric Witkoski Senior Assistant Director Sara Price

Chief of Finance and Administration Douglas N. Beatty

Assistant Director, Hydropower
Assistant Director, Engineering and Operations
Assistant Director, Energy Information Systems
Hydropower Program Manager

Gail Bates
Robert Reese
Kaleb Hall
Craig Pyper

Natural Resource Analyst Warren Turkett, Ph.D.

Senior Energy Accountant
System Coordinator
Office Manager
Administrative Assistant IV
Administrative Assistant IV

Gail L. Benton
Chris Smith
Gina L. Goodman
Kathryn Aguilar
Kira Bakke

OTHERS PRESENT; REPRESENTING

College of Southern Nevada

Mesa Associates, Inc.

Overton Power District No. 5

Self

Tina Dobbs

Reggie Headrick

Kelvin Walker

Gary Brownfield

MeLisa Garcia

Gary Brodt

COLORADO RIVER COMMISSION OF NEVADA MEETING OF JUNE 8, 2021

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The Colorado River Commission of Nevada (Commission) meeting was called to order by Chairwoman Premsrirut at 1:34 pm.

A. Conformance to Open Meeting Law.

Executive Director Eric Witkoski confirmed that the meeting was posted in compliance with the Open Meeting Law.

B. Comments from the public. (No action may be taken on a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action will be taken.)

Chairwoman Premsrirut asked if there were any comments from the public. There were none.

C. For Possible Action: Approval of minutes of the April 13, 2021 meeting.

Commissioner Stewart moved for approval of the minutes. The motion was seconded by Vice Chairwoman Kelley and approved by unanimous vote.

D. For Possible Action: Consideration of and possible action to approve a four-year Contract No. ES-21-01 in the amount of \$860,000 for Engineering Services between Mesa Associates, Inc., and the Colorado River Commission of Nevada (Commission).

Assistant Director, Engineering and Operations Robert Reese presented.

A. Background on Operations

The Colorado River Commission of Nevada (Commission) owns, operates, and maintains seventeen high voltage substations staffed by seven Commission employees in the Commission's Power Delivery Project Group (PDP). In addition, the Commission is responsible for the operation and maintenance of ten substations that are owned by the Southern Nevada Water Authority (SNWA) and three owned by the Clark County Water Reclamation District. The Commission's staff includes an in-house electrical engineer to provide engineering support for the system. As a result, Commission Staff is capable of performing many routine engineering support functions. However, the Commission occasionally requires further engineering support for its operation and maintenance functions and to assist with the preparation of designs of ongoing and future projects for the agencies it serves. The areas of expertise required periodically include civil engineering for foundation, grading and structural design; communication engineering for assistance with the Commission's fiber optic and microwave radio communication system; and system studies. On a less frequent basis, the Commission requires expertise in environmental engineering and structural engineering for minor projects and problems.

B. Request for Proposals for Engineering Firms

Commission Staff began the process of recruiting qualified engineering firms through a Request for Proposals (RFP) process in March of 2021. The RFP for engineering services was posted in the Las Vegas Review Journal, Reno Gazette Journal, on the Commission website and on NevadaEPro beginning on March 1, 2021. In addition to being posted, it was also sent to 38 vendors directly via email. Deadline for submissions ended at 1:59 p.m. on April 26, 2021. The Commission received a total of eight submissions. The evaluation period took place from May 3, 2021 – May 7, 2021.

C. Agreement for Consideration

The agreement for Commission's consideration is with the firm Mesa Associates, Inc. The firm is a multi-discipline engineering company with expertise in all areas that may be required by the Commission's operation and maintenance function and for construction projects. The agreement proposed will retain the services of Mesa Associates, Inc. for an initial contract term of four years, anticipated to begin subject to Board of Examiners approval. Work under the agreement will be authorized by Commission Staff, as needed through the development and execution of written task authorizations. The total combined value of task authorizations under this agreement shall not exceed \$860,000 over the term of the contract.

Staff recommended approval of a four-year contract in the amount of \$860,000 for Engineering Services between Mesa Associates, Inc., and the Commission and to authorize the Executive Director to sign it on behalf of the Commission.

Commissioner Stewart asked about the differences between this contract and the contract to be discussed in Item E.

Mr. Reese explained that there was an advantage to securing contracts with multiple vendors in order to facilitate various requests and projects from the Commission's own contractors in a timely and efficient manner. The contracts are "enabling contracts" and require the Commission's contractors to request support, without which the contract remains dormant until expiration.

Chairwoman Premsrirut asked whether the scope of work delineated in Exhibit A of Contract No. ES-21-01 would encompass all the operations and maintenance needs of the Commission's substations.

Mr. Reese confirmed the scope of work ensures the contract will cover any anticipated needs of the Commission and their contractors.

Chairwoman Premsrirut congratulated Mr. Reese and Staff for a thorough Requests for Proposal (RFP) process.

Vice Chairwoman Kelley moved for approval of a four-year Contract No. ES-21-01 in the amount of \$860,000 for Engineering Services between Mesa Associates, Inc., and the Colorado River Commission of Nevada. The motion was seconded by Commissioner Puliz and approved by unanimous vote.

E. For Possible Action: Consideration of and possible action to approve a four-year Contract No. ES-21-02 in the amount of \$860,000 for Engineering Services between Quanta Utility Engineering Services, Inc., and the Colorado River Commission of Nevada (Commission).

At the request of Staff, Item E was withdrawn.

F. For Information Only. Status Update on 2021 Legislative Session and related Budget.

Executive Director Eric Witkoski updated the Commission on Senate Bill 448, enrolled and delivered to the Governor on June 2, 2021. The bill relates to renewable energy infrastructure, the passage of which created the Regional Transmission Coordination Task Force, of which the Commission will have a representative.

The meeting of the Board of Examiners (BOE) took place the morning of June 8, 2021, during which the contract between the Commission and Moss Adams, Inc. was approved.

G. For Information Only: Update on pending legal matters, including Federal Energy Regulatory Commission or Public Utilities Commission of Nevada filings.

Special Counsel Christine Guerci presented an update on pending legal matters involving the Commission.

On April 28, 2021, the Ninth Circuit issued its opinion on *Navajo Nation vs. U.S. Department of the Interior*. The court reversed the dismissal of the Navajo Nation's breach of trust claim and remanded for further proceedings. It did not decide whether the Nation's reserved water rights extend to the mainstream of the Colorado River or any other specific water sources, but the opinion includes assertions about the federal defendants' trust responsibility and the Navajo Reservation.

The federal defendants and the interveners have until July 29, 2021 to decide if they desire to file a motion for rehearing.

H. For Information Only: Status update from Staff on the hydrological conditions, drought, and climate of the Colorado River Basin, Nevada's consumptive use of Colorado River water, the drought contingency plan, impacts on hydropower generation, electrical construction activities and other developments on the Colorado River.

Dr. Warren Turkett, Natural Resource Analyst, gave a status update on the hydrological conditions, drought, and climate of the Colorado River Basin, Nevada's consumptive use of Colorado River water, and other developments on the Colorado River.

- Summary of Lake Powell, Lake Mead, and Nevada Water Supply
- Precipitation and Temperature
- Upper Basin Snowpack Accumulation
- Water Use in Southern Nevada
- Unregulated Inflow, Current and Projected Reservoir Status
- Overview of Cloud Seeding in the Colorado River Basin

A copy of the report is attached and made a part of the minutes. (See Attachment A.)

Commissioner Puliz thanked Dr. Turkett for the explanation of cloud seeding in the Colorado River Basin.

Commissioner Stewart asked about long-term weather forecasting for precipitation to mitigate the current drought, particularly the cyclical El Niño Southern Oscillation in the Pacific Ocean.

Dr. Turkett answered that there were no real ways to forecast into a distant future besides utilizing existing historical data to extrapolate trends. Additionally, he explained that El Niño/La Niña largely effect the California coast rather than the Upper Colorado River Basin.

Senior Assistant Director Sara Price answered that although the hydrology of the region is not trending positively, collaboration between the Colorado River Basin states has resulted in viable results that are likely to continue into the future.

Commissioner Stewart thanked Dr. Turkett and Ms. Price for their answers.

Vice Chairwoman Kelley stressed the need for government entities to educate the public on water conservation and related environmental concerns, asking if Staff could provide, on the official Commission website, a guide to both the terms and concepts typically used when discussing water conservation, a basic overview of drought conditions in Southern Nevada and the Colorado River Basin, as well as references to other entities who are also involved in water conservation and related issues.

Chairwoman Premsrirut agreed with Vice Chairwoman Kelley, adding that the Commission should be proactive in spreading the knowledge of water conservation, current usage levels, and any forecasted changes to water issues involving the region.

I. Comments from the public. (No action may be taken on a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action may be taken.)

Chairwoman Premsrirut asked if there were any other comments or questions from the from the public.

Mr. Gary Brodt, a member of the public, commented that the Southern Nevada Water Authority's (SNWA) regulations have assisted in the level of water conservation in the Southern Nevada area. Mr. Brodt then asked whether the Commission had any authority with the U.S. Department of the Interior for management of the Colorado River.

Senior Assistant Director Sara Price stated that the Colorado River system is heavily regulated, and the Commission is involved with and bound by different contracts with the Department of the Interior and the Secretary of the Interior, but works closely with them on issues related to the Colorado River.

J. Comments and questions from the Commission members.

Chairwoman Premsrirut asked if there were any other comments or questions from the from Commission members. There were none.

K. Selection of the next possible meeting date.

The next meeting is tentatively scheduled for 1:30 p.m. on Tuesday, July 13, 2021 at the Clark County Government Center, Commission Chambers, 500 South Grand Central Parkway, Las Vegas, Nevada.

_. Adjournment.

The meeting was adjourned at 2:23 pm.

Eric Witkoski, Executive Director

APPROVED:

Puoy K. Premsrirut, Chairwoman



Colorado River Commission of Nevada

Hydrology and Water Use Update

Warren Turkett

June 8, 2021



1



Summary

Lake Powell

- Water Year 2021¹ is one of the driest in recorded history.
- Unregulated inflow for water year 2021 is forecasted at 31% of average.
- Upper Basin cumulative precipitation is 73% of the seasonal average.

Lake Mead

- Lake Mead is forecasted to decrease about 8 feet in elevation by the end of calendar year 2021.
- Reclamation models are indicating that in August there will be a federally declared shortage under the 2007 Guidelines for the Lower Basin.

Nevada Water Supply

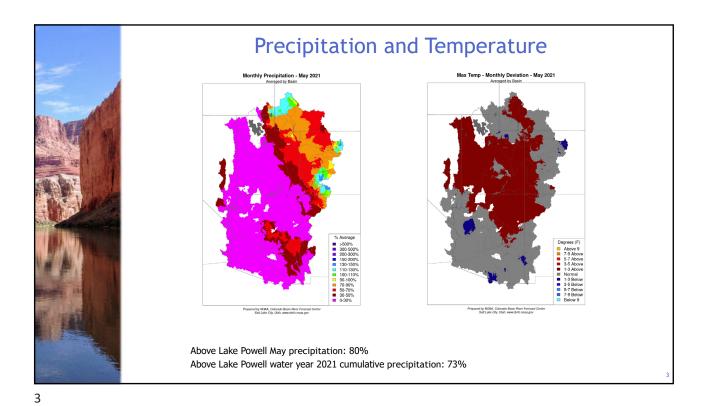
- Southern Nevada has about 9 years of water supply banked. ²
- In 2020, Southern Nevada used 44,432 af less than our annual allocation.

Storage	Elevation (f)	% Capacity	Change since last year
Lake Mead	1,073.5	36%	-17.7 ft
Lake Powell	3,560.6	34%	-44.6 ft

Data retrieved June 1, 2021

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Water year is defined as October through September.
 Based on 2020 consumptive use and storage volumes through 2020.



Colorado Basin River Forecast Center Lake Powell 104 Group 06/04/2021 Percent Median: 49% (1.0 / 2.0) Percent Seasonal Median: 69% (1.0 / 16.1) 18 3 Day Melt Rate: -0.1 in/day Created 06/04.02:59 GMT NOAA/CBRFC, 2021 114 Water year 2021 (green line) peaked at 17 104 15 93 83% of the seasonal average 83 73 62 52 41 31 21 10 11-30 04-01 **Date** 10-31 12-31 01-30 03-01 05-01 05-31 07-01 07-31 09-30



Unregulated Inflow, Current and Projected **Reservoir Status**

	Projected unregulated inflow to Lake Pow	ell Acre-Feet	% Average
	Water Year 2021	3,367,000	31%
	April thru July 2021	1,800,000	25%

Reservoir	Current Elevation	Current Storage Acre-Feet	Current % Capacity	Projected Elevation on 1/1/2022 ¹
Lake Mead	1,073.5	9,480,000	36%	1,065.8
Lake Powell	3,560.6	8,366,000	34%	3,536.7



2007 Interim Guidelines, Minute 323, Lower Basin Drought Contingency Plan, and Binational Water Scarcity Contingency Plan Total Volumes (kaf)

Lake Mead Elevation (feet msl)	2007 Interim Guidelines Shortages		Minute 323 Delivery Reductions	Total Combined Reductions	DCP Water Savings Scarcity Contributions Contingency Plan Savings		US:	2007 In D co: (Min	terim G CP Cor ute 323 ater Sca	umes by Countidelines Shoutibutions) Delivery Redirety Continguings)	ortages + luctions +	Total Combined Volumes		
(icet iiisi)	ΑZ	NV	Mexico	Lower Basin States + Mexico	AZ	NV	CA	Mexico	AZ Total	NV Total	CA Total	Lower Basin States Total	Mexico Total	Lower Basin States + Mexico
1,090 - 1,075	0	0	0	0	192	8	0	41	192	8	0	200	41	241
1,075 - 1,050	320	13	50	383	192	8	0	30	512	21	0	533	80	613
1,050 - 1,045	400	17	70	487	192	8	0	34	592	25	0	617	104	721
1,045 - 1,040	400	17	70	487	240	10	200	76	640	27	200	867	146	1,013
1,040 - 1,035	400	17	70	487	240	10	250	84	640	27	250	917	154	1,071
1,035 - 1,030	400	17	70	487	240	10	300	92	640	27	300	967	162	1,129
1,030 - 1,025	400	17	70	487	240	10	350	101	640	27	350	1,017	171	1,188
<1,025	480	20	125	625	240	10	350	150	720	30	350	1,100	275	1,375

The Secretary of the Interior will take affirmative actions to implement programs designed to create or conserve 100,000 acre-ft per year or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the lower basin. All actions taken by the United States shall be subject to applicable law, including availability of appropriations.

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Data retrieved June 1, 2021

Based on Reclamation's May 2020 24 Month Study Most Probable Inflow.



Water Use In Southern Nevada

Southern Nevada Water Use

2020 Actual Use in Acre-Feet

Nevada Annual Allocation	300,000
Diversion	478,969
Return Flows	223,401
Consumptive Use	255,568
Unused Allocation Available for Banking	44,432 (15%)

Southern Nevada Water Use	Diversions	Return Flows	Consumptive Use	
January - April 2021	132,634	75,894	56,740	

Banked Water (through end of 2020)	Acre-Feet
Ground Water Recharge in So. Nevada	357,643
Banked in Lake Mead	865,741
Banked in California and Arizona	944,071
Total	2,167,455

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Cloud Seeding in Colorado River Basin

Cloud seeding is a form of weather modification that introduces silver iodide into storm clouds to assist in ice particle formation that can cause precipitation. Cloud seeding can be performed with land-based generators or airplanes. Cloud seeding requires certain conditions to be effective, including storm clouds, wind direction, and temperature.



- In 2015, a study in Colorado by the National Center for Atmospheric Research determined that cloud seeding conducted under the right conditions can increase snowfall by 5-15%. The authors calculated an average increase of about 60,000 acre-feet in the targeted area.
- The Wyoming Water Development Office conducted a 10 year study beginning in 2004 to evaluate the effectiveness of cloud seeding in Wyoming. The results indicated that cloud seeding is a viable technology with positive seeding effects of 10-15%.
- Colorado River Basin Weather Modification Agreement In 2018, the Central Arizona Water
 Conservation District, Southern Nevada Water Authority, Six Agency Committee of California,
 and New Mexico Interstate Stream Commission entered into a funding agreement for weather
 modification. The agreement runs through 2026 and provides for the agencies to share in
 expenses of up to 1.5 million annually for weather modification programs in Utah, Wyoming, and
 Colorado.

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