

December 7, 2021

Meeting Information

Zoom address: <https://us06web.zoom.us/j/89130558037>

Call-in Number: (669) 900-9128

Meeting ID: 891 3055 8037

NOTE: THE BOARD ROOM IS OPEN. SOCIAL DISTANCING REQUIREMENTS CAN BE MET WITH BOARD AND PUBLIC ATTENDANCE. OUR OFFICE COMPLIES WITH ALL SOCIAL DISTANCING AND FACIAL COVERING REQUIREMENTS; HOWEVER, WE RESPECT EMPLOYEE AND VISITOR CONFIDENTIALITY AND CHOICE.

PER EMERGENCY DIRECTIVE 047 ALL EMPLOYEES AND VISITORS ARE REQUIRED TO WEAR A MASK WHILE IN THE BUILDING.

**WALKER RIVER IRRIGATION DISTRICT
BOARD OF DIRECTORS REGULAR MEETING
YERINGTON, NEVADA**

**December 7, 2021
Tuesday 10:00 A.M.**

**NOTICE OF MEETING
of the Board of Directors of Walker River Irrigation District**

The Board of Directors of the Walker River Irrigation District will conduct a public meeting on Tuesday, December 7, 2021, beginning at 10:00 A.M. in the Board meeting room at 410 N. Main Street, Yerington, Nevada.

THIS MEETING WILL BE HELD IN PERSON AND HOSTED VIA ZOOM.

**PERSONS ATTENDING IN PERSON ARE ASKED TO WEAR A FACE MASK
IF NOT FULLY VACCINATED**

The public may attend in person and provide public comment and also comment on Agenda items by emailing comments to jessica@wrid.us. Comments received by email prior to 4:00 P.M. on December 6, 2021, will be entered into the record. Comments may also be submitted during the meeting and by participating in the Joint Zoom Meeting using the information below.

The District appreciates the public's patience and understanding during this difficult and challenging time.

**Topic: October Board Meeting
Time: December 7, 2021 10:00 AM Pacific Time (US and Canada)**

Join Zoom Meeting
<https://us06web.zoom.us/j/89130558037>

Meeting ID: 891 3055 8037
One tap mobile
+17207072699,,89130558037# US (Denver)
+12532158782,,89130558037# US (Tacoma)

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Meeting ID: 891 3055 8037

Find your local number: <https://us06web.zoom.us/j/8441111111>

NOTICE

Agenda items may be taken out of order.

The Board may remove or delay discussion relating to an agenda item at any time.

The Board may combine two or more agenda items for consideration.

The meeting may be continued as deemed necessary.

Requests for supporting material provided to members of the Board, if any, can be provided electronically by a request to jessica@wrid.us. Such supporting material, if any, will be posted on the Walker River Irrigation District website.

OFFICIAL AGENDA

Action may be taken only on those items denoted **“For possible action.”**

1. Public Comment

Any member of the public may address and ask questions of the Board relating to any matter within the Board’s jurisdiction. Public comments need not be related to any item on the Agenda. Action will not be taken on any matter raised by the public until the matter is specifically included on an agenda as an item upon which action will be taken.

2. Roll Call and Determination of Quorum

3. Consideration of Minutes of the November 8, 2021, Regular meeting. **(For possible action)**

4. Water Master’s report

5. Staff Reports including, but not limited to, those items listed:

- A. Treasurer’s Report
- B. Consideration of Bills and Payroll for payment. **(For possible action)**
- C. Manager’s Report
- D. Legal Counsel’s Report
- E. Storage Water Leasing Program Update

6. Update from the Division of Water Resources regarding groundwater pumping and upcoming fieldwork schedules.
7. Update by Walker Basin Conservancy on activities related to the Walker Basin Restoration Program, including Acquisitions and Conservation and Stewardship Activities.
8. Presentation and Consideration of FY 2020-2021 Audit Report by Sciarani & Co. **(For possible action)**
9. Director Comments
10. Public Comment

Any member of the public may address and ask questions of the Board relating to any matter within the Board's jurisdiction. Public comments need not be related to any item on the Agenda. Action will not be taken on any matter raised by the public until the matter is specifically included on an agenda as an item upon which action will be taken.

11. Adjournment

**WALKER RIVER IRRIGATION DISTRICT
BOARD OF DIRECTORS**

Notice is hereby given that on December 7, 2021, the Board of Directors of the Walker River Irrigation District will conduct a meeting. The meeting will commence at 10:00 A.M. at the Walker River Irrigation District Office at 410 N. Main Street, Yerington, Nevada. The Official Agenda for that meeting is attached hereto and made a part of this Notice.

Date: November 30, 2021

ROBERT C. BRYAN
Manager

I, Robert C. Bryan, WRID Manager, do hereby certify that the foregoing Agenda was duly posted on November 30, 2021, at the following locations:

Walker River Irrigation District Office, 410 N. Main Street, Yerington, Nevada
Lyon County Courthouse, Main Street, Yerington, Nevada
U.S. Post Office Bulletin Board, Main Street, Yerington, Nevada
U.S. Post Office Bulletin Board, Highway 208, Smith, Nevada
U.S. Post Office Bulletin Board, Highway 208, Wellington, Nevada
Walker River Irrigation District's website (<http://www.wrid.us>)
The Nevada Public Notice website pursuant to NRS 232.2175 (<https://notice.nv.gov>)


ROBERT C. BRYAN
Manager

A meeting of the Walker River Irrigation District (WRID) Board of Directors was held on November 8, 2021. The meeting was called to order at 10:00 AM at the District Board Room, 410 N. Main St, Yerington, Nevada by President SNYDER.

Present:

Jim SNYDER	President
Marcus MASINI	Vice President
Richard NUTI	Treasurer
David GIORGI	Director
Dennis ACCIARI	Director, via phone
Robert BRYAN	General Manager
Gordon DePAOLI	Legal Counsel, via phone
Jessica HALTERMAN	Secretary
Sandy NEVILLE	Water Rights Specialist

Public Present:

Taylor Thomas, USBWC	Silas Adams, WBC	Carlene Henneman, WBC
Peter Stanton, WBC	Ed Ryan, MV/SVCD	Wyatt Fereday, NDWR
Mike Scott, NDWR	Joanne Sarkisian, USBWC	AJ Jensby, NDWR
Carole O'Banion		

Public Present via phone:

Wes Walker, MBK	Adam Sullivan, NDWR	Dave Hockaday
Chris Smallcomb, NWS	Tim Bardsley, NWS	Frank

1. Public Comment

None presented.

2. Roll Call

Director Acciari was intermittently on the phone.

3. Consideration of Minutes of the October 7, 2021 Regular Meeting

Director GIORGI made a motion to approve the minutes; Treasurer NUTI offered a second. The vote was called for and passed.

4. Water Master's Report

Joanne SARKISIAN reported Bridgeport is currently at 18% capacity with 21 cfs being released and Topaz is currently at 23% capacity with 2.5 cfs being released. There is some water coming in the back side as there is 13cfs at Hoye. Since November 1st, 961 acre-feet have been stored in Bridgeport and 2103 acre-feet have been stored in Topaz. Joanne is running 30 cfs of stock water system wide. Director GIORGI asked if there was stock water on the Fox; Joanne stated Paul Sciarani has been receiving stock water on the Fox since Thursday and there should be water in the drain. Director GIORGI stated no water has hit

the drain yet. Joanne advised she would go check the drain and find out why there is not water.

5. Staff Reports:

A. Treasurer's Report

Treasurer NUTI reported as of October 31, 2021:

Cash in Checking	\$ 194,658.98
Cash in Money Market	\$ 659,173.93
Cash in CDs	\$ 749,661.39
Total	\$1,603,494.30

B. Consideration of Bills and Payroll for payment

<i>October 2021 Bills & Payroll</i>			
<u>Check Number</u>	<u>Effective Date</u>	<u>Vendor Name</u>	<u>Check Amount</u>
122206	10/7/2021	Ameritas Life Insurance	\$ 1,027.80
122207	10/7/2021	Ferguson Enterprises	\$ 9,736.60
122208	10/7/2021	Sticks and Stones	\$ 40.95
122209	10/7/2021	MBK Engineers	\$ 16,637.76
122210	10/7/2021	Mono County Tax	\$ 38,509.84
122211	10/7/2021	Public Employees' BP	\$ 870.23
122212	10/7/2021	Purchase Power / Pitney	\$ 453.00
122213	10/7/2021	NV Energy	\$ 253.28
122214	10/7/2021	Southwest Gas	\$ 38.62
122215	10/7/2021	Desert Engineering	\$ 2,536.76
122216	10/7/2021	BLACKBAUD INC	\$ 9,642.40
122217	10/7/2021	Mason Valley Tire	\$ 131.00
122218	Printer Malfunction		Spoiled/VOID
122219			
122220			
122221			
122222			
122223			
122224	10/12/2021	AT&T	\$ 156.69
122225	10/12/2021	John Deere Credit	\$ 45.01
122226	10/12/2021	Associated Concrete	\$ 1,372.87
122227	10/12/2021	Lyon County Recorder	\$ 67.96
122228	10/12/2021	O'Reilly Automotive,	\$ 493.13

122229	10/12/2021	Pitney Bowes Global	\$ 15.77
122230	10/12/2021	Jim Menesini Petroleum	\$ 40.38
122231	10/12/2021	NV Energy	\$ 37.40
122232	10/12/2021	Alhambra	\$ 1,274.65
122233	10/12/2021	USBWC	\$ 44,009.91
122234	10/12/2021	Wells Fargo Card	\$ 6,965.91
122235	10/12/2021	Xerox Financial Services	\$ 260.43
122236	10/12/2021	City of Yerington	\$ 136.37
122237	10/12/2021	Connolly Crane Service	\$ 708.75
122238	10/27/2021	AFLAC	\$ 35.70
122239	10/27/2021	ABILA Dept 3303	\$ 195.98
122240	10/27/2021	Giomi, Inc.	\$ 469.86
122241	10/27/2021	Hunewill Construction	\$ 479.55
122242	10/27/2021	Associated Concrete	\$ 1,374.19
122243	10/27/2021	NAPA AUTO & TRUCK	\$ 180.19
122244	10/27/2021	MF Barcellos	\$ 4,040.88
122245	10/27/2021	Power Plan	\$ 1,890.62
122246	10/27/2021	Quill	\$ 111.46
122247	10/27/2021	Sciarani & Co.	\$ 11,000.00
122248	10/27/2021	NV Energy	\$ 2.86
122249	10/27/2021	Standard Insurance	\$ 241.03
122250	10/27/2021	Vision Service Plan	\$ 186.05
122251	10/27/2021	Woodburn & Wedge	\$ 52,842.50
122252	10/27/2021	Xerox Financial Services	\$ 164.10
122253	10/27/2021	HomeTown Health	\$ 7,421.23
122254	10/27/2021	Desert Ready Mix	\$ 1,944.94
122255	10/27/2021	Desert Research Inst	\$ 18,646.27
122256	10/27/2021	Reno Gazette Journal	\$ 753.00
122257	10/27/2021	Stanislaus Farm Supply	\$ 257.04
122258	10/27/2021	PERS Administrative	\$ 8,610.95
PAYROLL	10/28/2021	OCTOBER PAYROLL	\$ 43,468.66
		Total Bills & Payroll	\$ 289,780.53

President SNYDER questioned the Blackbaud bill; Secretary HALTERMAN stated the new accounting software is from Blackbaud and it is an annual expense. The expense will decrease because the implementation and training were part of this bill. President SNYDER asked how many employees were being trained; Secretary HALTERMAN stated it is just her for now, but once the software is built and active, there can be 3 employees trained.

Vice President MASINI made a motion to approve the bills; Director GIORGI offered a second. The vote was called for and passed.

C. Manager's Report

GM BRYAN reported Topaz is at 13,500 acre-feet (23%) and Bridgeport is at 7,658 acre-feet (18%). Since last month's update, 8,840 acre-feet has been added in Topaz and 3,463 acre-feet has been added in Bridgeport. The last storm resulted in significant increases in the reservoir and helped the soil moisture.

The shop crew is working on the second WaterSMART grant. They finished pouring at Wedertz #5 and are now pouring on the Cardone and the floor on the Straub. Once that is finished, they will do some burning and grooming at the end of the canal.

At the end of the season last week, all the SCADA sites were winterized. The batteries were taken care of, and sensors were removed and brought back to the yard. The data is currently being processed by the engineers. Hopefully the breakdowns will be ready for the December meeting. ITRC is trying something different than previous years and GM BRYAN will report to the Board when the data is available.

Last Friday, GM BRYAN attended the US Board of Water Commissioners meeting. During the meeting, there was discussion on getting gaging back in Bridgeport Valley at the Buckeye, Robinson, and other sites. Commissioner Hunewill reported he is looking into a company other than USGS and will report back to Joanne who will do a compare/contrast with USGS pricing. The gages will be beneficial to the District for tracking purposes. There was discussion about the study and conveyance losses on the East Walker. DC&R has not gotten back to the District or USBWC. There is a lot of concern of getting something done at Flying M where there was a river channel displacement issue. The Commissioners and the District are going to continue to work to get something back from DC&R.

On October 12th, the Saroni Canal Meeting was held. The recommendation for the assessments and repairs & maintenance were made.

D. Legal Counsel's Report

Counsel DePAOLI reported the District and other parties within the District participating in the Mineral County case filed a motion to dismiss on October 28th. They must reply by March 31st.

E. Review and approval of monthly storage transfers.

Director GIORGI made a motion to approve the transfers; Vice President MASINI offered a second. The vote was called for and passed.

F. Storage Water Leasing Program Update

Wes WALKER reported that MBK has submitted the end of program year reports. The petition for the third and final year will be submitted to the State of California

at the end of this week. Once the California approvals are obtained, the process will continue with the State of Nevada.

G. FY2020-2021 Audit Update

Secretary HALTERMAN reported the auditors have requested some clean up entries be completed, and they will be sent back today. The audit must be done by November 30th, and the hope is to present at the December meeting.

6. Report from and direction to Manager concerning results of video of District Well, and findings, and recommendations of Carson Pump LLC, which include, well brushing, a second video after the brushing, new bowl assembly, another 60 feet of column and replacement of the oil tube and shaft.

GM BRYAN stated there are pictures of the actual bowls in the packet as well as quotes on what is recommended. Last month Carson Pump ran a camera down the well and found some problems. They have given the District a list of what they would propose to have done as well as some of the costs associated with that repair. They also gave another estimate on further repairs that would make the well run even more efficient. The recommendation from a different company a couple months ago was based purely on water samples, but once a video was taken, the recommendation became more structural. GM BRYAN is looking for approval from the Board to move forward with the work. Vice President MASINI confirmed the new estimate is the route the District should go; GM BRYAN stated he is much more comfortable with the new proposal being that an actual video was taken, and the bowls were pulled. If work is done based on the water samples, there will still be problems soon. Director ACCIARI asked how much the Carson Pump estimate is; GM BRYAN stated it is \$34,609 without the second video which was less than \$1,000. Director ACCIARI made a motion to proceed with the work on estimate; Treasurer NUTI offered a second. Treasurer NUTI asked if the \$34,000 included the patch and the brushing; Sandy stated it is for extending the pipe, doing the patch, and replacing the bowls. Counsel DePAOLI requested clarification as the \$34,600 is for the bowls, the brushing & rehab, and second video appears to be \$82,088. Sandy stated the original estimate was the \$82,088, but the revised estimate to fix the patch, replace the bowls, and extend the pipe is \$34,600. GM BRYAN stated the higher estimate was based on the water quality problem, but they are now taking a different route based on the video. Counsel DePAOLI stated he wanted to clarify just in case more quotes are needed. Total between \$50-100,000, the District would need 2 quotes, if the total is below \$50,000, the one quote is fine. There may be two projects- the fixing then the brushing- but that can be decided later. Treasurer NUTI stated the District has \$6800 in cost at this time, to put the bowls back will be another \$6800, and then the work on the estimate. Vice President MASINI understood the estimate as it includes re-installing what was taken out, installing the extra 60', and charges relating to the patch work. GM BRYAN stated he will request a new quote that breaks down the charges more clearly. GM BRYAN asked if there is another company the Board would like to get pricing from; the Board recommended staying with Carson Pump if no other quote is needed. GM BRYAN stated he will get an updated quote and will work with Counsel DePAOLI on the quote requirement. Treasurer NUTI requested to ensure the remobilization is included in the bid and asked if there will be a bill from the company that does the patch; Sandy stated Carson Pump included the patch in their estimate so if there

is a subcontractor, it is covered in the Carson Pump estimate. Secretary HALTERMAN stated the District is tax exempt so that charge will be removed from the estimate making the total \$32,440.

7. Update from the Division of Water Resources regarding groundwater pumping and upcoming fieldwork schedules.

Wyatt FEREDAY introduced AJ Jensby who will take over Mike Scott's position. AJ came from NDOW and has experience working with guzzlers and ditch riding. Mike will be the Basin Specialist in the Winnemucca area. The end of year meter readings and fall water levels are being taken now. Smith Valley has been completed and, unfortunately, the preliminary data shows the level is down as much as 20-24 feet compared to last year. The Spring-to-Spring levels are a better depiction of the aquifer since it has time to recharge a little. Wyatt stated he could get the Mason Valley numbers to the Board before next meeting. Mason Valley does tend to recharge better than Smith Valley so it will be interesting to see what the numbers are next Spring. The pumping numbers will be entered over the next few weeks.

Adam SULLIVAN stated he is concerned with the rate of decline being only two years into the drought. In the previous drought, it took 3-4 years to get to this rate of decline. Adam is looking forward to working with Bert on the conveyance losses. Adam will follow up with the director regarding the study on the East Walker.

8. Update by the Walker River Conservancy on activities related to the Walker Basin Restoration Program, including Acquisitions and Conservation and Stewardship Activities.

Peter STANTON thanked the Board for approving the Stipulation last month. The Conservancy has 10 volunteers from the National Civilian Community Corps helping them and the Boys & Girls Club. The Conservancy is in the middle of their Fall fundraising campaign and will be planting approximately 15,000 plants on Rafter 7, Pitchfork, and Flying M.

9. Presentation and discussion by Tim Bardsley with NOAA regarding the current year weather and water outlook for 2022 irrigation season.

Chris SMALLCOMB presented a PowerPoint. Highlights included:

- Started the water year off with an atmospheric river in October
- There is a modest storm coming in through Tuesday, but nothing close to the storm two weeks ago. This storm will be mostly wind in the Basin with decent snow up high.
- Outlook is leaning toward dry to normal precipitation over the next 10-14 days
- Around November 20th, there is a possibility of a storm later in the month, but the signal is still far out
- November 30th-December 3rd signal shows weak, wet storms north of the Basin
- Year is expected to be weak to normal La Nina- slightly cooler than normal
- Winter of 2016-17 was in the zone of a weak La Nina
- Wet Octobers have historically indicated an active winter
- Soils are wet from recent storm
- There is flood risk in the recent burn scars

Tim BARDSLEY presented a PowerPoint. Highlights included:

- Observed water year was the 5th worst for the West Walker and 4th worst for the East Walker
- The recent storm October 23rd-25th started this water year on a good note
- One big storm will not end the drought, but it did bring record wet conditions
- West Walker spiked to 3,000 cfs at one point and just touched the flood stage. It is in line with the 2017 observed flow
- Currently at near record for the Walker River Basin for early precipitation and SWE
- Preliminary WY2022 forecast is:
 - o West Walker 223kaf, 114% mean, 124% median
 - o East Walker 95.3kaf, 94% mean, 129% median
-

10. Presentation and discussion by Rick Stone from RHS Consultants on aircraft Cloud Seeding.

Rick STONE from RHS Consultants gave a presentation on aircraft cloud seeding. Highlights included:

- Super cooled water drops are below freezing but they are not frozen yet
- Naturalized nuclei seeding material is applied to the super cooled water drops which freezes them resulting in more snow
- Aircraft can produce 500-2500 acre-feet of water per unit hour; ground generators can produce 6-60 acre-feet per unit hour
- The best spot for seeding on the Walker is the east side of Yosemite
- Wet storms result in better seeding and more snow
- Upwind seeding is more effective than downwind seeding as the storms are usually dry once they are over the ridge
- Flares are used on the aircraft to keep the seeders from icing

Treasurer NUTI asked what the effectiveness of aircraft is over ground seeding; Rick stated the effectiveness of aircraft seeding is 10-15% more snow than a ground generator which is about 2-5% effective.

President SNYDER asked what the next step would be; Rick stated the sooner the aircraft is out, the better. GM BRYAN will work with Rick on obtaining a quote. Rick stated it may be beneficial for the District to work with other agencies, so the flight costs are reduced. Treasurer NUTI asked what the average cost was per storm; Rick stated it is \$4,000 per hour which includes the aircraft rental, people involved, chemicals, etc. With the flex in costs, a more current price would be \$6-8,000 per hour. But piggybacking with other agencies would decrease the cost significantly as the flight costs could be shared. Rick stated there are three water districts that seed and are close enough to the Sierras, so when they are flying, it would be a good time to seed for the Walker. GM BRYAN stated that if the Board is interested in a program, the District can reach out to other irrigation districts, state & local governments, and NRCS for funding support. There have also been private individuals who have expressed the intent to donate toward a program. Vice

President MASINI stated a special assessment could be considered as well and it may be beneficial to have the USBWC do the assessment since their assessment base is basin wide.

11. Director Comments

None presented.

12. Public Comment

Carole O'BANION requested to know how to get a copy of the Simpson-Colony By-laws; GM BRYAN stated the can be obtained from the ditch company or can be emailed from District staff again. Carole stated she would like a printed copy for her records.

13. Adjournment

Director GIORGI made a motion to adjourn; Treasurer NUTI offered a second. The vote was called for and passed. The meeting was adjourned at 11:54am.

Jim Snyder, President

Marcus Masini, Vice President

Richard Nuti, Treasurer

Dennis Acciari, Director

David Giorgi, Director

Walker River Irrigation District
Balance Sheet
As of 11/30/2021

Current Year

Assets

Current Assets

Cash & Cash Equivalents

Cash in Checking \$ 186,475.45

Cash in Money Market \$ 795,221.32

Cash in CDs \$ 749,661.39

Total Cash & Cash Equivalents \$ 1,731,358.16

Total Current Assets \$ 1,731,358.16

Total Assets \$ 1,731,358.16

Walker River Irrigation District
Cash Journal - HYTE
From 11/1/2021 Through 11/30/2021

1100 - Cash in Checking

Document Nurr	Payee/Recipient Name	Transaction Description	Effective Date	Deposits	Disbursements	Adjustments
122259	VOID		11/2/2021	0.00	VOID	0.00
122260	California Dept. of Fish and	2022 Stored Water	11/2/2021	0.00	850.00	0.00
122261	CA State Water Resources C	2022 Stored Water	11/2/2021	0.00	28,990.00	0.00
122262	AFLAC	ACCT 0BU87	11/8/2021	0.00	35.70	0.00
122263	Ameritas Life Insurance Cor	ACCT 010-19010-0:	11/8/2021	0.00	1,027.80	0.00
122264	Associated Concrete Pumpir	105 SARONI RD	11/8/2021	0.00	1,580.77	0.00
122265	MBK Engineers	PROFESSIONAL SEI	11/8/2021	0.00	1,755.00	0.00
122265	MBK Engineers	PROFESSIONAL SEI	11/8/2021	0.00	334.50	0.00
122266	Public Employees' Benefits I	ACCT 776	11/8/2021	0.00	870.23	0.00
122267	Purchase Power / Pitney Bo	ACCT 8000-9000-0!	11/8/2021	0.00	100.00	0.00
122268	Quill	ACCT 2874673	11/8/2021	0.00	112.39	0.00
122269	Jim Menesini Petroleum	ACCT 84020	11/8/2021	0.00	340.44	0.00
122270	NV Energy	PREMISES 612890	11/8/2021	0.00	222.76	0.00
122271	Alhambra	ACCT 28835565151	11/8/2021	0.00	136.85	0.00
122272	Southwest Gas Corporation	ACCT 91000060044	11/8/2021	0.00	137.03	0.00
122273	Wells Fargo Card Services P	ACCT 9574	11/8/2021	0.00	3,124.22	0.00
122274	Xerox Financial Services	ACCT 715540498	11/8/2021	0.00	306.93	0.00
122275	City of Yerington	ACCT 12304001	11/8/2021	0.00	130.25	0.00
122276	Sierra Office Solutions	ACCT WR21:90495:	11/8/2021	0.00	29.88	0.00
122277	Yerington Ready Mix	WRID	11/8/2021	0.00	1,037.53	0.00
122278	PERS Administrative Fund	AGENCY 704	11/29/2021	0.00	8,377.79	0.00

Walker River Irrigation District
Cash Journal - HYTE
From 11/1/2021 Through 11/30/2021

122279	Benefit Wallet	ACCT 95009981485	11/29/2021	0.00	23,800.00	0.00
122280	TED & DEBRA FITZPATRICK	2021 STORED WAT	11/29/2021	0.00	119.86	0.00
122281	BATH, RONALD J	2021 STORED WAT	11/29/2021	0.00	120.20	0.00
122282	NAN YER LLC	2021 STORED WAT	11/29/2021	0.00	333.81	0.00
122283	NEVADA-UTAH CONFERENC	2021 STORED WAT	11/29/2021	0.00	245.14	0.00
122284	DGHP, INC	2021 STORED WAT	11/29/2021	0.00	1,227.98	0.00
122285	208 INVESTMENTS, LLC	2021 STORED WAT	11/29/2021	0.00	413.14	0.00
122286	WALKER LAKE WORKING G	2021 STORED WAT	11/29/2021	0.00	228.64	0.00
122287	DAVID E WATSON	2021 STORED WAT	11/29/2021	0.00	27.17	0.00
122288	JIMMIE A RICHARDS	2021 STORED WAT	11/29/2021	0.00	26.20	0.00
122289	JOHN R SCHERSCHEL	2021 STORED WAT	11/29/2021	0.00	115.20	0.00
122290	GREENFIELD STORAGE LLC	2021 STORED WAT	11/29/2021	0.00	133.20	0.00
122291	GREGORY SMITH	2021 STORED WAT	11/29/2021	0.00	198.11	0.00
122292	DAVID & DAWNA WARR	2021 STORED WAT	11/29/2021	0.00	221.04	0.00
122293	EDWARD FERRANTO	2021 STORED WAT	11/29/2021	0.00	1,639.64	0.00
122294	GARY SILVA SR	2021 STORED WAT	11/29/2021	0.00	43.98	0.00
122295	WILLIAMS, MURL E JR REV	2021 STORED WAT	11/29/2021	0.00	83.60	0.00
122296	RICHARD D & TINA M ROBI	2021 STORED WAT	11/29/2021	0.00	33.80	0.00
122297	ROGER B MCNAMARA	2021 STORED WAT	11/29/2021	0.00	584.35	0.00
122298	JOHN HOY ET AL	2021 STORED WAT	11/29/2021	0.00	998.98	0.00
122299	GREGORY B WATTS	2021 STORED WAT	11/29/2021	0.00	998.98	0.00
122300	CURTIS FAMILY TRUST	2021 STORED WAT	11/29/2021	0.00	1,618.57	0.00
122301	GEORGE LABBE	2021 STORED WAT	11/29/2021	0.00	2,994.36	0.00

Walker River Irrigation District
Cash Journal - HYTE
From 11/1/2021 Through 11/30/2021

122302	BLANCA TURNER	2021 STORED WAT	11/29/2021	0.00	60.48	0.00
122303	DAVID & KATHLEEN ROOTS	2021 STORED WAT	11/29/2021	0.00	295.51	0.00
122304	ZACHARY & ANTONIA ROO	2021 STORED WAT	11/29/2021	0.00	295.50	0.00
122305	TODD BRETHAUER	2021 STORED WAT	11/29/2021	0.00	656.34	0.00
122306	LAURIE EVANGELISTA	2021 STORED WAT	11/29/2021	0.00	665.94	0.00
122307	KRIS JOHNSON	2021 STORED WAT	11/29/2021	0.00	38.28	0.00
122308	BODENSTEIN FAMILY TRUS	2021 STORED WAT	11/29/2021	0.00	66.21	0.00
122309	ALBERT BOZSIK	2021 STORED WAT	11/29/2021	0.00	382.98	0.00
122310	SAMUEL RUBIO	2021 STORED WAT	11/29/2021	0.00	6,499.37	0.00
122311	DENNIS MILLER	2021 STORED WAT	11/29/2021	0.00	2,330.74	0.00
122312	WILLIAM STONE	2021 STORED WAT	11/29/2021	0.00	679.46	0.00
122313	ALBERT SKINNER	2021 STORED WAT	11/29/2021	0.00	806.40	0.00
122314	THERESA YORK	2021 STORED WAT	11/29/2021	0.00	569.07	0.00
122315	ABILA Dept 2145	ACCT C017418	11/29/2021	0.00	195.98	0.00
122316	Giomi, Inc.	ACCT 805	11/29/2021	0.00	655.84	0.00
122317	AT&T	ACCT 030 596 9748	11/29/2021	0.00	154.94	0.00
122318	Sticks and Stones Buildings	ACCT WRID	11/29/2021	0.00	1,215.45	0.00
122319	Associated Concrete Pumpir	SARONI	11/29/2021	0.00	1,348.99	0.00
122319	Associated Concrete Pumpir	SARONI & GRANT \	11/29/2021	0.00	1,325.10	0.00
122320	Lyon County Recorder	PERIOD 10/1/21-11	11/29/2021	0.00	35.16	0.00
122321	MF Barcellos	ACCT WALRIV	11/29/2021	0.00	2,734.45	0.00
122322	True Value	ACCT 860	11/29/2021	0.00	54.97	0.00
122323	Power Plan	ACCT 8802-01301	11/29/2021	0.00	1,218.12	0.00

Walker River Irrigation District
Cash Journal - HYTE
From 11/1/2021 Through 11/30/2021

122324	NV Energy	PREMISES 296827	11/29/2021	0.00	37.26	0.00
122325	Standard Insurance Compar	ACCT ST 926196 00	11/29/2021	0.00	241.03	0.00
122326	Verizon Wireless	ACCT 772404160-0	11/29/2021	0.00	301.03	0.00
122327	Vision Service Plan - Nevada	ACCT 30021350	11/29/2021	0.00	186.05	0.00
122328	Woodburn & Wedge	PERIOD ENDING 10	11/29/2021	0.00	68,478.93	0.00
122329	Xerox Financial Services	ACCT 1010-005869	11/29/2021	0.00	30.22	0.00
122330	HomeTown Health	GROUP 3353P	11/29/2021	0.00	7,752.74	0.00
122331	Desert Research Institute	656.4703	11/29/2021	0.00	18,513.64	0.00
122332	Allied Sanitation and Septic	ACCT WRID	11/29/2021	0.00	151.43	0.00
122333	CDTFA Special Taxes and Fees	ACCT 094-000477 F	11/29/2021	0.00	4,229.31	0.00
122333	CDTFA Special Taxes and Fees	ACCT 094-000591 F	11/29/2021	0.00	5,999.43	0.00
122333	CDTFA Special Taxes and Fees	ACCT 094-000651 F	11/29/2021	0.00	318.81	0.00
122334	Connolly Crane Service	ACCT WRID	11/29/2021	0.00	945.00	0.00
122335	Mason Valley Tire	ACCT WRID	11/29/2021	0.00	20.00	0.00
122336	Truckee Tahoe Lumber Co.	ACCT 5789	11/29/2021	0.00	3,367.22	0.00
122337	Yerington Ready Mix	105 SARONI	11/29/2021	0.00	3,923.35	0.00
122337	Yerington Ready Mix	SARONI/GRANT VII	11/29/2021	0.00	2,279.62	0.00
PAYROLL	NOVEMBER PAYROLL		11/30/2021	<u>0.00</u>	<u>33,417.16</u>	<u>0.00</u>
		Total 1100 - Cash in Checking		0.00	258,183.53	0.00

Walker River Irrigation District
Cash Journal - HYTE
From 11/1/2021 Through 11/30/2021

1200 - Cash in Money Market

<u>Document Num</u>	<u>Payee/Recipient Name</u>	<u>Transaction Description</u>	<u>Effective Date</u>	<u>Deposits</u>	<u>Disbursements</u>	<u>Adjustments</u>
7096	Plymouth Ditch Co	INV 595 641	11/10/2021	6,319.98	0.00	0.00
7098	Campbell Ditch Company	INV 613	11/10/2021	3,749.20	0.00	0.00
7099	United States Board of Water Control	USBWC November 1	11/10/2021	1,500.00	0.00	0.00
7100	Wes Smith	INV 559	11/24/2021	<u>500.00</u>	<u>0.00</u>	<u>0.00</u>
		Total 1200 - Cash in Money Market		12,069.18	0.00	0.00
Report Total				<u>12,069.18</u>	<u>258,183.53</u>	<u>0.00</u>

Cash & Cash Equivalent Balances for last 5+ years

	2016	2017	2018	2019	2020	2021
January	\$ 3,405,153.39	\$ 3,016,780.18	\$ 2,858,050.40	\$ 2,774,664.08	\$ 2,698,995.65	\$ 1,595,797.77
February	\$ 2,772,463.11	\$ 3,092,650.98	\$ 2,819,375.59	\$ 2,608,581.71	\$ 2,653,618.99	\$ 1,649,432.95
March	\$ 3,340,917.01	\$ 3,004,853.41	\$ 2,897,158.39	\$ 2,470,877.11	\$ 2,608,927.11	\$ 1,486,551.79
April	\$ 3,314,014.65	\$ 3,043,750.37	\$ 2,806,487.95	\$ 2,776,243.95	\$ 2,430,849.36	\$ 1,542,452.33
May	\$ 3,432,073.73	\$ 3,200,202.73	\$ 2,767,979.62	\$ 2,758,566.68	\$ 2,347,656.69	\$ 1,668,053.83
June	\$ 3,364,692.85	\$ 3,188,940.52	\$ 2,599,190.15	\$ 2,649,311.61	\$ 2,073,214.01	\$ 1,572,457.67
July	\$ 3,176,338.08	\$ 2,756,720.87	\$ 2,590,156.23	\$ 2,405,243.06	\$ 1,915,363.18	\$ 1,449,159.71
August	\$ 3,096,231.21	\$ 2,720,184.48	\$ 2,700,238.25	\$ 2,379,564.66	\$ 1,762,583.28	\$ 1,604,588.00
September	\$ 3,182,881.07	\$ 2,803,493.62	\$ 2,705,200.33	\$ 2,296,206.25	\$ 1,734,127.72	\$ 1,523,514.42
October	\$ 3,234,901.27	\$ 2,922,859.94	\$ 3,127,469.91	\$ 2,326,691.69	\$ 2,127,177.07	\$ 1,843,319.85
November	\$ 3,286,277.66	\$ 2,883,991.07	\$ 2,907,664.91	\$ 2,646,079.87	\$ 1,835,973.02	\$ 1,603,494.30
December	\$ 3,305,895.59	\$ 2,986,981.27	\$ 2,935,083.50	\$ 2,570,577.66	\$ 1,758,426.30	\$ 1,731,358.16

Significant Purchases:

Jan-16	\$	139,069.00	Syblon Reid	Topaz Diversion
Jul-17	\$	279,525.96	Pape Machinery	Long Reach Excavator
Nov-17	\$	124,171.40	Pape Machinery	John Deere Excavator
Jul-20	\$	282,470.75	Pape Machinery	Heavy Excavator
FY2017	\$	387,290.00	Hours, equipment	Pre-flood mitigation
	\$	1,212,527.11		

Significant Outstanding Receivables:

\$	58,653.59	BOR-Campbell
\$	26,464.96	Wes Smith (monthly Payment Plan)
\$	37,405.40	Plymouth Ditch Company
\$	40,590.37	Walker Basin Conservancy- Nichol Merritt CalPoly Bill
\$	189,048.13	NFWF- grant
\$	24,493.07	NFWF- Gage Peterson CalPoly Bill
\$	376,655.52	

Significant Bills cumulative over past 5 years: (some has been billed for reimbursement)

\$	1,214,468.60	Cal Poly
\$	1,948,186.07	Woodburn & Wedge
\$	389,472.54	MBK Engineers
\$	605,758.62	Desert Research Institute
\$	4,157,885.83	

Walker River Irrigation District
Check/Voucher Register - Last Month Bills
From 11/1/2021 Through 11/30/2021

NOVEMBER 2021 BILLS & PAYROLL

Check Number	Effective Date	Vendor Name	Check Amount
122259	11/2/2021	CA State Water Resources Control Board	VOID
122260	11/2/2021	California Dept. of Fish and Game	\$ 850.00
122261	11/2/2021	CA State Water Resources Control Board	\$ 28,990.00
122262	11/8/2021	AFLAC	\$ 35.70
122263	11/8/2021	Ameritas Life Insurance Corp	\$ 1,027.80
122264	11/8/2021	Associated Concrete Pumping Material Belting	\$ 1,580.77
122265	11/8/2021	MBK Engineers	\$ 2,089.50
122266	11/8/2021	Public Employees' Benefits Program	\$ 870.23
122267	11/8/2021	Purchase Power / Pitney Bowes	\$ 100.00
122268	11/8/2021	Quill	\$ 112.39
122269	11/8/2021	Jim Menesini Petroleum	\$ 340.44
122270	11/8/2021	NV Energy	\$ 222.76
122271	11/8/2021	Alhambra	\$ 136.85
122272	11/8/2021	Southwest Gas Corporation	\$ 137.03
122273	11/8/2021	Wells Fargo Card Services	\$ 3,124.22
122274	11/8/2021	Xerox Financial Services	\$ 306.93
122275	11/8/2021	City of Yerington	\$ 130.25
122276	11/8/2021	Sierra Office Solutions	\$ 29.88
122277	11/8/2021	Yerington Ready Mix	\$ 1,037.53
122278	11/29/2021	PERS Administrative Fund	\$ 8,377.79
122279	11/29/2021	Benefit Wallet	\$ 23,800.00
122280	11/29/2021	TED & DEBRA FITZPATRICK	\$ 119.86
122281	11/29/2021	BATH, RONALD J	\$ 120.20
122282	11/29/2021	NAN YER LLC	\$ 333.81
122283	11/29/2021	NEVADA-UTAH CONFERENCE	\$ 245.14
122284	11/29/2021	DGHP, INC	\$ 1,227.98
122285	11/29/2021	208 INVESTMENTS, LLC	\$ 413.14
122286	11/29/2021	WALKER LAKE WORKING GROUP	\$ 228.64
122287	11/29/2021	DAVID E WATSON	\$ 27.17
122288	11/29/2021	JIMMIE A RICHARDS	\$ 26.20

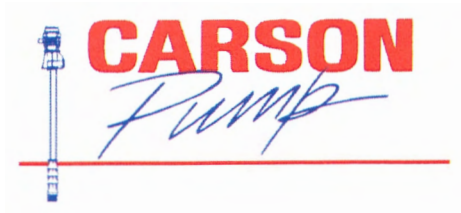
Walker River Irrigation District
Check/Voucher Register - Last Month Bills
From 11/1/2021 Through 11/30/2021

122289	11/29/2021	JOHN R SCHERSCHEL	\$	115.20
122290	11/29/2021	GREENFIELD STORAGE LLC	\$	133.20
122291	11/29/2021	GREGORY SMITH	\$	198.11
122292	11/29/2021	DAVID & DAWNA WARR	\$	221.04
122293	11/29/2021	EDWARD FERRANTO	\$	1,639.64
122294	11/29/2021	GARY SILVA SR	\$	43.98
122295	11/29/2021	WILLIAMS, MURL E JR REVOCABLE TRUST	\$	83.60
122296	11/29/2021	RICHARD D & TINA M ROBERSON FAMILY	\$	33.80
122297	11/29/2021	ROGER B MCNAMARA	\$	584.35
122298	11/29/2021	JOHN HOY ET AL	\$	998.98
122299	11/29/2021	GREGORY B WATTS	\$	998.98
122300	11/29/2021	CURTIS FAMILY TRUST	\$	1,618.57
122301	11/29/2021	GEORGE LABBE	\$	2,994.36
122302	11/29/2021	BLANCA TURNER	\$	60.48
122303	11/29/2021	DAVID & KATHLEEN ROOTS	\$	295.51
122304	11/29/2021	ZACHARY & ANTONIA ROOTS	\$	295.50
122305	11/29/2021	TODD BRETHAUER	\$	656.34
122306	11/29/2021	LAURIE EVANGELISTA	\$	665.94
122307	11/29/2021	KRIS JOHNSON	\$	38.28
122308	11/29/2021	BODENSTEIN FAMILY TRUST	\$	66.21
122309	11/29/2021	ALBERT BOZSIK	\$	382.98
122310	11/29/2021	SAMUEL RUBIO	\$	6,499.37
122311	11/29/2021	DENNIS MILLER	\$	2,330.74
122312	11/29/2021	WILLIAM STONE	\$	679.46
122313	11/29/2021	ALBERT SKINNER	\$	806.40
122314	11/29/2021	THERESA YORK	\$	569.07
122315	11/29/2021	ABILA Dept 2145	\$	195.98
122316	11/29/2021	Giomi, Inc.	\$	655.84
122317	11/29/2021	AT&T	\$	154.94
122318	11/29/2021	Sticks and Stones Buildings Material Inc	\$	1,215.45
122319	11/29/2021	Associated Concrete Pumping Material Belting	\$	2,674.09
122320	11/29/2021	Lyon County Recorder	\$	35.16
122321	11/29/2021	MF Barcellos	\$	2,734.45

Walker River Irrigation District
 Check/Voucher Register - Last Month Bills
 From 11/1/2021 Through 11/30/2021

122322	11/29/2021	True Value	\$	54.97
122323	11/29/2021	Power Plan	\$	1,218.12
122324	11/29/2021	NV Energy	\$	37.26
122325	11/29/2021	Standard Insurance Company	\$	241.03
122326	11/29/2021	Verizon Wireless	\$	301.03
122327	11/29/2021	Vision Service Plan - Nevada	\$	186.05
122328	11/29/2021	Woodburn & Wedge	\$	68,478.93
122329	11/29/2021	Xerox Financial Services	\$	30.22
122330	11/29/2021	HomeTown Health	\$	7,752.74
122331	11/29/2021	Desert Research Institute	\$	18,513.64
122332	11/29/2021	Allied Sanitation and Septic Services	\$	151.43
122333	11/29/2021	CDTFA Special Taxes and Fees Remittance	\$	10,547.55
122334	11/29/2021	Connolly Crane Service	\$	945.00
122335	11/29/2021	Mason Valley Tire	\$	20.00
122336	11/29/2021	Truckee Tahoe Lumber Co.	\$	3,367.22
122337	11/29/2021	Yerington Ready Mix	\$	6,202.97
PAYROLL	11/30/2021	NOVEMBER PAYROLL	\$	33,417.16

Total Bills & Payroll \$ 258,183.53



P.O. Box 20159
Carson City, NV.
89721
775-888-9926

Provisional
Invoice

Date	Invoice #
11/29/2021	4665

Bill To

Walker River Irrigation Dist.
P.O. Box 820
Yerington, NV. 89447
Att: Sandy

P.O. No.		Terms	Project	
			Well # 25813	
Description		Qty	Rate	Amount
Mobilization and demobilization of rig, crew and equipment		1	3,500.00	3,500.00
Remove 120' of 12" X 2-1/2" X 1-1/2" Layne Bowler turbine pump		120	15.00	1,800.00
Conduct video of well after pump removal		1	900.00	900.00
WORK ALREADY PERFORMED				
Thank you for your business.			Subtotal	\$6,200.00
			Sales Tax (7.1%)	\$0.00
			Total	\$6,200.00



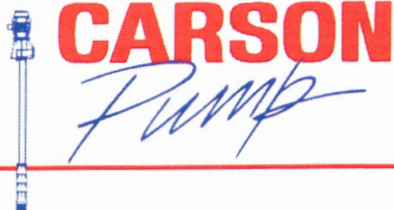
Carson Pump, LLC
P.O. Box 20159
Carson City, NV. 89721

Date	Estimate #
11/29/2021	2512

NV. Lic #39920A
CA. Lic #745270

Name / Address
Walker River Irrigation Dist. P.O. Box 820 Yerington, NV. 89447 Att: Sandy

		Project	
		Well #25813 recomm...	
Description	Qty	Cost	Total
This cost estimate is for recommended extra work : Brush 18" & 16" casing for 4 hrs. to verify condition of casing	4	250.00	1,000.00
Conduct video of well to verify condition	1	700.00	700.00
Contract Longmier Swaging to patch hole in casing at 99' (if required, each additional patch is \$4,000.00)	1	6,500.00	6,500.00
Furnish 60' of new, 12" X 2-1/2" X 1-1/2" Layne Bowler column assembly	60	120.00	7,200.00
Furnish 120' of new, 2-1/2" X 1-1/2" oil tube and line shaft assembly (to replace existing tube & shaft)	120	50.00	6,000.00
Furnish new Flowserve model 16 NKL, 2 stage bowl assembly, designed for 3,500 gpm with 140 tdh	1	8,400.00	8,400.00
ESTIMATE TO REHAB WELL			
Thank you for considering Carson Pump for this proposal		Subtotal	\$29,800.00
		Sales Tax (7.1%)	\$0.00
		Total	\$29,800.00



Carson Pump, LLC
P.O. Box 20159
Carson City, NV. 89721

Date	Estimate #
11/29/2021	2511

NV. Lic #39920A
CA. Lic #745270

Name / Address
Walker River Irrigation Dist. P.O. Box 820 Yerington, NV. 89447 Att: Sandy

		Project	
		Well # 25813	
Description	Qty	Cost	Total
Brush 18" & 16" casing for 12 hrs. (8 hrs. before acid installation and 4 hrs. after)	12	250.00	3,000.00
Line swab 18" & 16" casing for 10 hrs. (2 hrs. before acid installation and 2 hrs. after)	10	250.00	2,500.00
Est. 6 hrs. to bail debris from well	6	250.00	1,500.00
Furnish 1,300 gallons of 32% active hydrochloric acid (inhibited)	1,300	11.00	14,300.00
Est. 8 hrs. to install tremme pipe to 400' and inject acid at various depths	8	250.00	2,000.00
Install combination pumping and swabbing tool to 520'	520	10.00	5,200.00
Est. 10 hrs. to pump acid to tank and neutralize	10	250.00	2,500.00
Redevelope 420' of perforations by pumping, brushing and swabbing simultaneously for est. 20 hrs.	20	300.00	6,000.00
Conduct video of well after cleaning	1	0.00	0.00
Reinstall 180' of 12" Layne Bowler turbine pump	180	15.00	2,700.00
ESTIMATE OF ADDITIONAL RECOMMENDED WORK			
Thank you for considering Carson Pump for this proposal		Subtotal	\$39,700.00
		Sales Tax (7.1%)	\$0.00
		Total	\$39,700.00

Provisional Estimate



Carson Pump, LLC
P.O. Box 20159
Carson City, NV. 89721

Date	Estimate #
11/3/2021	2501

NV. Lic #39920A
CA. Lic #745270

Name / Address
Walker River Irrigation Dist. P.O. Box 820 Yerington, NV. 89447 Att: Sandy

		Project	
		Well #25813	
Description	Qty	Cost	Total
180' of 12" X 2-1/2" X 1-1/2" pump column assembly with new oil tube and line shaft	180	120.00	21,600.00T
New Flowserve model 16ENH, 2 stage bowl assembly designed for 4,000 gpm with 120' of lift*	1	8,950.00	8,950.00T
Freight on new equipment	1	1,890.00	1,890.00
*The Flowserve bowl assembly is a duplicate to the pump that was removed from the well			
OLD ESTIMATE FROM LAST MONTH			
Thank you for considering Carson Pump for this proposal		Subtotal	\$32,440.00
		Sales Tax (7.1%)	\$2,169.05
		Total	\$34,609.05

Bert Bryan

From: Richard Stone <4rstone@gmail.com>
Sent: Tuesday, November 30, 2021 11:22 AM
To: Bert Bryan
Subject: Re: CA DWR meeting talk
Attachments: WRID 2022 Budget Estimate 211130.pdf; 2022 WRID PROPOSAL 211130.pdf

Hi Bert,

Attached is a brief proposal summary and budget to operate a 3 month program. If needed a more detailed proposal can be provided given additional time.

There are two areas in the budget that we can save a little. If WRID contracts directly with RHS, as opposed to going through NSHE, then the rates could be reduced by about half. This could save about \$16K from the total cost and start up funds. NSHE's liability insurance requirements are very high and significantly increase start-up costs. It is possible that we would be able to finance the premium in that case and add the cost to the monthly standby costs and reduce startup funds.

The total cost of the project is a not-to-exceed estimate. The bid schedule is broken into fixed standby costs and expendable costs for flight time. Start-up costs can be lowered if RHS provides the flares on a reimbursement basis. This will add to the total cost because material costs are rising rapidly and we expect flare prices to increase in the near future. We're open to discussion with all aspects of the proposal.

Let me know if you have any questions or if I can do anything to help. I hope you find the information helpful and look forward to speaking with you. Good luck with your talk this evening.

Thanks,

Rick

On Mon, Nov 29, 2021 at 5:53 AM Bert Bryan <bert@wrid.us> wrote:

Rick,

Good morning. Thanks for giving me an update. I will be speaking with a large group of folks talking about cloud seeding and possible funding for a program on Tuesday evening. If you have any information that you would like to share, please let me know.

Thanks,

Bert

Subject: W201 2013 Budget
To: Ben
Sent: Thursday, November 14, 2012 11:53 AM
From: Richard Stone <richard@whid.us>

Hi Ben,
I've attached summary and budget for 2013. It needed a more detailed proposal can be provided given additional time.

The two main items in the budget that we can save a little. If WHID contracts directly with RMT as opposed to going through RMT, then the rates could be reduced by about half. This could save about \$15K from the total cost and start us back on a budget. Insurance coverage for the very high and significant increase start up costs. It is possible that we will be able to finance the program in that case and add the cost to the monthly standby costs and reduce startup funds.

The total cost of the program is a not-a-fixed estimate. The schedule is broken into fixed standby costs and expanded costs for flight time. Stand up costs can be lowered if WHID provides the funds on a reimbursement basis. This will add to the total cost because we have to cover the flight costs and we expect have prices to increase in the near future. We're open to discussion with all aspects of the program.

Let me know if you have any questions or if I can do anything to help. I hope you find the information helpful and look forward to speaking with you. Good luck with your talk this evening.

Thanks,

Ben

On Mon, Nov 12, 2012 at 2:57 AM Ben <ben@whid.us> wrote:

Ben

Good morning. I'm looking for a group of folks talking about climate change and possible funding for a program on Tuesday evening. If you have any information that you would like to share, please let me know.

Thanks,

Ben

**A Proposal to Perform a Weather Modification Program over the Upper
Headwaters of the Walker River Basin**

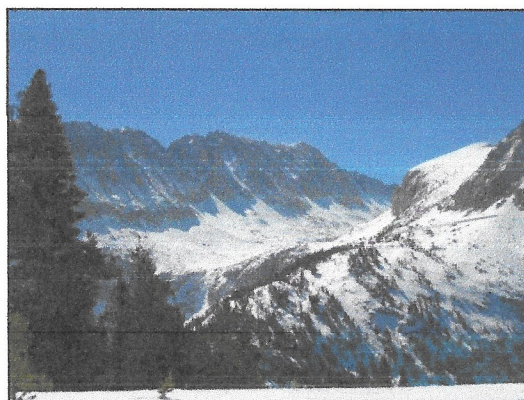
Emergency Drought Alleviation

Operational Period: 1 February 2022 – 30 April 2022

Submitted to:

WALKER RIVER IRRIGATION DISTRICT

YERINGTON, NV



Submitted by

RHS Consulting, Ltd.

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Weather Modification Program for the Walker River Basin

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Weather Modification Program for the Walker River Basin

EXECUTIVE SUMMARY

RHS Consulting, Ltd. (RHS) is pleased to present the Walker River Irrigation District (WRID) with this proposal to provide the necessary equipment, personnel, and services to conduct a cost-effective aerial cloud seeding program targeting the headwaters of the Walker River Basin. The program is designed to enhance precipitation falling in the target area to increase streamflow in the headwaters of the Walker River.

Annually the base aircraft program is designed to produce an additional 26,532 acre-feet (9.2%) increase in runoff into the 557 square mile WRID target area (Figure 1). A benefit cost analysis is included in the budget section of this proposal.

RHS has been active in the field of weather modification since 1980 and specializes in winter cloud seeding programs. RHS proposes a turn-key drought relief program operating from February 1, 2022, through April 30, 2022 with the option to extend through the end of May if conditions warrant. The proposed seeding program will include:

- Qualified meteorologists, pilots, technicians, and engineers as required for maintaining the overall system and conducting training as necessary.
- A PA-31P Pressurized Navajo turbocharged twin engine fully de-iced seeding aircraft specially equipped to dispense state-of-art ice nucleating seeding materials. The aircraft is equipped to release seeding materials from ejectable and burn-in-place flares. The Navajo can disperse up to 24 end-burning and 204 ejectable flares. The Navajo has a proven track record for seeding Sierra winter clouds operating the past twelve seasons in the Central and Southern Sierra without incident.
- Seeding missions last up to three hours in duration. The aircraft is equipped with a data acquisition system that can transmit and record aircraft position and seeding events so that each mission can be displayed real time and subsequently plotted and available for reporting. This proposal includes 36 hours of flight time with no ferry time to move aircraft to the project area.
- Seeding materials designed specifically for winter clouds. 200g end-burning flares and 20g ejectable flares are proposed for this program (Figure 2 and 3). RHS seeding materials form ice crystals over greater areas and longer times, which helps prevent local overseeding. RHS has extensive experience developing high yield cloud seeding flares and solution formulations that activate at warmer temperatures than standard seeding materials. Many of these materials include tracers that have been

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used assess seeding programs around the world. These materials can improve the effectiveness of seeding aerosols more than a thousand times in the warmer temperature range of -4 to -8 °C when compared with the traditional seeding materials currently used in most Sierra cloud seeding programs. This allows up to twice as many storm hours to be seeded, which effectively doubles the number of opportunities for enhancing precipitation in a typical winter seeding program.

- An assessment based on streamflow to determine the effectiveness of the seeding program and quantify changes in streamflow in the target area produced by the seeding program.

RHS can provide the WRID with a cost-effective, proven approach for increasing precipitation and enhancing runoff into the Bridgeport Reservoir, Topaz Lake and headwaters of the Walker River. Provided suitable seeding opportunities manifest themselves, this can provide more water for irrigation and streamflow that can benefit WRID and the public. Use of experienced personnel avoids potential negative consequences involved with poor seeding strategies and critical to the success of the program.

The use of seeding materials optimized for winter clouds will provide WRID with more reliable results and maintain program effectiveness. Experienced personnel combined with the advanced forecasting tools designed to identify seeding opportunities, locations of supercooled liquid water and overall cloud seeding potential are critical for planning seeding operations. An assessment based on streamflow to provide accountability to WRID will also be included at no cost.

This proposal is open for discussion on all of its various aspects. RHS staff will remain focused, responsive, and available to WRID at all times. Based on the combined practical experience of our team in cloud seeding programs and weather forecasting, we feel this proposal provides the best possible solution that can be mobilized within a time frame of 6 weeks after a contract has been awarded.

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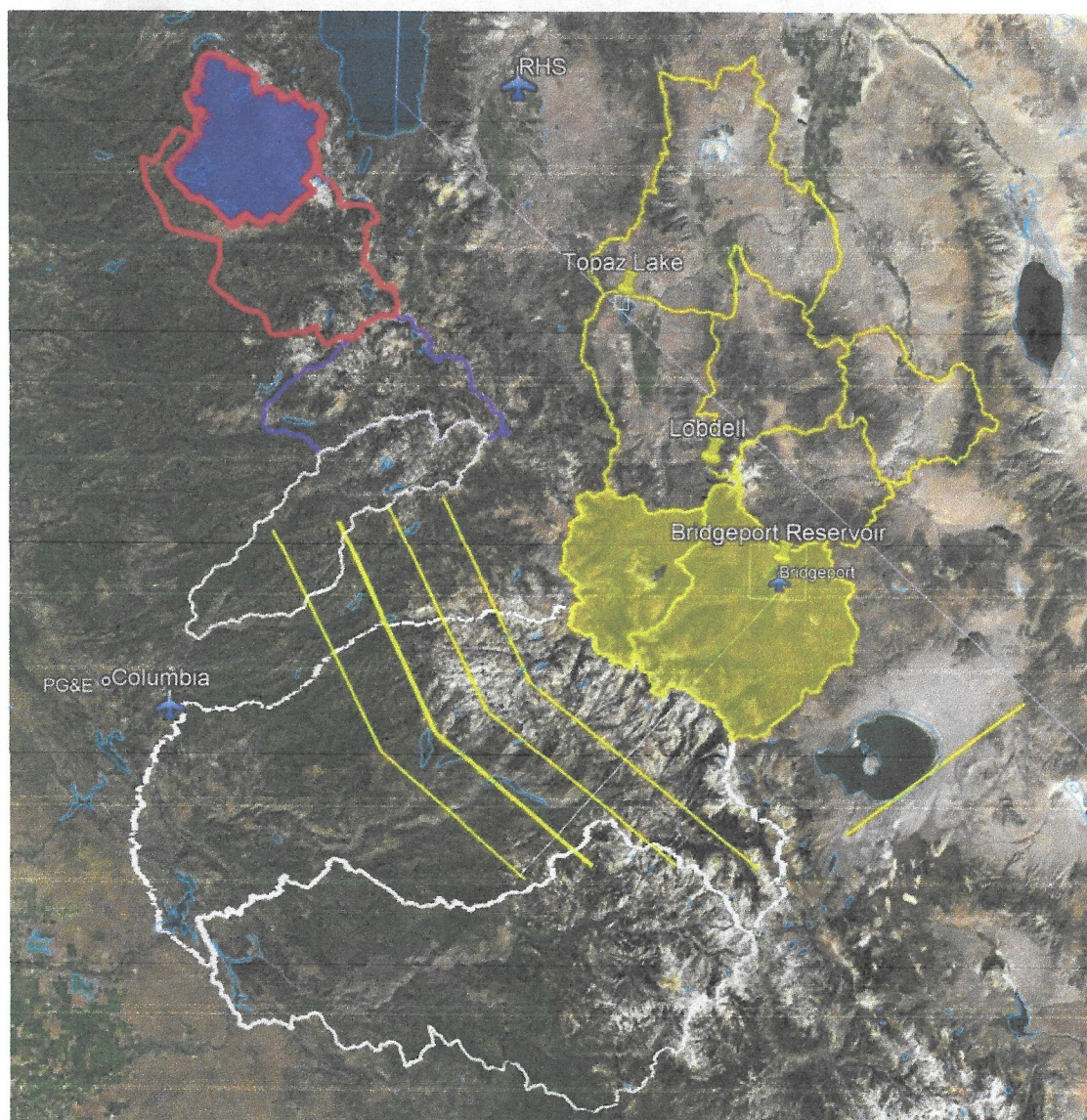


Figure 1. Walker River Basin Target Area.

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Figure 2. RHS 200g End-burning flare ignited at night. These end-burning flares are designed for winter clouds and burn for 4 minutes.



Figure 3. An end-burning flare ignited on the trailing edge of the aircraft while base seeding summer convective cloud over the Kern River Basin.

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COMPANY BACKGROUND

RHS Consulting, Ltd. (RHS) was founded by Richard Stone in 1999. Historically the company has focused on the design and evaluation of winter cloud seeding programs for utility companies and other public and private entities both nationally and internationally. During 2006, the company was expanded and became involved in the manufacture of custom state-of-the-art ground-based remotely controlled generators, pyrotechnics and cloud seeding operations.

RHS is based in Minden, NV where hangar and shop facilities are located to maintain aircraft, cloud seeding generators and co-located with in-house servers. An operations office is located at the Fresno Yosemite International Airport. Seeding aircraft are hangered in Minden, NV, Fresno, CA and Sacramento, CA to serve Sierra Nevada winter seeding programs.

Currently the company employs seven core staff, with experienced seasonal project staff and subcontractors being added as needed during the winter season. The company operates four winter programs in the Sierra Nevada. Project budgets range in scale from \$250,000 to \$975,000 annually.

U.S PROJECT EXPERIENCE

RHS has been working in the field of weather modification operations and research for more than thirty years both nationally and internationally. A partial list of domestic cloud seeding operations and research projects follows that demonstrate our proven ability to work with utilities and public agencies:

1992-2014, 2017-present: Southern California Edison Company: "Upper San Joaquin Weather Modification Research Program", San Joaquin Weather Modification Program, Vista Quantitative Precipitation Forecast."

2015: Friant Water Authority: "Upper San Joaquin Weather Modification Research Program", San Joaquin Weather Modification Program.

1984-2007: Pacific Gas and Electric Company: "Atmospheric Modeling and Cloud Seeding Services", "Design of the Pit River Basin Cloud Seeding Program", "Mokelumne Watershed Lake and Sediment Chemistry Study", "Ground-based Generator Calibration Study", "Stanislaus Meadow Ground Generator Trace Chemistry Assessment", "Pit River Generator Fabrication Program", "Lake Almanor Trace Chemistry Program", "Ground-based Generator Modernization Program", "Mokelumne Watershed Technology Improvements Program",

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"Mokelumne Watershed Lake and Sediment Sampling Program", "Cloud seeding design studies for the Upper Stanislaus"

2010-Present: Kaweah Delta Water Conservation District: "Kaweah River Basin Cloud Seeding Program".

2021-Present: Kings River Conservation District: "Kings River Basin Cloud Seeding Program".

2008-Present: North Kern Water Storage District: "Kern River Basin Cloud Seeding Program (sponsors include the NKWSD, Buena Vista Water Storage District, City of Bakersfield, Kern Delta Water Storage District)

1995-1998, 2001-2005: Idaho Power Company: "Payette Basin Cloud Seeding Program". "Weather Modification Research in the Payette River Basin".

2001-2002: Yuba County Water Agency: "Design considerations and targeting studies in the Yuba River watershed".

2001-2003: Northern California Power Agency: "Stanislaus cloud seeding program design and public hearing testimony".

1990 to 2001: Washoe County Airport Authority: "Supercooled Fog Dispersal Program",

1980-2001, State of Nevada: "State Cloud Seeding Program", "Trace Chemical Monitoring of Cloud Seeding Effects", "Ground-based Generator Calibration Studies"

1996-1999: U. S. Army Cold Regions Research and Engineering Laboratory, "Mt. Washington Drizzle Measurement Program".

1983-1997: NOAA "NV/NOAA Federal-State Atmospheric Modification Program"

1984-1987: Bureau of Reclamation: "Sierra Cooperative Pilot Project, Project Skywater"

1982-1983: State of Utah Department of Water Resources "Utah/NOAA Snowpack Program"

RHS has also worked internationally in programs located in British Columbia and Alberta, Canada, Mendoza, Argentina, Snowy Mountains, Australia, Costa Rica, and India.

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REFERENCE LIST

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EXPERIENCE AND QUALIFICATIONS OF KEY PROJECT PERSONNEL

The work requires highly competent, enthusiastic, dedicated personnel. It requires the personnel to be able to multitask, able to respond rapidly to developing weather events, to be competent in more than one specific field and still be able to act and work together as a team.

Mr. Richard Stone will act as the project manager and be responsible for the overall operation of the program. He has over thirty-five years of experience conducting winter cloud seeding operations and research around the world. He specialized in Sierra Nevada Winter programs and is familiar with the WRID target area and all basins north and south in the Central Sierra Nevada. He has an MS in Atmospheric Science and is a WMA certified operator (#86).

Mr. David Newsom will act as the project meteorologist. Mr. Newsom has over thirty-five years of experience seeding both summer and winter cloud systems in the Sierra

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Nevada and is a WMA certified operator (#47). His knowledge of cloud seeding procedures and the local area is extensive.

Mr. Edwin Forsberg will be the project pilot and has more than 20,000 hours of total time. Mr. Forsberg lives locally in Sacramento and be available for any seeding operations with less than four hours' notice. This will ensure that we can respond to all seedable winter storms in a timely manner. Mr. Forsberg is an airline transport pilot with one season of cloud seeding experience and is also a multiengine instructor and IA mechanic.

Mr. Eric Fisher, ATP, will be responsible for training and act as a relief pilot for any sustained events that require mandatory rest periods so operations can continue without interruption. Mr. Fisher has ten seasons of cloud seeding experience and more than 20,000 hours of total time. Mr. Fisher is also an A&P mechanic.

Mr. Chris Stonebreaker, Chemist is based in Prescott, AZ and will provide expertise and assistance with all pyrotechnic issues

Mr. Richard Strand, Carson Valley Aviation Services, Minden-Tahoe Airport will be responsible for all major aircraft maintenance. He has over twenty five years of experience and is an Airframe and Power Plant (A&P) with Inspection Authority (IA) and is the owner of Carson Valley Aviation.

Mr. Gerry Meeker, IA, A&P will also be available at KMEV. He is an experienced aircraft mechanic with more than 20 years of broad experience working for the airlines and commercial operations. Mr Meeker is based in Fresno but can be available to assist Mr. Strand for any major maintenance issues that arise.



Proprietary Information-Confidential

Nov 30, 2021

2022 WRID Program Budget Estimate							
Aircraft Seeding							
(Feb 1, 2022 through April 30, 2022)							
Cost Factor	1.000						
This cost proposal is valid for 45 days							
Program Duration (months)	3						
	Units	Rate	Cost	Month	Direct	Indirect	Totals
Salaries and Fringe							
Project Manager	20	\$130	1.000	3	\$7,800	\$4,602	\$12,402
Site Meteorologist(s)	50	\$65	1.000	3	\$9,750	\$5,753	\$15,503
Secretary	40	\$35	1.000	3	\$4,200	\$2,478	\$6,678
Technicians	20	\$65	1.000	3	\$3,900	\$2,301	\$6,201
Pilots	40	\$105	1.000	3	\$12,600	\$7,434	\$20,034
Total Salaries and Fringe					\$38,250	\$22,568	\$60,818
Fixed Costs							
Remote Generator Lease	0	\$750	1.000	3	\$0	\$0	\$0
Manual Generator Lease	0	\$150	1.000	3	\$0	\$0	\$0
Office/Utilities/Site Leases	0	\$3,000	1.000	3	\$0	\$0	\$0
Liability Insurance	0	\$5,000	1.000	3	\$0	\$0	\$0
Per Diem - Pilots	0	\$2,500	1.000	3	\$0	\$0	\$0
Hangar/Office/Utilities	1	\$2,500	1.000	3	\$7,500	\$4,425	\$11,925
Aircraft Lease	1	\$5,000	1.000	3	\$15,000	\$8,850	\$23,850
Total Fixed Costs					\$22,500	\$13,275	\$35,775
Subtotal Salaries and Fixed Costs					\$60,750	\$35,843	\$96,593
Operating Costs							
Vehicle Mileage	0	\$1.05	1.000	3	\$0	\$0	\$0
Propane	0	\$3	1.000	3	\$0	\$0	\$0
Seeding Solution	0	\$65	1.000	3	\$0	\$0	\$0
Flight time	12	\$300	1.000	3	\$10,800	\$0	\$10,800
Aircraft Fuel	12	\$460	1.000	3	\$16,560	\$0	\$16,560
200g Endburning	0	\$125	1.000	3	\$0	\$0	\$0
20g Ejectable	0	\$45	1.000	3	\$0	\$0	\$0
Subtotal Operating Costs					\$27,360	\$0	\$27,360
Mobilization (Flares, Ins, Prep)	1	\$82,000	1.000	1	\$82,000	\$0	\$82,000
Subcontract							
Explicit SLW, CSI and 7-day Forecast	0	\$2,000	1.000	6	\$0	\$0	\$0
Assessment	0	\$50,000	1.000	1	\$0	\$0	\$0
Subcontract Subtotal					\$0	\$0	\$0
Indirect Recovery Rate	59%						
Total Program Cost					\$170,110	\$35,843	\$205,953
Insurance Category includes \$1M Auto, \$4M GCL, \$5M Aircraft Liability, \$1M Aviation Workers Comp							
Streamflow assessment included as part of the overall program package							

2022 WRID Aircraft Benefit Cost Analysis			
(Feb 1, 2022 through April 30, 2022)			
Aircraft Seeded Water Volume - 200g RHS Flares			
(Volume=Seed Rate* Hours*Targeting eff * Operational eff)			
Wind Speed			25 m/s
Track Length			30 mi
Depth			30 mi
Seeding Footprint			900 sq mi
Aircraft Average Seeded Precip Rate			1 mm/hr
Targeting Effectiveness			60%
Operating Efficiency (seed time on track)			65%
Aircraft Seeded Water Production Rate			737 AF/hr
Aircraft Flight Hours			36 hours
Target Area Size (Primary Target - Headwaters East and West Forks of the Walker,			557 sq mi
Aircraft Seeded Water Volume			26,532 AF
Summary Volumes and Costs			
Walker - Annual Flow			294,140 AF
Project Cost			\$205,953
Annual Increase (%)			9.02%
Total Seeded Precipitation Volume			26,532 AF
Seeded Water Production Cost			\$7.76 \$/AF
Average Generation (MWh)			MWh
Generation Capacity			MW
Hydroelectric Power Factor			MW/AF
Energy Value			\$/KWh
Benefit from Hydro Power Generation			
2022 Water V _i Escallation Rate			
Irrigation Water Value	95	1.000	\$95.00 \$/AF
Total Benefit of Seeded Water (Energy + Water)			\$2,520,567
Benefit/Cost			12.24



Bid Schedule

WY2022 Aircraft Seeding Budget Estimate

Item

1 Startup (Flares, Insurance, Prep)	\$82,000
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2 Monthly Standby Costs

Feb	\$32,198
Mar	\$32,198
Apr	\$32,198

Total	\$96,593
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Monthly Expendables

3	Hourly Seed Rate	\$760.00	
	Average Hours	12.0	\$9,120

4 Not to Exceed Cost	\$205,953
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6 Weeks Prep required

