



SANTA CLARA VALLEY WATER DISTRICT

NON-AGENDA

November 6, 2020

Board Policy EL-7 Communication and Support to the Board
The BAOs shall inform and support the Board in its work.

Page	<u>CEO BULLETIN & NEWSLETTERS</u>
3	Weeks of October 23 – November 5, 2020
	<u>BOARD MEMBER REQUESTS & INFORMATIONAL ITEMS</u>
10	BMR/IBMR Weekly Reports: 11/05/20
11	Memo from Aaron Baker, COO, Water Utility, to the Board of Directors, dated 11/2/20, regarding Coordination Efforts with CAL FIRE on Anderson Reservoir Water Drawdown.
	<u>INCOMING BOARD CORRESPONDENCE</u>
22	Board Correspondence Weekly Report: 11/05/20
23	Email from Rhoda Fry, to the Board of Directors, dated 10/15/20, regarding Impacts of the Cupertino Quarries on Water Quality, especially at Stevens Creek Reservoir (C-20-0174).
37	Gratitude Emails to Rick Callender, CEO, regarding CEO's Statement on SVO Racism (C-20-0175).
40	Email from Raymond White, to the Board of Directors, dated 10/30/20, regarding Valley Waters Website (C-20-0177).
43	Email from Long Le, to the Board of Directors, dated 10/30/20, regarding Valley Waters Low-Income Senior Program (C-20-0178).
46	Email from Mary Cox, to Director Varela, dated 11/2/20, regarding Morgan Hill Water Quality Testing (C-20-0179).
	<u>OUTGOING BOARD CORRESPONDENCE</u>
48	Email from Director Kremen, to David Lewis, dated 10/29/20, regarding Water Retention Basin at Rancho San Antonio (C-20-0171).
50	Email from Bhavani Yerrapotu, DOO, Treated Water Division, to Mary Cox, dated 11/2/20, regarding Morgan Hill Water Quality Testing (C-20-0179).
52	Email from Director's Keegan and Santos to Councilmember O'Neill, dated 11/3/20, regarding meeting to discuss Working together to Address the Challenges Associated with the Unhoused living in Santa Clara's Creeks (C-20-0172).

Board correspondence has been removed from the online posting of the Non-Agenda to protect personal contact information. Lengthy reports/attachments may also be removed due to file size limitations. Copies of board correspondence and/or reports/attachments are available by submitting a public records request to publicrecords@valleywater.org.

CEO BULLETIN

CEO BULLETIN



To: Board of Directors
From: Rick L. Callender, CEO

Weeks of October 23 – November 5, 2020

Board Executive Limitation Policy EL-7:

The Board Appointed Officers shall inform and support the Board in its work. Further, a BAO shall 1) inform the Board of relevant trends, anticipated adverse media coverage, or material external and internal changes, particularly changes in the assumptions upon which any Board policy has previously been established and 2) report in a timely manner an actual or anticipated noncompliance with any policy of the Board.

Item	IN THIS ISSUE
<u>1</u>	Amendment to California Universal Waste Regulations
<u>2</u>	Annual Valley Water-San Francisco Public Utilities Commission Intertie Meeting
<u>3</u>	Bureau of Reclamation Awards \$40 Million for Sacramento River Salmon Habitat Improvements
<u>4</u>	Countywide Water Reuse Master Plan's Project Partner Group Meeting No. 7
<u>5</u>	Execution of \$170 Million Bank Line of Credit with U.S. Bank and Small Local Community Banks
<u>6</u>	Mass Soil Offhaul Activities Resume at the Permanente Creek Flood Protection Project for the Rancho San Antonio Detention Basin Project
<u>7</u>	Office supplies distribution for Valley Water employees
<u>8</u>	Safe, Clean Water Grant Closeout: Frontier Energy, Inc Fisher Nickel FY17 A2 Dipper Well Replacement Project
<u>9</u>	Update on Valley Water Response to PFAS
<u>10</u>	Valley Water Mercury Study Published in Scientific Journal

1. Amendment to California Universal Waste Regulations

Last month, California's Department of Toxic Substances Control (DTSC) officially added photo-voltaic (PV) modules, better known as solar panels, to the state universal waste system. Effective January 1, 2021, solar panels will be allowed to be managed and recycled more easily throughout the state. By adding solar panels to the state universal waste regulations, state regulators hope to encourage proper waste disposal, reduce waste abandonment, and increase cost savings for PV module waste generators.

California's universal waste program will now cover eight items: batteries, electronic devices, mercury-containing equipment, lamps, cathode-ray tubes (CRT), CRT glass, aerosol cans, and solar panels. Currently, solar panels fall under the state's hazardous waste regulations primarily due to their glass and metal components. Solar panels can be made of palladium, silver, nickel, copper, or cadmium. When not disposed of properly, these metals can leach into the soil and groundwater. For public safety and to protect the environment, the state classified end-of-life solar panels as a hazardous waste in 2015. The DTSC has cited these stringent regulations as a significant burden on generators that creates a disincentive for proper disposal of solar panel waste.

Due to concerns of improper disposal, as well as the low risk posed by solar panels, the DTSC moved forward with streamlining the solar panel waste collection and treatment to meet California's universal waste requirements. The DTSC has cited the successful inclusion of "electronic waste" to the universal waste requirements as a positive sign that solar panel inclusion will also be a win for waste generators, handlers, and transporters.

For further information, please contact Tina Yoke at (408) 630-2385.

2. Annual Valley Water-San Francisco Public Utilities Commission Intertie Meeting

On October 22, 2020, Valley Water and the San Francisco Public Utilities Commission (SFPUC) participated in their annual meeting to discuss the Valley Water-SFPUC Intertie facility (Intertie). The Intertie comprises a pipeline and pump station connecting Valley Water's Milpitas Pipeline to SFPUC's Bay Division Pipeline Nos. 3 and 4. The Intertie allows for up to 40 million gallons per day to be conveyed to or from Valley Water and SFPUC systems during critical or emergency situations.

The meeting included discussions about past and planned operations and maintenance, successes in regulatory compliance, and administrative items. Of particular focus was our agencies' continued coordination on future system shutdowns that may compel use of the Intertie to provide water supply for each agency. SFPUC informed Valley Water of its plans to shut down key parts of its water supply system for extended periods in each of the next six years. Valley Water committed to working closely with SFPUC to ensure the continued water supply reliability of both agencies' systems.

For further information, please contact Bhavani Yerrapotu at (408) 630-2735.

3. Bureau of Reclamation Awards \$40 Million for Sacramento River Salmon Habitat Improvements

The Bureau of Reclamation (Reclamation) recently awarded \$40 million in funding to four projects in the Sacramento River that will improve spawning and rearing habitat for Chinook salmon. These projects will receive \$10 million each over a five-year period and were selected through a competitive process. The projects were identified in Central Valley Project Improvement Act (CVPIA) workplans, but funds had not previously been awarded to those that would carry them out. These are paid for via the Central Valley Project (CVP) Restoration Fund, which uses revenue generated from CVP water and power customers to carry out fish and wildlife projects. Valley Water has contributed to the CVP Restoration Fund every year since 1994, and in the last three years has contributed an average of \$2.3 million annually.

The funding for the projects was awarded to Glen-Colusa Irrigation District, Reclamation District 108, River Partners, and Chico State Enterprises. Glen-Colusa Irrigation District will increase salmon's access to rearing habitat through the implementation of seven habitat restoration actions. Reclamation District 108 will restore habitat through gravel augmentation and side channel restoration. River Partners, a non-profit organization, will improve spawning and rearing habitat in six locations, including floodplains. Chico State Enterprises, an organization of CSU Chico, will focus on restoration along the Battle Creek confluence.

Along with the recently allocated \$50 million in state dollars via Prop 68 Grants, this funding will contribute to healthier conditions for Chinook salmon, which in turn helps protect the water supply reliability for Valley Water. Reclamation's press release can be viewed here:

<https://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=73047#:~:text=%E2%80%93%20The%20Bureau%20of%20Reclamation%20announces,projects%20along%20the%20Sacramento%20River.>

For further information, please contact Vincent Gin at (408) 630-2633.

4. Countywide Water Reuse Master Plan's Project Partner Group Meeting No. 7

The Project Partner Group (PPG) is an integral part of Valley Water's robust engagement with various interest groups involved in the Countywide Water Reuse Master Plan (CoRe Plan). PPG Meeting No. 7 was held on October 27, 2020. The PPG meeting attendees are primarily Partner Agencies including San Francisco Public Utility Commission and the four non-potable reuse producers in the County: City of Palo Alto/City of Mountain View Recycled Water System (RWS), City of Sunnyvale RWS, City of San José/City of Santa Clara South Bay Water Recycling, and South County Regional Wastewater Authority.

The CoRe Plan is being developed incrementally with stakeholder input on interim deliverables that build on one another and will collectively form the basis for the final CoRe Plan report aimed for completion in early 2021. PPG Meeting No. 7 presented the participants with an opportunity to view the latest version of the CoRe Plan titled "Draft Final Countywide Water Reuse Master Plan" and provide input and feedback. The Project Partners acknowledged and expressed their appreciation for Valley Water's leadership in developing the CoRe Plan and for having the forward thinking vision of developing more reliable, drought-resistant, and sustainable water supply for the county and the future residents.

Valley Water will be working closely with the Project Partners to solicit their written comments on the Draft Final CoRe Plan to ensure their valuable input and feedback are captured accurately. Meanwhile, a meeting summary of PPG No. 7 is being developed and will be presented to the Recycled Water Committee on November 20, 2020.

For further information, please contact Jerry De La Piedra at (408) 630-2257.

5. Execution of \$170 Million Bank Line of Credit with U.S. Bank and Small Local Community Banks

On October 30, 2020, Valley Water closed on a \$170 million syndicated revolving line of credit with U.S. Bank and three small local community banks. U.S. Bank is the lead bank and will act as the agent to administer the syndicated loan with the following credit allocations: (1) U.S. Bank \$150 million; (2) Bank of San Francisco \$7 million; (3) Community Bank of the Bay \$5 million; and (4) First Foundation Bank \$8 million. The line of credit has a three-year term through October 27, 2023, with renewal options pursuant to Board Resolution 20-11 adopted by the Valley Water Board on April 28, 2020. The estimated true interest cost of the credit facility is between 0.574% - 1.557%, or between \$0.9 to \$2.4 million per year to depending on the amount and timing of any draws and future market conditions. This credit facility ensures that Valley Water will have ample liquidity to continue funding ongoing capital projects and meet general financing needs despite the economic uncertainties related to the ongoing Covid19 pandemic. The successful transaction was a result of the Board's strong leadership and fiscally prudent executive management team.

For further information, please contact Darin Taylor at (408) 630-3068.

6. Mass Soil Offhaul Activities Resume at the Permanente Creek Flood Protection Project for the Rancho San Antonio Detention Basin Project

The contractor (Granite) at the Rancho San Antonio Detention Basin Project (Project) has worked diligently to find suitable sites that will accept the excess soil from the Project. Starting on November 2, 2020, trucks began offhauling approximately 12,000 cubic yards of soil to the first of two sites that would accept the soil. The remaining soil, approximately 18,000 cubic yards, will be offhauled to another site beginning November 9, 2020. Offhaul activities are anticipated to be completed by the end of November 2020, pending minimal weather delays and no other unexpected discoveries or challenges.

Once all the excess soil has been removed from the site, fence work, trail restoration, mitigation plantings, and miscellaneous punch-list items will commence, barring any delays from inclement weather.

For further information, please contact Rechelle Blank at (408) 630-2615.

7. Office supplies distribution for Valley Water employees

Valley Water distributed frequently ordered office supplies and Valley Water logo reusable face coverings to employees. The distribution occurred over the period of 3-weeks, on Mondays and Wednesdays, starting September 21, 2020, through October 7, 2020, from 9 AM to 2 PM.

A total of approximately two-hundred and seventy employees, with several of these employees picking up supplies for their respective units, participated in picking up office supplies and face coverings. Throughout the duration of the distribution period, COVID-related safety protocols were adhered to, such as social distancing.

Due to the success of the office supplies distribution, Valley Water will continue to hold the office supplies distribution on a regularly recurring basis to support the Valley Water team.

For further information, please contact Tina Yoke at (408) 630-2385.

8. Safe, Clean Water Grant Closeout: Frontier Energy, Inc Fisher Nickel FY17 A2 Dipper Well Replacement Project

Frontier Energy, Inc. received a \$37,500 Safe, Clean Water Program Fiscal Year 2017 A2 Grant agreement for the Dipper Well Replacement Project (Agreement No. A4079R). The agreement began on June 16, 2017 and was completed on December 31, 2019.

Dipper wells are pieces of commercial kitchen equipment designed to rinse and sanitize serving utensils in cafeterias, grocery stores, and ice cream shops. In California, there are approximately 100,000 dip wells, each utilizing up to 500 gallons of freshwater per day. The Dipper Well Replacement Project seeks to determine the water-saving potential of three replacement technologies through direct field replacements.

The three technologies evaluated include: 1) Lolsberg i.ScoopShower, a pressure-activated switch system, 2) ConserveWell Heated Utensil Holder, an electric heated basin system that doesn't require continuously flowing water, and 3) Rinsewell Smart Eco-Rinse, a system that recirculates water through a dissolved ozone generator. The field monitoring study included five different locations with wide-ranging operating conditions and situations.

This study's goal was to demonstrate that alternative dipper well replacement technologies can be successful in the field. Cost-positive and yield water savings research will be shared with commercial foodservice facilities to bring awareness of the benefits of using the dipper well technologies examined in this study.

Key Outcomes:

Location #1: Stanford University Jamba Juice

- Technology used: Lolsberg i.ScoopShower/ConserveWell Heated Utensil Holder
- Water savings: 47.25 gal/d

Location #2: Stanford Florence Moore Dining Commons

- Technology used: Rinsewell Smart Eco-Rinse
- Water savings: 222 gal/d

Location #3: Il Fornaio Restaurant Santa Clara

- Technology used: ConserveWell Heated Utensil Holder
- Water savings: 250 gal/d

Location #4: Il Fornaio Restaurant San Jose

- Technology used: ConserveWell Heated Utensil Holder
- Water savings: 598 gal/d

Location #5: Corporate Cafe

- Technology used: ConserveWell Heated Utensil Holder
- Water savings: 166 gal/d

For further information, please contact Marta Lugo at (408) 630-2237.

9. Update on Valley Water Response to PFAS

On October 29, 2020, Valley Water met with San Jose Water Company, the San Francisco Bay Regional Water Quality Control Board, and the Division of Drinking Water to discuss the impact of PFAS (Per- and Polyfluoroalkyl Substances) on water supply wells and the Santa Clara Subbasin. As reported in previous CEO Bulletins and the August 11, 2020 Board update, San Jose Water Company has taken ten wells offline due to the presence of PFAS.

The goal of the recent meeting was to develop a coordinated approach to better understand and address PFAS. The meeting resulted in a robust discussion of the impacts of PFAS in the Santa Clara Subbasin and the role of each organization. The four organizations will continue to collaborate to identify potential PFAS sources, impact, and appropriate actions, and will ensure continued progress through quarterly meetings.

For further information, please contact Greg Williams at (408) 630-2867.

10. Valley Water Mercury Study Published in Scientific Journal

Valley Water, along with colleagues from UC Merced and the San Francisco Bay Regional Water Quality Control Board, recently published results from Valley Water's 15-year mercury study in the respected journal *Environmental Pollution*. The article presents a statistical evaluation of the effectiveness of line-diffuser oxygenation systems in reducing methylmercury in water and fish of Almaden, Calero, Guadalupe, and Stevens Creek reservoirs. The study methods and findings made it through a rigorous editorial review by some of our nation's mercury experts. Valley Water's work will have far-reaching impacts, informing reservoir mercury management around the world.

The article was published open access, and can be downloaded here:

<https://www.sciencedirect.com/science/article/pii/S0269749120364484?via%3Dihub>

For further information, please contact Lisa Bankosh at (408) 630-2618.

BOARD MEMBER REQUESTS and Informational Items

Report Name: Board Member Requests

Request	Request Date	Director	BAO/Chief	Staff	Description	20 Days Due Date	Expected Completion Date	Disposition
I-20-0014	08/20/20	Kremen Santos	Yoke	Gordon	Director Kremen requested staff to take a look at the potential of hiring private fire fighting organization to protect the Penitenia WTP. In addition, Director Santos requested information on whether any consideration has been given to installing fire suppression sprinklers on the perimeter or other effective location on WTPs. Copies of both email requests are attached below.	09/10/20		



MEMORANDUM

FC 14 (08-21-19)

TO: Board of Directors

FROM: Aaron Baker

SUBJECT: Coordination Efforts with CAL FIRE on
Anderson Reservoir Water Drawdown

DATE: 11/02/2020

Please see original letter with attachments that was recently sent to CAL FIRE regarding the Anderson Reservoir Drawdown. Valley Water also sent the letter via email and received a confirmation of receipt from CAL FIRE on October 19, 2020. A follow up meeting with CAL FIRE and Valley Water staff occurred on November 2, 2020.

A handwritten signature in blue ink that reads "Aaron Baker".

Aaron Baker, P.E.
Chief Operating Officer
Water Utility Enterprise

Attachment 1: Anderson Reservoir Water Drawdown Letter to CAL FIRE

Attachment 2: Anderson Reservoir Elevation Contours at Deadpool Storage

Attachment 3: Anderson Reservoir Elevation Versus Storage and Surface Area Rating Table

October 13, 2020

Chief Jake Hess
CalFire Santa Clara Unit Chief
15670 Monterey Street
Morgan Hill, CA 95037

Re: Anderson Reservoir Water Drawdown

Dear Chief Hess,

I am writing to inform you that, starting October 1, 2020, the Santa Clara Valley Water District (Valley Water) began drawing down Anderson Reservoir in Morgan Hill to elevation 488 feet, or deadpool, as part of the planned ten-year removal and replacement of Anderson Dam. The drawdown of the reservoir complies with a seismic safety order by the Federal Energy Regulatory Commission, issued on February 20, 2020. The reservoir is expected to reach the prescribed water level as soon as December 2020 in the case of a dry fall season, or as late as June 2021 in the case of a very wet rainy season.

At elevation 488 feet (NAVD88 datum), some water will remain stored behind Anderson Dam. This storage is known as deadpool, which is the lowest storage that the reservoir can reach using the existing outlet pipe. The deadpool behind Anderson Dam holds approximately 3,000 acre-feet of water, which corresponds to three percent (3%) of the total storage in Anderson Reservoir when full. Anderson's deadpool is not small and can provide ample water for firefighting purposes. Anderson's deadpool is equivalent to the full capacity of Stevens Creek Reservoir in Cupertino and nearly twice the size of Almaden Reservoir in San Jose. Bathymetric maps of the reservoir at deadpool are included as Attachment 1. The bathymetry of the reservoir is also represented in Attachment 2 as a rating table showing the reservoir's storage volume and surface area at various water surface elevations.

Anderson Reservoir is expected to remain near deadpool level through the end of 2023 while Valley Water constructs a low-level outlet tunnel. Storage may recede due to evaporation or be temporarily exceeded during storm events. Beginning in 2024, the remaining deadpool storage is expected to be completely drained through a new low-level outlet tunnel, and the reservoir would remain dewatered for the construction of the Anderson Dam Seismic Retrofit Project, likely until 2030. During this time, fire departments and emergency management agencies will be able to use water stored nearby at other Valley Water facilities in the event of fires, including the Coyote Reservoir to the south of Anderson Dam and the Coyote Percolation Pond located on Coyote Creek to the north of Metcalf Road in South San Jose.

Valley Water respectfully requests an opportunity to consult with CalFire about any measures that may be needed to facilitate safe access for collecting water via helicopter when the reservoir is low, and best available supply alternatives during the period of 2024 and 2030 when Anderson Reservoir will be fully dewatered. Staff will contact you to schedule a meeting within the upcoming weeks. We look forward to answering any questions about our project, resolving any remaining concerns, and consulting with you on a plan for the development and implementation of measures to access water safely. If you have any questions about the availability of a water source for firefighting purposes in a specific location, or you need any further information, please contact me at 408-234-8012 or via email at AGordon@valleywater.org.

Valley Water stands ready to support CalFire's firefighting and public safety mission. I encourage you to reach out to me if you would like further information about the timing of the dewatering of Anderson Reservoir, the dam removal and replacement project, or the attached maps and rating table.

Sincerely,

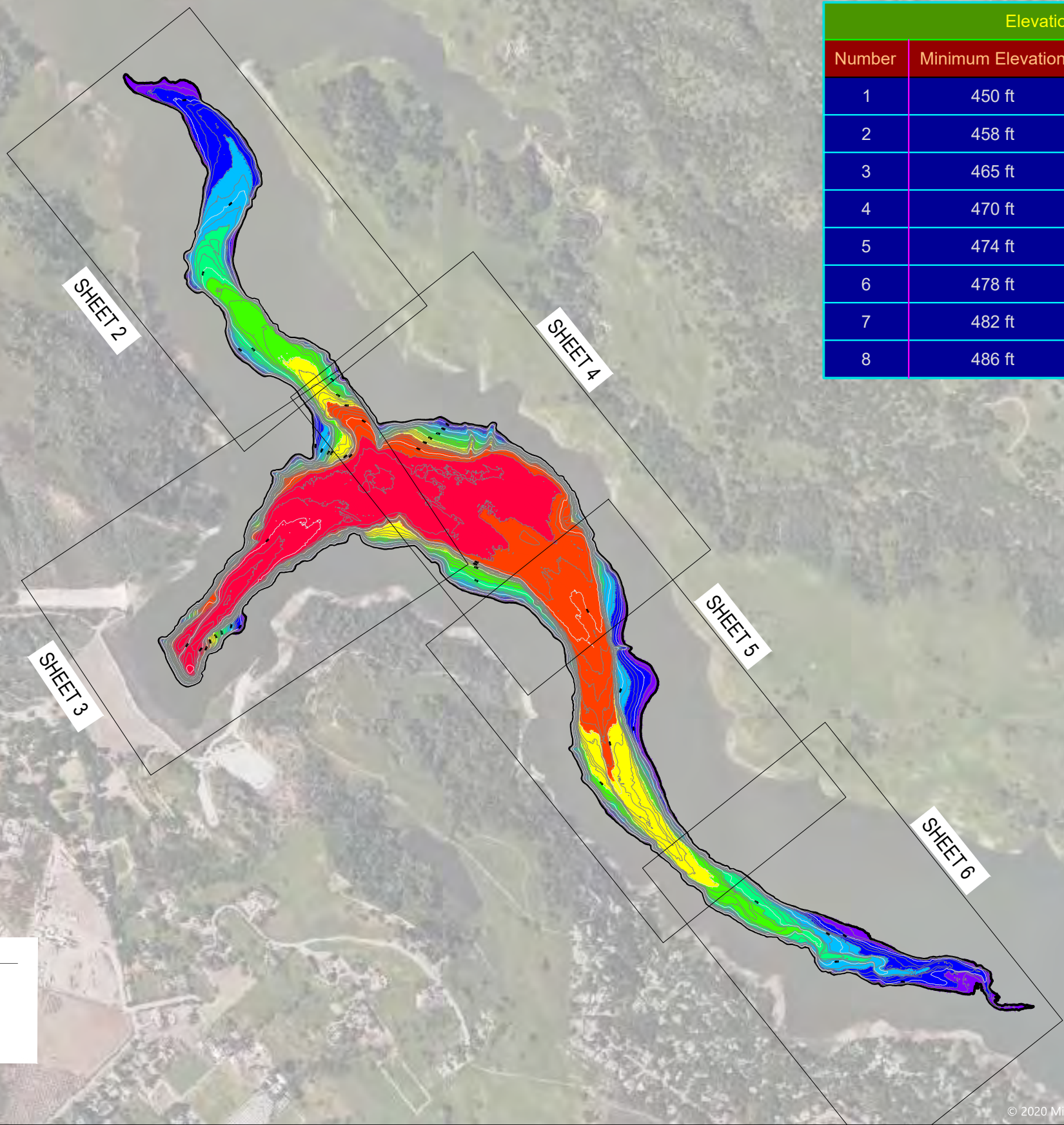
DocuSigned by:
Alexander Gordon
F2AB9ACD18484A6...

Alexander Gordon, CEM
Assistant Officer
Emergency, Security and Safety

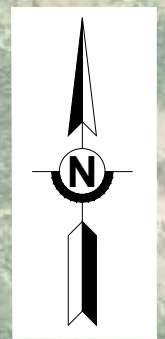
Attachments:

1. Anderson Reservoir Elevation Contours at Deadpool Storage
 2. Anderson Reservoir Elevation Versus Storage and Surface Area Rating Table
- cc: D. Rocha, C. Hakes, G. Williams, B. Kassab

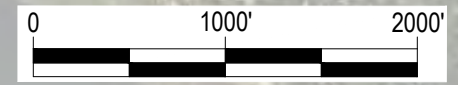
C:\Users\DUJTSUND\Desktop\ReservoirAtDeadPool.dwg



Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	450 ft	458 ft	Red
2	458 ft	465 ft	Orange
3	465 ft	470 ft	Yellow
4	470 ft	474 ft	Light Green
5	474 ft	478 ft	Green
6	478 ft	482 ft	Cyan
7	482 ft	486 ft	Blue
8	486 ft	488 ft	Purple



LEGEND	
	DEADPOOL AT 488'
	MAJOR CONTOUR
	MINOR CONTOUR



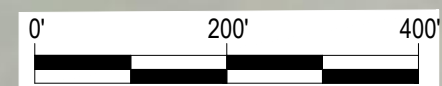
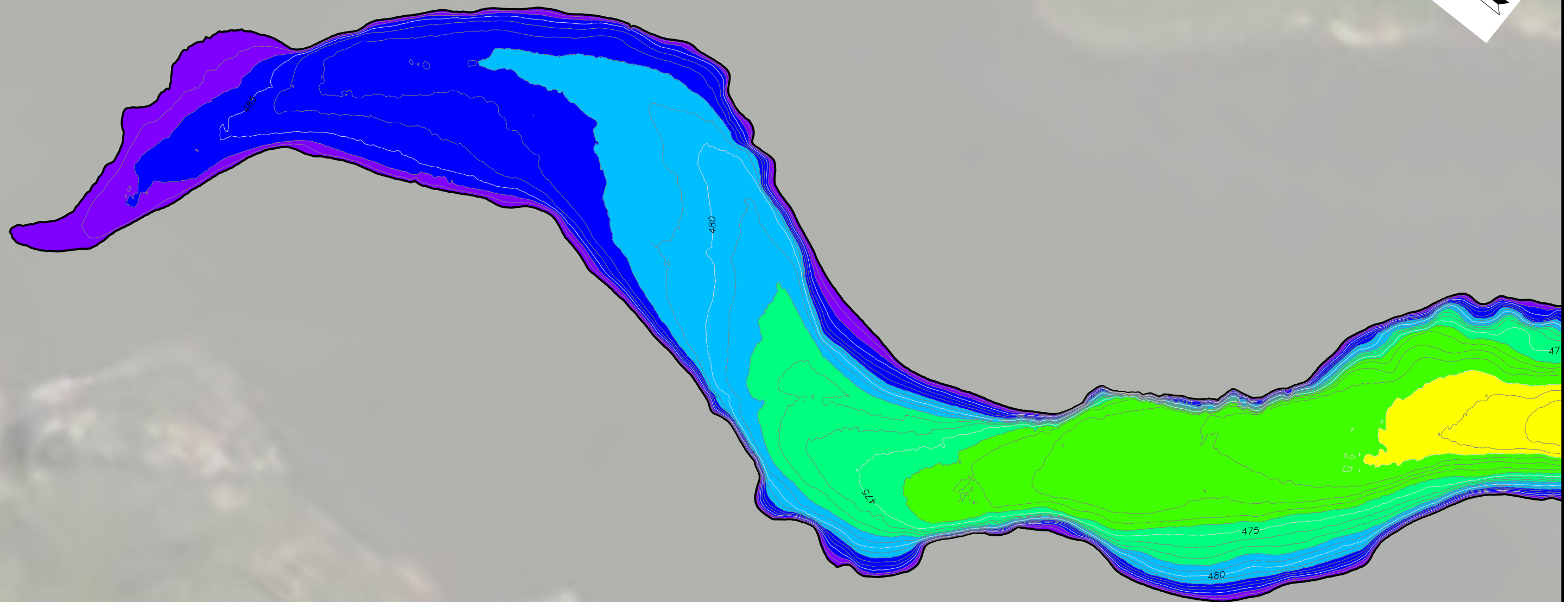
© 2020 Microsoft Corporation © 2020 Maxar © CNES (2020) Distribution Airbus DS

Note: Elevation and Contours are derived from 2017 bathymetry.
Background imagery used is from Bing Maps.



1" = 1000'
ATTACHMENT 1:
 ANDERSON RESERVOIR ELEVATION CONTOURS: DEADPOOL STORAGE
 ANDERSON DAM TUNNEL PROJECT
 14

91864005	
LSMU Req. NO.	2020_148
Vertical Datum	NAVD88
DRAWN	D. SUNDERMAN
SHEET 1 OF 6	



LEGEND	
	DEADPOOL AT 488'
	MAJOR CONTOUR
	MINOR CONTOUR

C:\Users\DUJTSUND\Desktop\ReservoirAtDeadPool.dwg

Note: Elevation and Contours are derived from 2017 bathymetry.
Background imagery used is from Bing Maps.



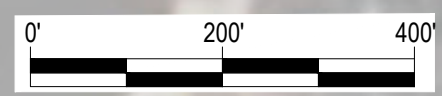
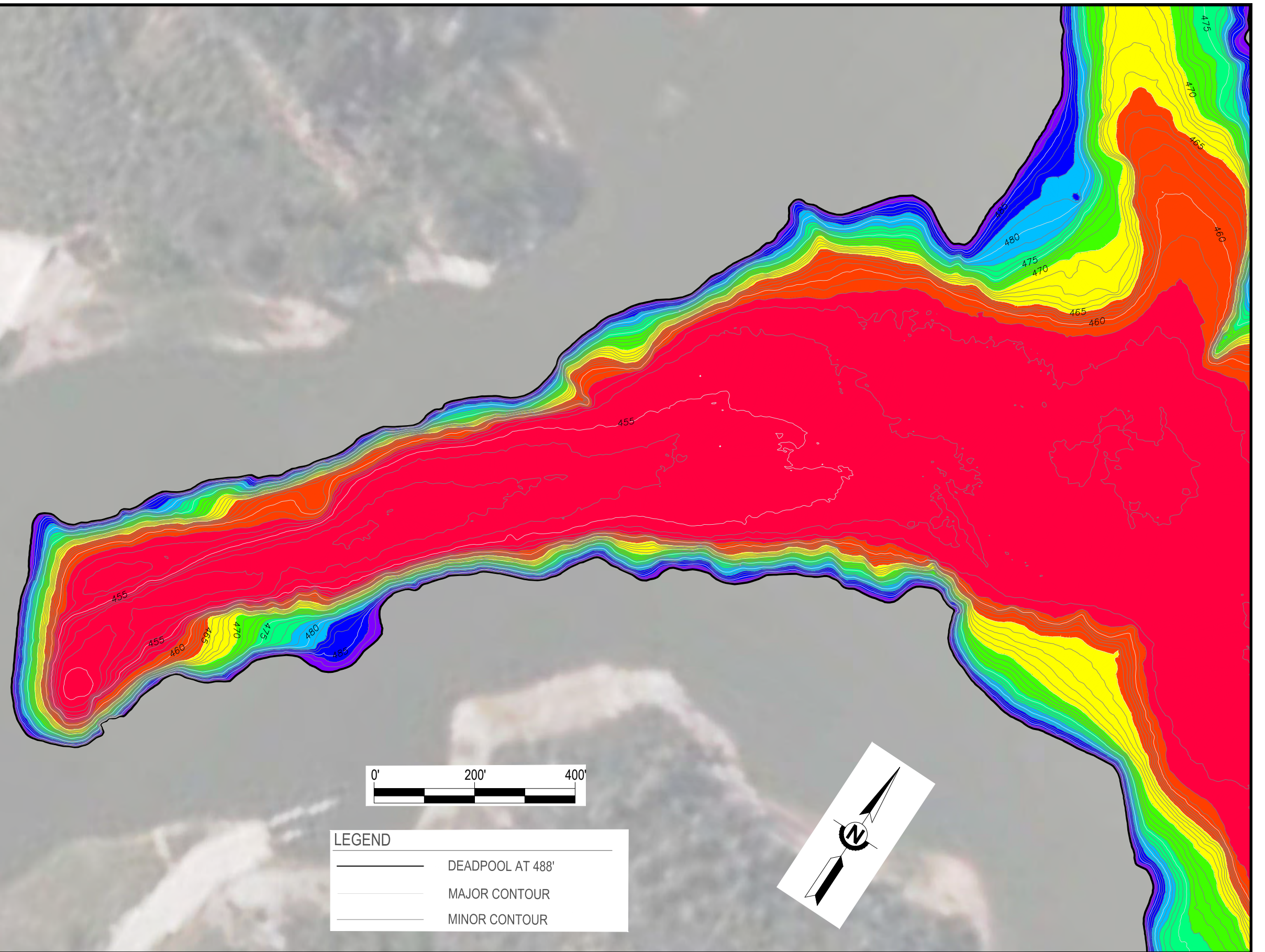
1" = 200'

ATTACHMENT 1:
ANDERSON RESERVOIR ELEVATION CONTOURS: DEADPOOL STORAGE
ANDERSON DAM TUNNEL PROJECT

15

91864005	
LSMU Req. NO.	2020_148
Vertical Datum	NAVD88
DRAWN	D. Sunderman
SHEET 2 OF 6	

C:\Users\DUJTSUND\Desktop\ReservoirAtDeadPool.dwg



LEGEND	
	DEADPOOL AT 488'
	MAJOR CONTOUR
	MINOR CONTOUR



Note: Elevation and Contours are derived from 2017 bathymetry.
Background imagery used is from Bing Maps.

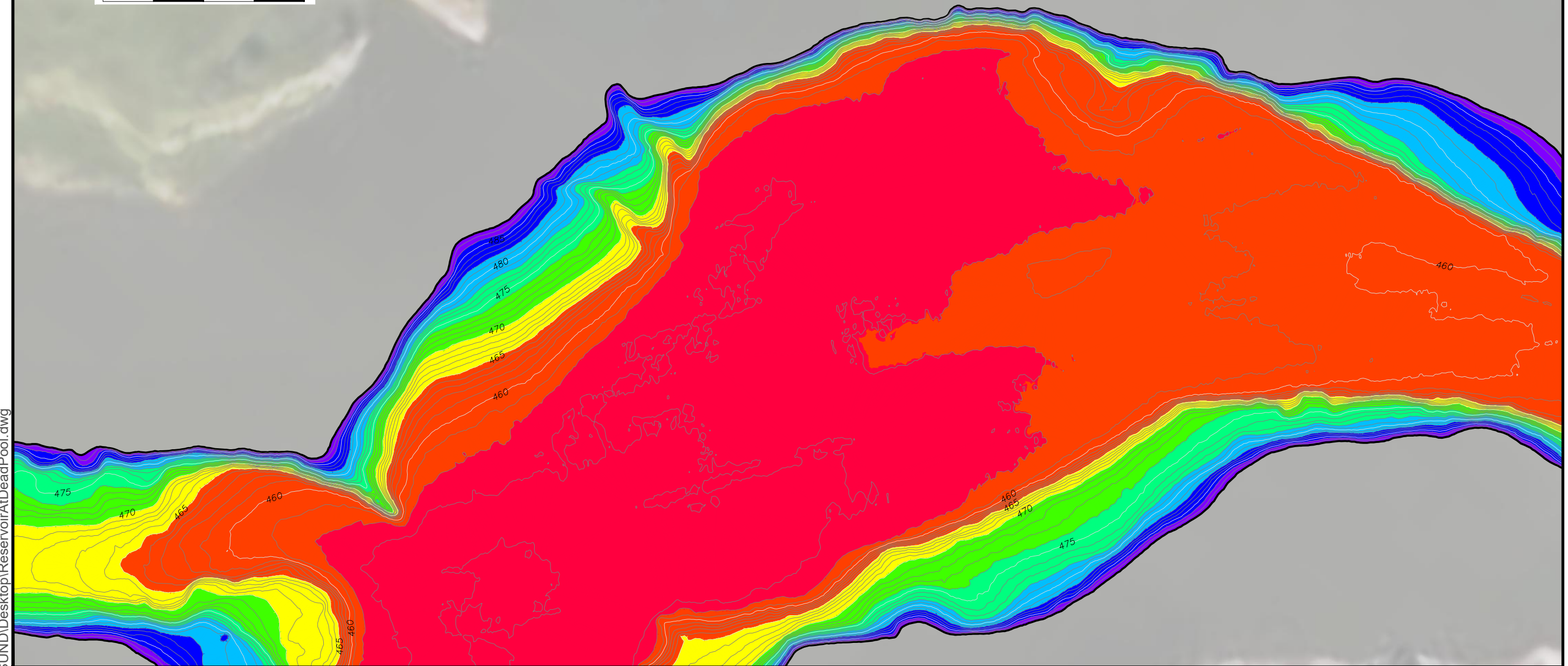


1" = 200'
ATTACHMENT 1:
 ANDERSON RESERVOIR ELEVATION CONTOURS: DEADPOOL STORAGE
 ANDERSON DAM TUNNEL PROJECT
 16

91864005	
LSMU Req. NO.	2020_148
Vertical Datum	NAVD88
DRAWN	D. Sunderman
SHEET 3 OF 6	



LEGEND	
	DEADPOOL AT 488'
	MAJOR CONTOUR
	MINOR CONTOUR



C:\Users\DUJTSUND\Desktop\ReservoirAtDeadPool.dwg

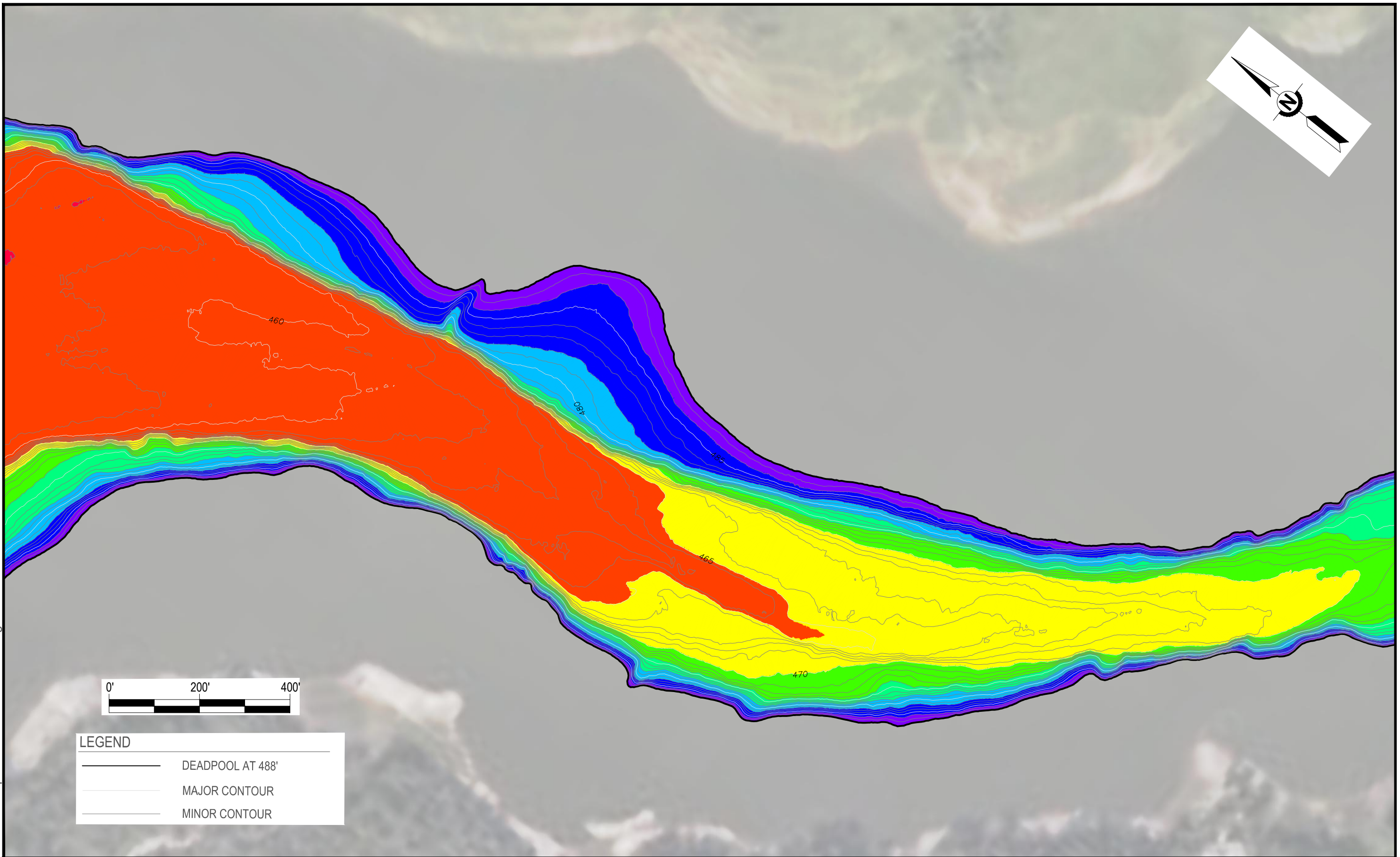
Note: Elevation and Contours are derived from 2017 bathymetry.
Background imagery used is from Bing Maps.



1" = 200'

ATTACHMENT 1:
ANDERSON RESERVOIR ELEVATION CONTOURS: DEADPOOL STORAGE
ANDERSON DAM TUNNEL PROJECT

91864005	
LSMU Req. NO.	2020_148
Vertical Datum	NAVD88
DRAWN	D. Sunderman
SHEET 4 OF 6	



LEGEND	
	DEADPOOL AT 488'
	MAJOR CONTOUR
	MINOR CONTOUR

C:\Users\DUJTSUND\Desktop\ReservoirAtDeadPool.dwg



Note: Elevation and Contours are derived from 2017 bathymetry.
Background imagery used is from Bing Maps.

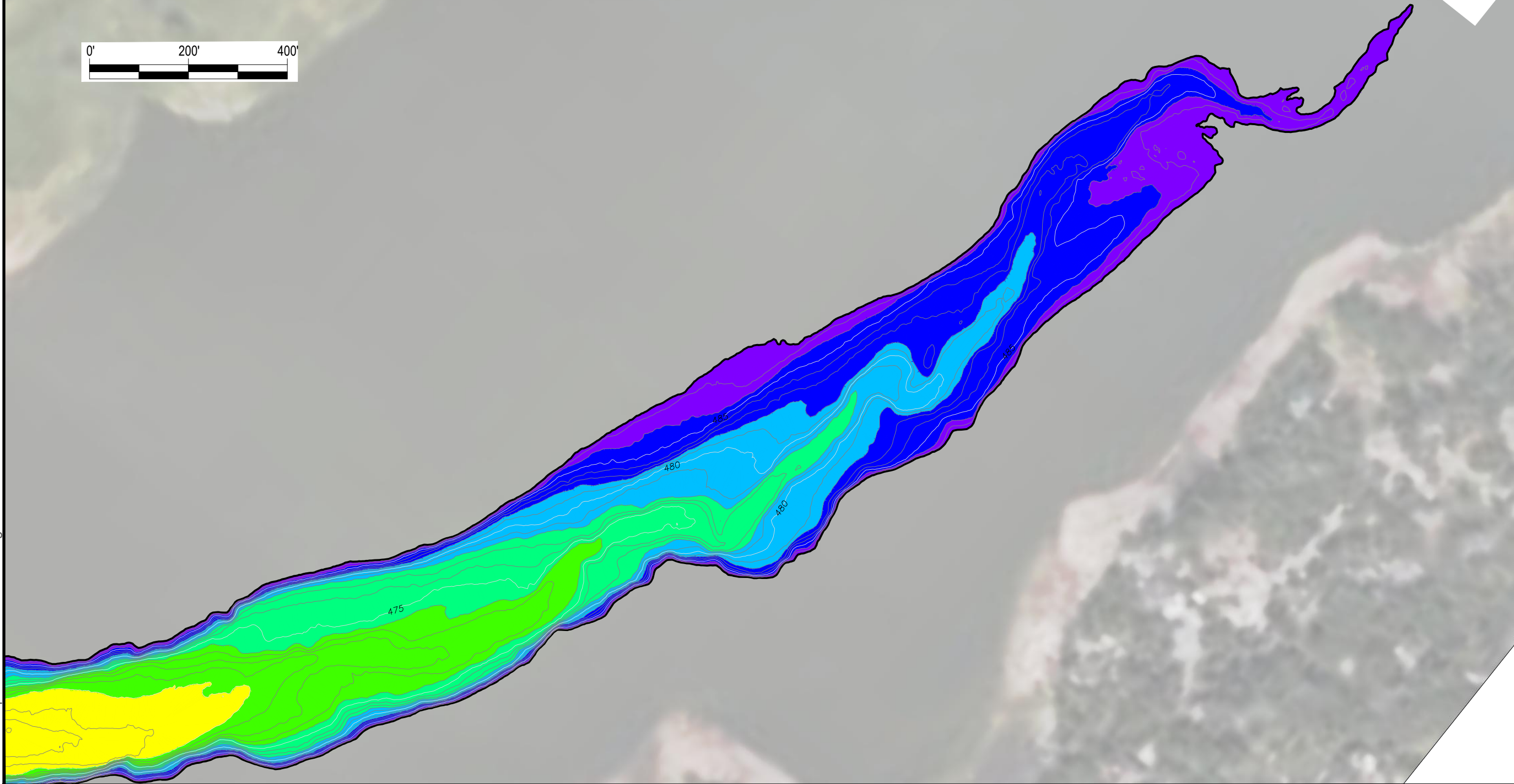
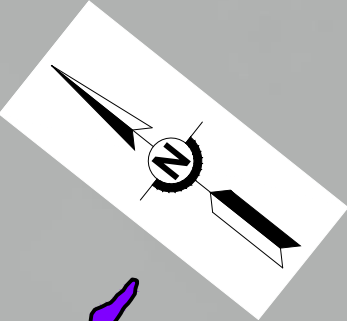
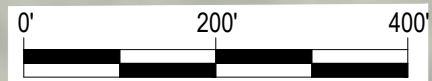


1" = 200'

ATTACHMENT 1:
ANDERSON RESERVOIR ELEVATION CONTOURS: DEADPOOL STORAGE
ANDERSON DAM TUNNEL PROJECT

91864005	
LSMU Req. NO.	2020_148
Vertical Datum	NAVD88
DRAWN	D. Sunderman
SHEET 5 OF 6	

LEGEND	
	DEADPOOL AT 488'
	MAJOR CONTOUR
	MINOR CONTOUR



C:\Users\DUJTSUND\Desktop\ReservoirAtDeadPool.dwg

Note: Elevation and Contours are derived from 2017 bathymetry.
Background imagery used is from Bing Maps.



1" = 200'
19

ATTACHMENT 1:
ANDERSON RESERVOIR ELEVATION CONTOURS: DEADPOOL STORAGE
ANDERSON DAM TUNNEL PROJECT

91864005	
LSMU Req. NO.	2020_148
Vertical Datum	NAVD88
DRAWN	D. Sunderman
SHEET 6 OF 6	

Attachment 2

Anderson Reservoir Elevation Versus Storage and Surface Area Rating Table

Anderson Rating Table (part 1 of 3)			
Elevation in Local Datum (feet)	Elevation in NAVD88 Datum (feet)	Storage Volume (acre-feet)	Surface Area (acres)
447	449.8	0	0
448	450.8	0.1	0.2
449	451.8	0.4	0.5
450	452.8	1.5	1.7
451	453.8	4	3
452	454.8	8	6
453	455.8	16	9
454	456.8	29	19
455	457.8	56	34
456	458.8	96	45
457	459.8	144	52
458	460.8	198	56
459	461.8	255	59
460	462.8	315	61
461	463.8	378	63
462	464.8	442	65
463	465.8	508	68
464	466.8	578	71
465	467.8	650	74
466	468.8	725	76
467	469.8	803	79
468	470.8	884	83
469	471.8	969	87
470	472.8	1,058	91
471	473.8	1,150	94
472	474.8	1,246	97
473	475.8	1,344	100
474	476.8	1,446	103
475	477.8	1,551	107
476	478.8	1,659	110
477	479.8	1,771	113
478	480.8	1,886	117
479	481.8	2,005	121
480	482.8	2,129	127
481	483.8	2,258	131
482	484.8	2,391	136
483	485.8	2,530	140
484	486.8	2,672	145
485	487.8	2,820	149
486	488.8	2,971	154
487	489.8	3,127	158
488	490.8	3,287	162
489	491.8	3,452	166
490	492.8	3,620	170
491	493.8	3,793	176
492	494.8	3,971	180
493	495.8	4,154	185
494	496.8	4,341	190
495	497.8	4,533	194
496	498.8	4,729	199
497	499.8	4,930	204
498	500.8	5,137	210
499	501.8	5,349	215
500	502.8	5,567	220
501	503.8	5,790	227
502	504.8	6,020	233
503	505.8	6,257	240
504	506.8	6,500	247
505	507.8	6,750	253
506	508.8	7,006	259

Anderson Rating Table (part 2 of 3)			
Elevation in Local Datum (feet)	Elevation in NAVD88 Datum (feet)	Storage Volume (acre-feet)	Surface Area (acres)
507	509.8	7,269	266
508	510.8	7,537	272
509	511.8	7,813	279
510	512.8	8,095	286
511	513.8	8,384	292
512	514.8	8,679	298
513	515.8	8,982	306
514	516.8	9,291	313
515	517.8	9,608	320
516	518.8	9,932	327
517	519.8	10,262	334
518	520.8	10,599	340
519	521.8	10,941	345
520	522.8	11,289	351
521	523.8	11,642	356
522	524.8	12,001	362
523	525.8	12,366	367
524	526.8	12,735	372
525	527.8	13,111	378
526	528.8	13,491	383
527	529.8	13,877	389
528	530.8	14,269	394
529	531.8	14,666	400
530	532.8	15,069	407
531	533.8	15,479	414
532	534.8	15,896	421
533	535.8	16,320	427
534	536.8	16,751	434
535	537.8	17,187	440
536	538.8	17,631	447
537	539.8	18,081	454
538	540.8	18,539	461
539	541.8	19,004	469
540	542.8	19,478	477
541	543.8	19,958	484
542	544.8	20,446	491
543	545.8	20,941	498
544	546.8	21,442	505
545	547.8	21,950	511
546	548.8	22,464	518
547	549.8	22,985	524
548	550.8	23,513	531
549	551.8	24,046	537
550	552.8	24,587	544
551	553.8	25,134	550
552	554.8	25,686	556
553	555.8	26,246	563
554	556.8	26,811	569
555	557.8	27,383	575
556	558.8	27,962	582
557	559.8	28,547	588
558	560.8	29,138	595
559	561.8	29,736	601
560	562.8	30,340	607
561	563.8	30,951	615
562	564.8	31,570	622
563	565.8	32,195	628
564	566.8	32,826	634
565	567.8	33,464	642
566	568.8	34,110	651

Anderson Rating Table (part 3 of 3)			
Elevation in Local Datum (feet)	Elevation in NAVD88 Datum (feet)	Storage Volume (acre-feet)	Surface Area (acres)
567	569.8	34,765	659
568	570.8	35,428	667
569	571.8	36,100	675
570	572.8	36,779	683
571	573.8	37,466	691
572	574.8	38,161	698
573	575.8	38,863	705
574	576.8	39,572	713
575	577.8	40,289	721
576	578.8	41,014	729
577	579.8	41,747	737
578	580.8	42,488	745
579	581.8	43,237	752
580	582.8	43,993	774
581	583.8	44,772	783
582	584.8	45,559	791
583	585.8	46,354	799
584	586.8	47,158	809
585	587.8	47,971	818
586	588.8	48,795	829
587	589.8	49,630	840
588	590.8	50,476	852
589	591.8	51,333	863
590	592.8	52,202	874
591	593.8	53,082	885
592	594.8	53,972	895
593	595.8	54,872	906
594	596.8	55,783	916
595	597.8	56,704	926
596	598.8	57,636	937
597	599.8	58,578	947
598	600.8	59,530	958
599	601.8	60,494	969
600	602.8	61,466	977
601	603.8	62,447	985
602	604.8	63,437	996
603	605.8	64,439	1,007
604	606.8	65,451	1,018
605	607.8	66,474	1,029
606	608.8	67,508	1,040
607	609.8	68,554	1,051
608	610.8	69,611	1,063
609	611.8	70,681	1,075
610	612.8	71,761	1,086
611	613.8	72,852	1,095
612	614.8	73,951	1,105
613	615.8	75,062	1,116
614	616.8	76,184	1,128
615	617.8	77,317	1,139
616	618.8	78,462	1,151
617	619.8	79,619	1,162
618	620.8	80,786	1,174
619	621.8	81,966	1,185
620	622.8	83,156	1,196
621	623.8	84,358	1,207
622	624.8	85,571	1,219
623	625.8	86,795	1,230
624	626.8	88,031	1,242
625	627.8	89,278	1,253

*488 feet (NAVD88) is the FERC restriction limit, with a deadpool storage of about 2,820 acre-feet

**Reservoir is considered full at spillway level, which is 627.8 feet (NAVD88)

Note: Based on current survey

INCOMING BOARD CORRESPONDENCE