IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT

OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, an Idaho limited liability company, Petitioner, v. THE IDAHO DEPARTMENT OF WATER RESOURCES, Respondent, and CITY OF BOISE, Intervenor.	Case No. CV01-24-04576
IN THE MATTER OF APPLICATION FOR PERMIT NO. S63-21092 IN THE NAME OF BOISE RIVER OUTDOOR OPPORTUNITIES	

SETTLED AGENCY RECORD ON APPEAL

Judicial Review from the Idaho Department of Water Resources
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Technical Memorandum

To:	Sara Arkle, City of Boise Jim Pardy City of Boise	Project:	City of Boise Waterpark Waveshaper Redesign
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Date:	September 27, 2023		
Subject:	Drop 1 Hydraulic Analysis		

Revision Log

Revision No.	Date	Revision Description
0	September 27, 2023	75% Design

1.0 Introduction

This Technical Memorandum (TM) presents the results of hydraulic analyses related to proposed structure modifications for the new J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase II (Project).

1.1 Purpose

The purpose of this TM is to present results of hydraulic analyses based on the proposed scope of modification to the Project which includes enhancements of the main spillway, modifications to the existing waveshaper to improve tailwater control and hydraulic jump stability, modifications to the controls vault, relocation of stilling wells, and miscellaneous updates to project features that address current challenges associated with the operation of the Project. Most relevant to the hydraulic analyses are the enhancements of the main spillway and modifications to the existing waveshaper.

EXHIBIT
A

2.0 Summary of Proposed Modifications

The proposed modifications to the Project include the following elements which have direct impact on the hydraulics of the structure. These modifications were developed based on the operational issues identified and summarized under the previous TM Drop 1 Structure Modifications Scope of Work dated June 6, 2023. (McMillen 2023)

2.1 Spillway Modifications

McMillen proposes to split the current 20-foot-wide Gate 5 and Gate 6 to create four 10-foot-wide gates. A sketch of this concept is shown in Figure 1. This will provide increased flexibility for operations of the main spillway and be valuable in a variety of flow management situations as well as the following benefits:

- The majority of low flow scenarios flow could be managed with only one or two 10-foot-wide spillway gates particularly when the waveshaper is not in operation
- Stray boaters could be guided down the main channel and flushed through the Drop 1 spillway with high velocity.
- Ability to shape flow to the center of the river channel using four smaller gates by having one or two center gates (Gate 6 and Gate 7) down and Gate 5 or Gate 8 partially down.

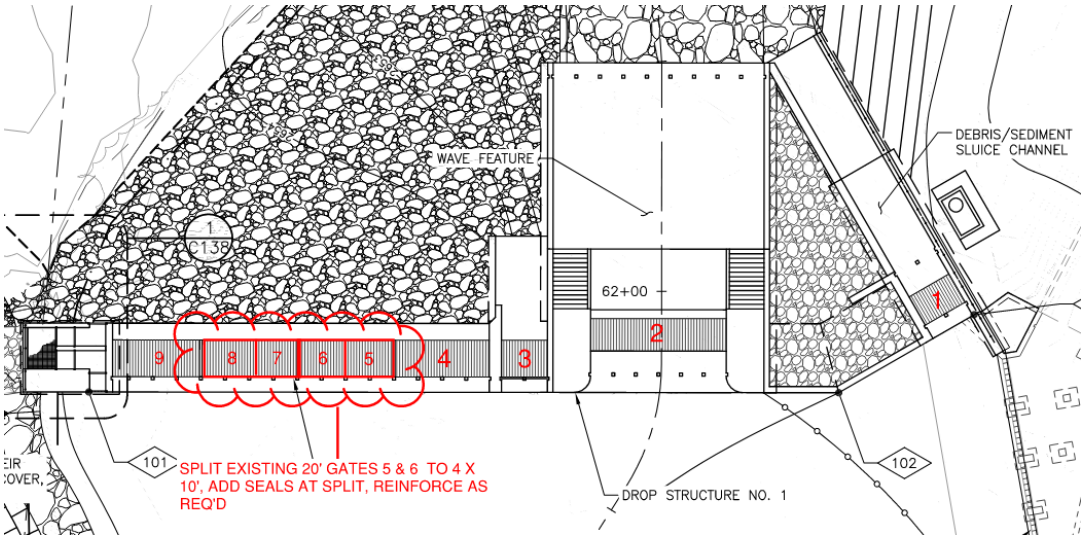


Figure 1 – Proposed Spillway Modifications

The work required to complete the modifications to this feature will include:

- Physical modification of the existing Obermeyer gates. McMillen has confirmed with Obermeyer that it is feasible and the best approach to modify the existing gates.
- Add new piping and wiring in the existing routing path from the control building to the new gates.

- Add additional inclinometers to the new gates to allow independent control of all gates.
- Add two gate control zones to the existing Obermeyer controls gates including new valving, piping and PLC programming.
- Dewatering of the drop structure to allow for construction.

In addition to the structural modifications of the spillway, a 5-feet-deep plunge pool will be excavated downstream of the new 10-feet-wide gates to provide better hydraulic conditions for rafters or tubers that may pass over the modified spillway gate section.

2.2 Waveshaper Modifications

Waveshaper modifications will be focused on downstream control and making the waveshaper less sensitive to changes in the overall river flowrate.

Through an alternatives analysis process, McMillen proposes constructing an adjustable “flip-lip” type feature on a new concrete slab downstream of the waveshaper gate for fine tuning of the tailwater. This feature would be adjustable from the riverbank without dewatering. This structure would consist of a new fully submerged Obermeyer gate downstream of the existing waveshaper structure. In the raised position, the gate would provide additional tailwater depth within the waveshaper feature to improve the operational range. During high river flows, the gate will be lowered to maximize the hydraulic capacity of the main river channel. The new gate would be 4 feet high when fully raised and 40 feet wide. The crest of the new Obermeyer gate when fully raised would be approximately 20 feet downstream of the end of the existing concrete waveshaper slab. Additional details related to the design of the new Obermeyer structure are provided under separate cover in the detailed design drawings.

3.0 Summary of Hydraulic Analyses

3.1 Spillway Gate Empirical Analysis

To assess the changes to the spillway hydraulics following the modification of the two central 20-feet-wide gates into four 10-feet-wide gates, McMillen performed an empirical analysis using a traditional weir equation. A critical assumption included in this analysis is the weir discharge coefficient. The weir coefficient selected for this analysis was based on a relationship of depth over the gate and discharge rate developed for the waveshaper gate. This relationship was estimated based on measurements manually collected at the site in 2019. The developed weir coefficients generally vary between 3.2 and 3.5 for the flow rates and depths evaluated. It is assumed that weir coefficient relationship developed for the waveshaper gate would be similar to that of the spillway gates. The rating curves developed for a 10 foot gate and 20 foot gate are shown in Figure 2.

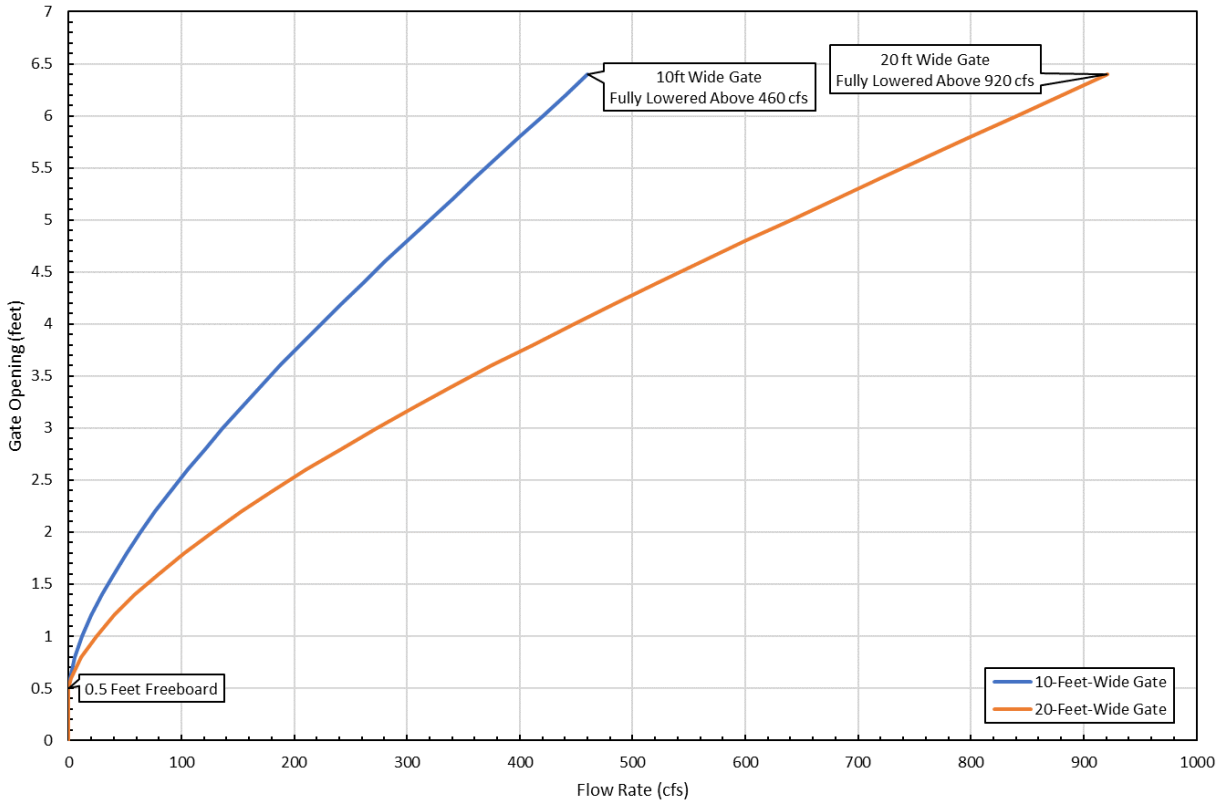


Figure 2 – Comparison of Rating Curves for Singular 10-feet-wide vs 20-feet-wide Gate

As can be seen in this figure, the capacity of a singular 10-feet-wide gate is half that of a 20-feet-wide gate. This leads to a capacity of approximately 460 cfs when a 10-feet-wide gate is fully opened as compared to 920 cfs for a 20-feet-wide gate. Based on these developed rating curves, a full operational curve for all of the spillway gates can be estimated as shown in Figure 3.

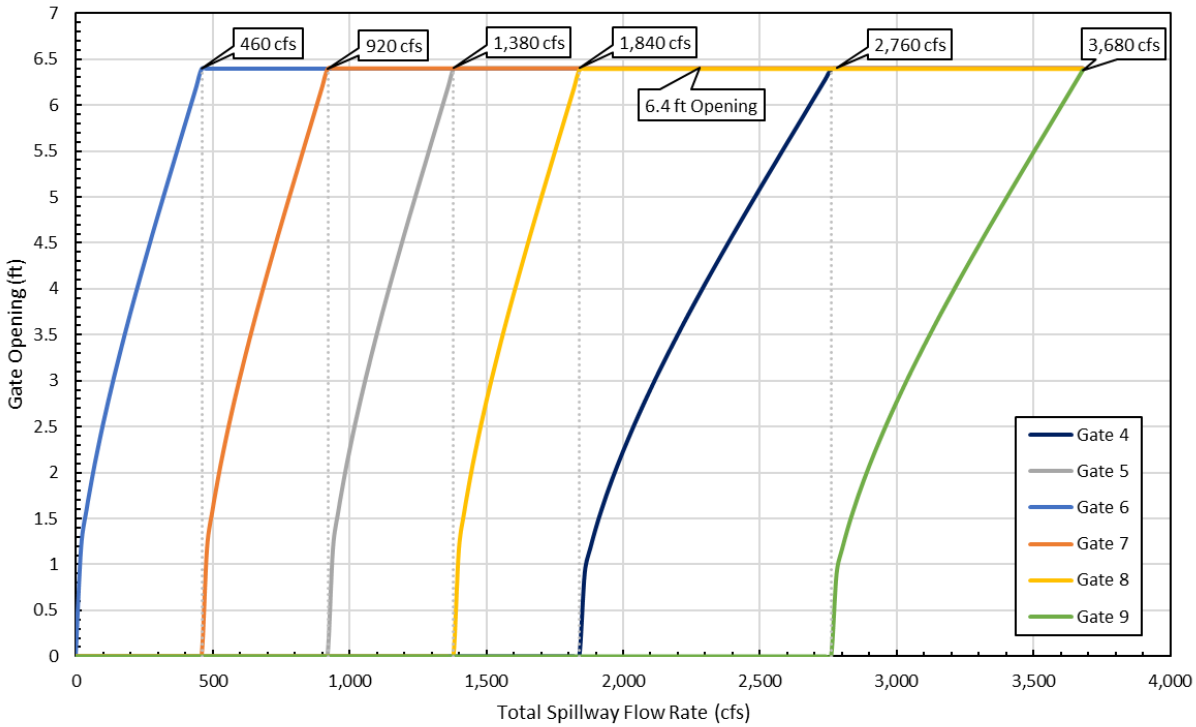


Figure 3 – Overall Spillway Operational Rating Curve

It can be seen in this figure that the modification of two of the 20-feet-wide gates into 10-feet-wide gates provides significantly more operational flexibility.

3.2 Hydraulic Model Setup

To further assess the hydraulics of the drop structure and the proposed modifications, McMillen used computational fluid dynamics (CFD) modeling. The use of a CFD model was instrumental in assessing the hydraulics of the structure due to the dynamic wave hydraulics and complex gate structures. CFD simulations were performed using FLOW3D software (version 22.2.0.17). The CFD model was developed to include a portion of the river upstream of the drop structure, the sluice, waveshaper, tuber gate, spillway, non-overflow sections, and a portion of the river downstream past drop structure 3. The model geometry at drop structure 1 for existing conditions is shown in Figure 4.

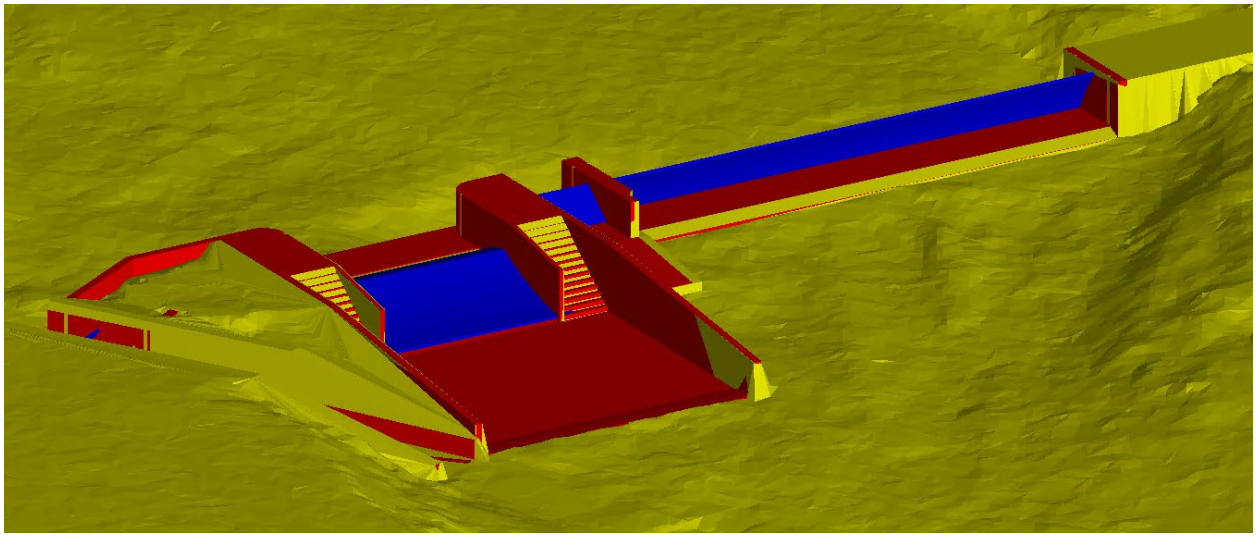


Figure 4 – CFD Model Geometry

Some additional modifications were made to the geometry to remove irregularities from the surveyed surface that did not appropriately represent the as-built conditions of the riverbed. The model domain extended from approximately 60 feet upstream of drop structure 1 to approximately 50 feet downstream of drop structure 3. These extents were selected to place the boundary conditions far enough away from drop structure 1 to not influence the results while also trying to maintain a small and computationally efficient model domain. The model domain was developed using mesh spacings from 0.25 to 1 foot. The smaller mesh spacings were used near the drop structure features to better capture the shallow flow depths as water passes over the gates. The model geometries and mesh were used to develop the mesh-generated Fractional Area Volume Obstacle Representation (FAVOR) geometry in the CFD model. The FAVOR method is used by FLOW3D to represent geometry by smoothly blocking out fractional portions of the grid cells filled with the solid geometry. A comparison of the original CAD geometry and the FAVOR generated geometry at the left side of the spillway approach is shown in Figure 5.

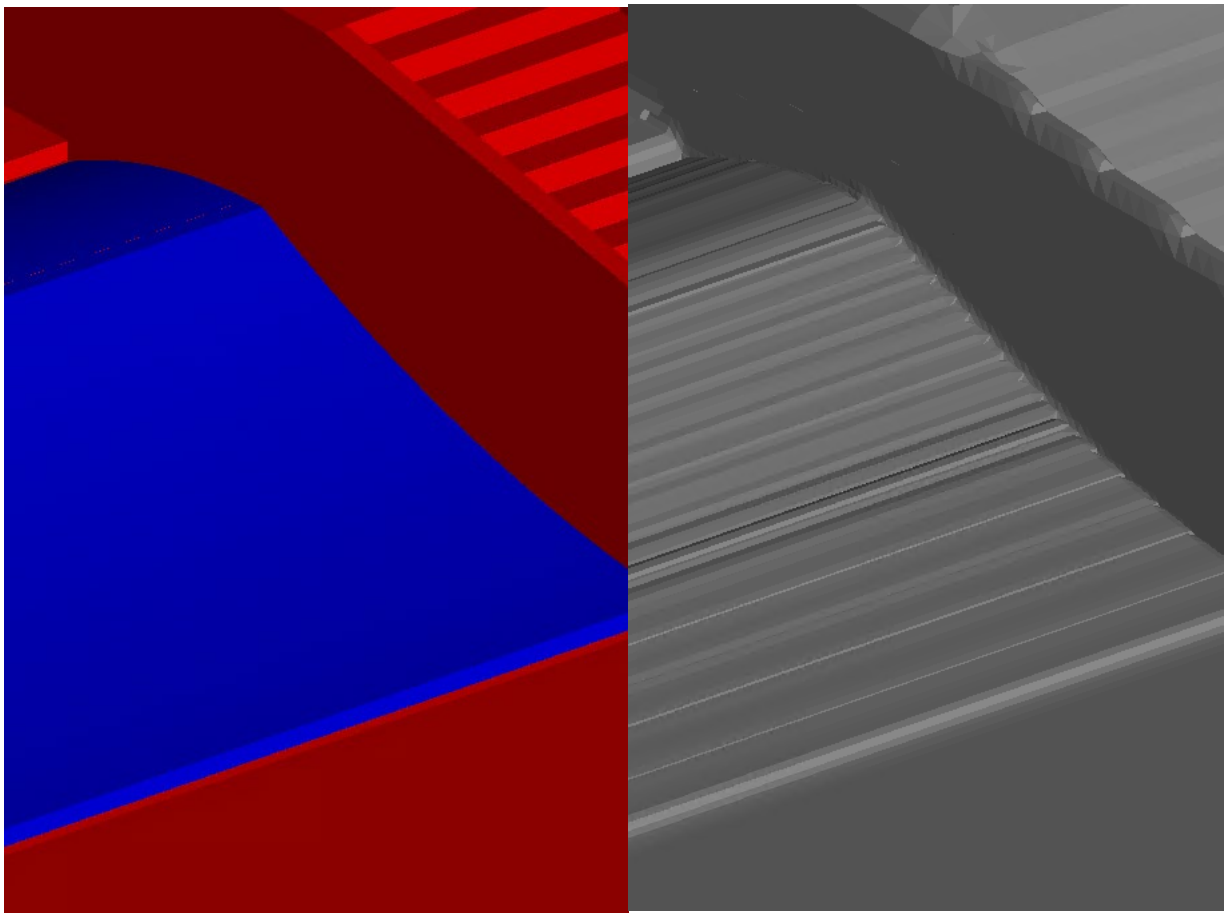


Figure 5 – Comparison of CAD and FAVOR Geometries

Within the FLOW3D model, parameters were selected to appropriately model the proposed waveshaper conditions. The FLOW3D model offers six different options for modeling turbulence. For this study, the k-ε Renormalization Group (RNG) model was used. Flow Science (the developers of FLOW3D) explains that this model is "known to describe low intensity turbulence flows and flows having strong shear regions more accurately". Additionally, the Immersed Boundary Method (IBM) option was selected. This option is beneficial for evaluating force predictions near walls. Downstream of the proposed Obermeyer structure the shallow water modeling option within FLOW3d was used. This allows the model domain to expand significantly but utilizes simplified depth-averaged calculations to improve computation efficiency where high resolution results are non-critical. The CFD model utilizes a variable timestep that is dynamically computed based on convergence criteria set within the program. This allows the timestep to vary depending on the flow regime within the model domain allowing for a stable run without sacrificing runtime.

At the downstream boundary condition a tailwater rating curve was used. This curve was based on measurements taken in 2019 downstream of drop structure 3. The measurements extended up to a flowrate of 6,560 cfs, above which the curve was linearly extrapolated. At smaller river flowrate of less than about 1,800 cfs the tailwater rating curve was modified to account for diversions through the FUDC bypass. At large flow rates there are significant impacts from

submergence at each drop structure and backwatering through the full river reach. The tailwater rating curve used for these analyses is shown in Figure 6.

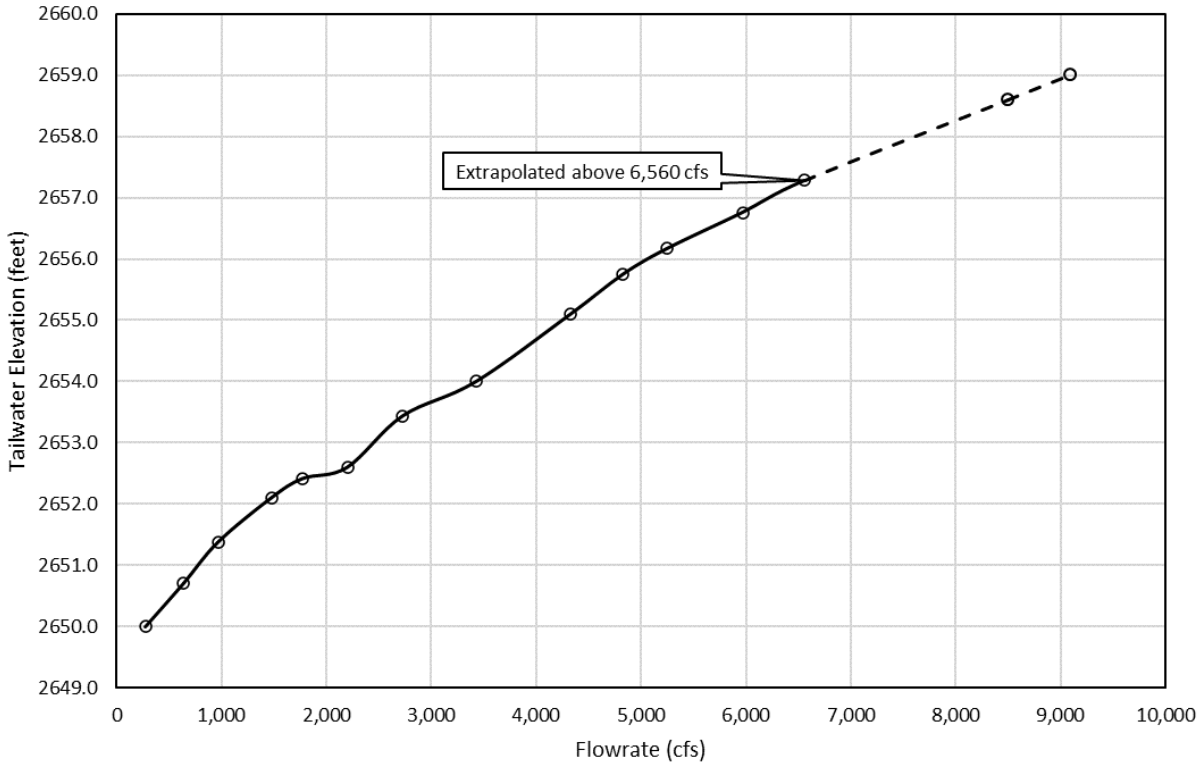


Figure 6 – Tailwater Rating Curve

3.3 Hydraulic Model Results

3.3.1 Waveshaper Gate

Within the FLOW3D model multiple hydraulic scenarios were prepared to evaluate the existing and proposed hydraulics of drop structure 1. These scenarios are summarized in Table 1.

Table 1 – Model Scenario Summary

Scenario No.	Configuration	Drop Structure Flow Rate[1] and Open Gates	Objectives
1	Existing Conditions	500 cfs @ Waveshaper	• Confirm undesirable hydraulics at low flow rates • Establish baseline for comparison to proposed conditions
2	Existing Conditions	1,400 cfs @ Spillway and Waveshaper	• Establish baseline for comparison to proposed conditions at an intermediate flow rate
3	Existing Conditions	8,000 cfs @ All Gates, Bankfull	• Establish baseline for comparison to proposed conditions at a high flow rate
4	Proposed Conditions	500 cfs @ Waveshaper	• Evaluate wave hydraulics at low end of operational range • Confirm improved hydraulic jump conditions
5	Proposed Conditions	1,400 cfs @ Spillway and Waveshaper	• Evaluate operations of new Obermeyer gate at an intermediate flow rate
6	Proposed Conditions	830 cfs @ Waveshaper	• Evaluate wave hydraulics at upper end of operational range
7	Proposed Conditions	7,950 cfs @ All Gates, Bankfull	• Evaluate impacts on overall river water surface and flow regime at a high flow rate

1. Flow rates indicated are over drop structure 1 and do not account for potential diversions through the FUDC bypass or additional flows from Esther Simplot Park which includes Sand Creek.

Except for scenarios 3 and 7, all scenarios were performed with the forebay at El. 2657.0 which has previously been established as beyond the upper bound of the original waveshaper design[1]. Within these scenarios, gate openings were modified to match the targeted flowrates. For scenarios 3 and 7, the forebay elevation model boundary condition was held at the bankfull

[1] Previous design iterations by McLaughlin Whitewater included flows down to 300 cfs with a forebay of EL 2657.0 which is a challenging set of criteria for a wide gate for which the original waveshaper gate was not designed for. Per TM006 paragraph 2.3.2 the waveshaper design is designed for 700-1200cfs. In practice the actual usable range with modification will likely allow for 500-1200 cfs over the waveshaper with a higher than original forebay of EL. 2657.0.

capacity (Approximately El. 2660.0) with all gates fully lowered and the resulting river flow rates were measured.

3.3.1.1 Scenario 1 – Existing Conditions 500 cfs at Waveshaper

Through discussions with the City, it was established that the waveshaper does not produce desirable hydraulic conditions at low flows. This was exhibited by the CFD model which showed similarly unstable wave operations at low flows. The depth-averaged velocity regime for this scenario is shown in Figure 7.

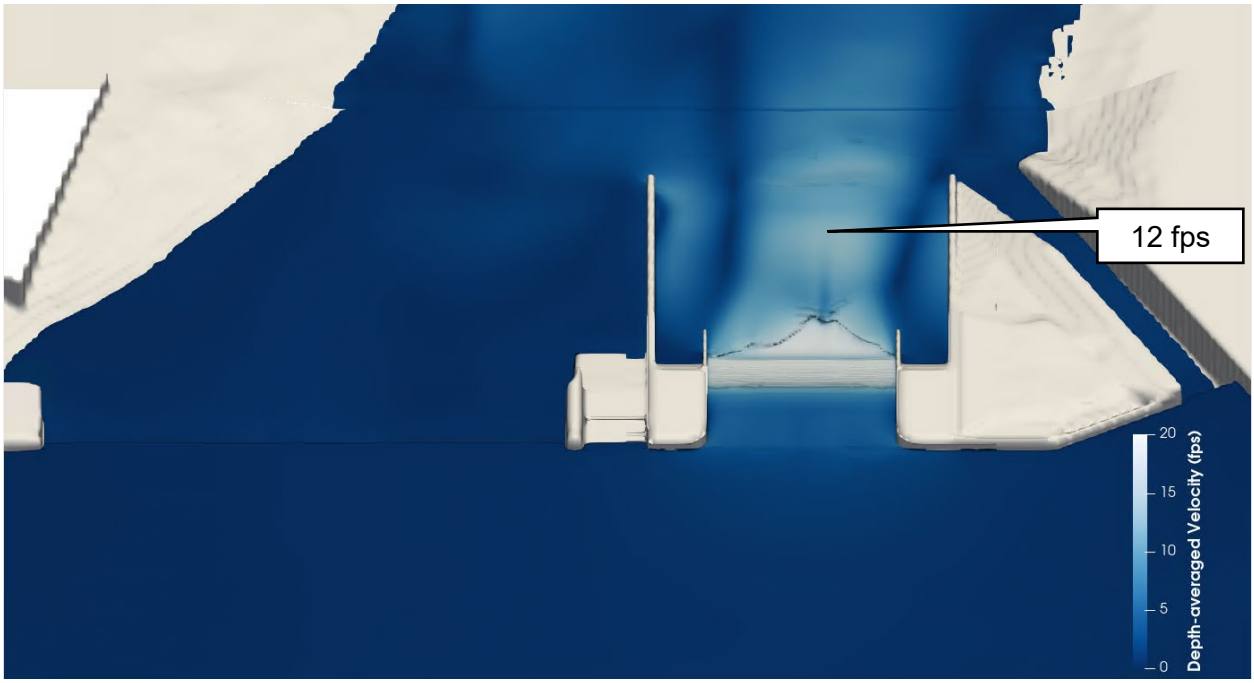


Figure 7 – Depth Averaged Velocities for Scenario 1 (Existing Conditions, 500 cfs)

As can be seen in this figure, a hydraulic jump is not well formed over the toe of the waveshaper gate. This agrees with general observations at the structure. Further, it can be seen that the majority of flows pass uniformly downstream towards drop structure 2 after exiting the waveshaper structure. This is expected as the existing conditions generally have no obstructions in the channel immediately downstream of the waveshaper.

3.3.1.2 Scenario 2 – Existing Conditions 1,400 cfs at Waveshaper and Spillway

Under existing operations for drop structure 1, flows beyond the capacity of the waveshaper gate are passed through the spillway gates starting from the right (looking downstream, gate 4). McMillen evaluated a scenario where flows are passed through both the waveshaper gate and spillway. In this Scenario The crest of Gate 4 was lowered to El. 2651.85. which is approximately 5.15 feet below the forebay elevation which resulted in a flow rate of approximately 750 cfs through the spillway. Additionally, the waveshaper gate crest was lowered to El. 2653.2. The hydraulic capacity estimated by the CFD model for both the waveshaper and existing spillway gates is consistent with analyses performed during the initial

drop structure design. An isometric of the depth-averaged velocities for Scenario 2 is presented in Figure 8.

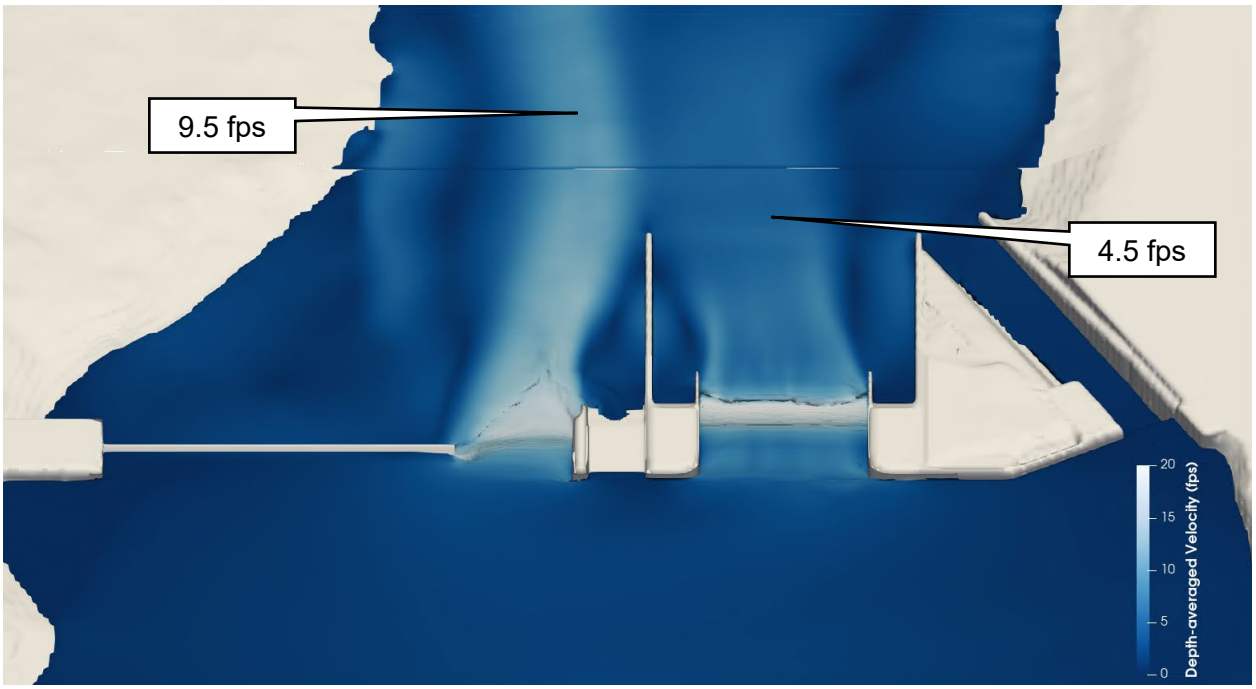


Figure 8 – Depth Averaged Velocities for Scenario 2 (Existing Conditions, 1,400 cfs)

As can be seen in this figure, the velocities downstream of Gate 4 are higher than at the waveshaper as a similar amount of flow to the waveshaper is passed through a narrower gate opening (20 ft vs 30 ft). At the waveshaper, a jump does form but exhibits some instability at the edges near the training walls.

3.3.1.3 Scenario 3 – Existing Conditions Bankfull Capacity

In the bankfull capacity scenario, all gates are fully lowered to pass their maximum capacity. Under existing conditions this bankfull capacity is estimated to be approximately 8,000 cfs. This capacity is significantly impacted by backwatering from the downstream structures and riverine hydraulics. This flowrate represents approximately 48% of the 100-year discharge (16,600 cfs). An isometric of the depth averaged velocities at drop structure 1 under a bankfull flow scenario is presented in Figure 9.

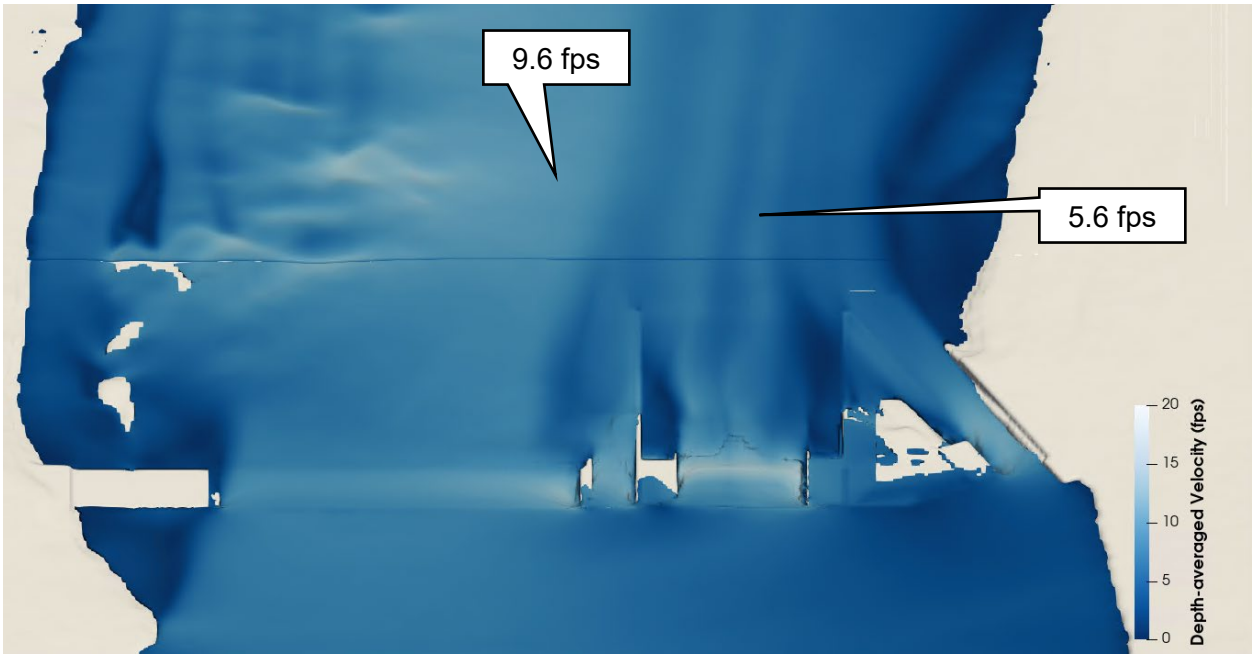


Figure 9 – Depth Averaged Velocities for Scenario 3 (Existing Conditions, Bankfull Capacity)

As can be seen in this figure there is significant overtopping of the portions of the drop structure between gates 1 and 2 (sluice and waveshaper). Velocities at the left side of the river downstream of the spillway are slightly higher than those at the right. This is similar to scenario 2 where more significant flows are passed through the spillway than the other gates. A submerged jump develops at the waveshaper gate but is well beyond the surfable range the structure is designed for.

This scenario was also developed to evaluate water surface elevations downstream of drop structure 1. A plan view of the water surface elevations in the reach between drop structure 1 and 2 is shown in Figure 10.

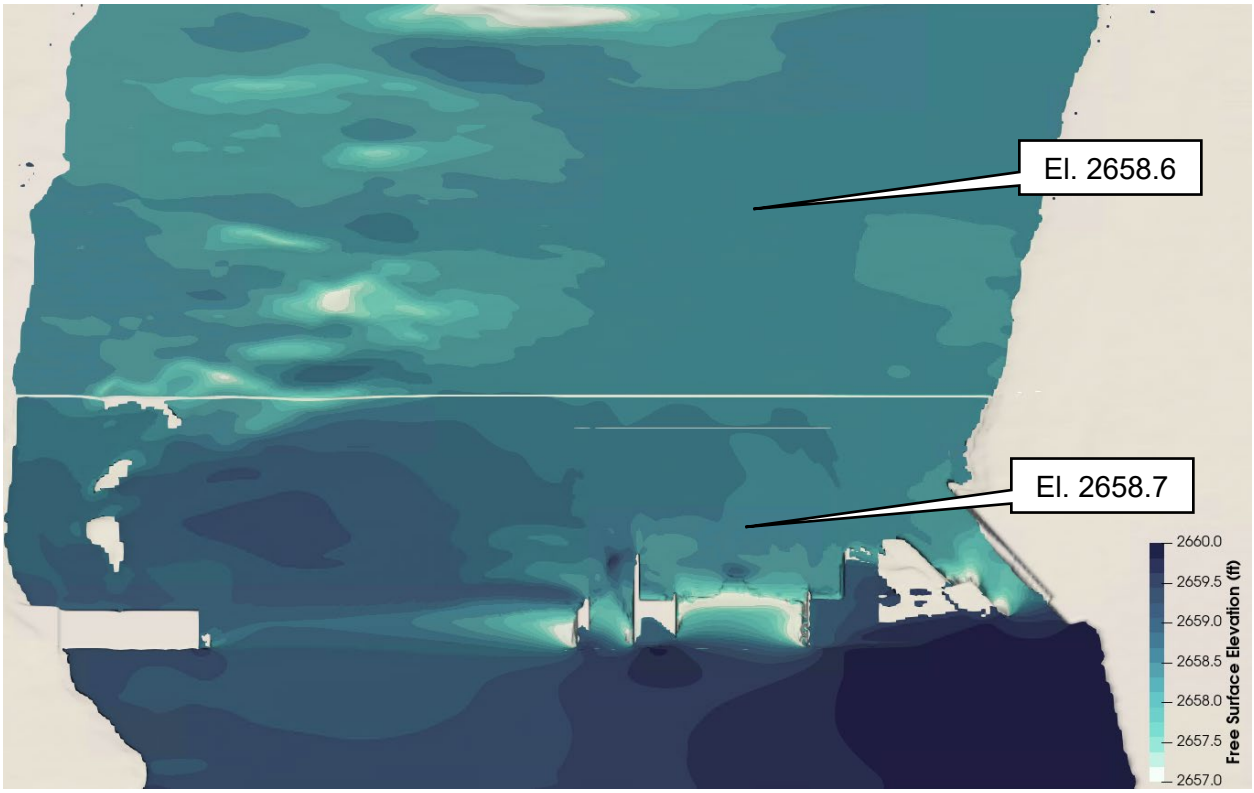


Figure 10 – Water Surface Elevations for Scenario 3 (Existing Conditions, Bankfull Capacity)

As can be seen in this figure the water surface elevations in this area are variable but within the main channel generally range from approximately El. 2658.7 to El. 2658.6. Some instability in the water surface elevations occurs at the left bank where flows would overtop the small island and enter the relatively undeveloped side channel.

3.3.1.4 Scenario 4 – Proposed Conditions 500 cfs at Waveshaper

Under proposed conditions at drop structure 1 the new Obermeyer gate downstream of the waveshaper would be fully raised during low flow conditions of 500 cfs represented by Scenario 4. An isometric of the depth-averaged velocities at the waveshaper gate and new Obermeyer is shown in Figure 11.

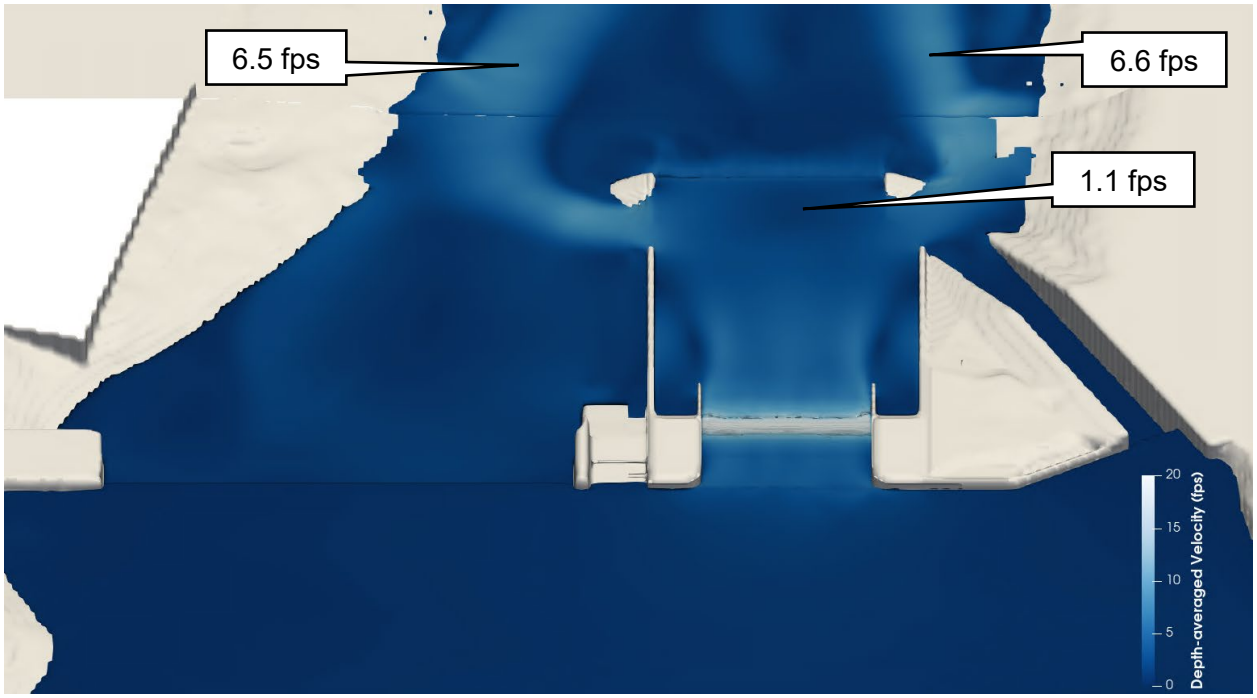


Figure 11 – Depth Averaged Velocities for Scenario 4 (Proposed Conditions, 500 cfs)

As can be seen in this figure, the CFD model indicates that the new Obermeyer is effective at producing a stable tailwater and hydraulic jump on the waveshaper gate. Velocities approaching the raised gate are approximately 1 fps and flow depths decrease to less than 6 inches over the crest of the new Obermeyer gate. The majority of flows are passed laterally towards the left and right banks around the Obermeyer structure. This can be seen in Figure 12 which shows the same depth-averaged velocities with flowpath streamlines overlaid.

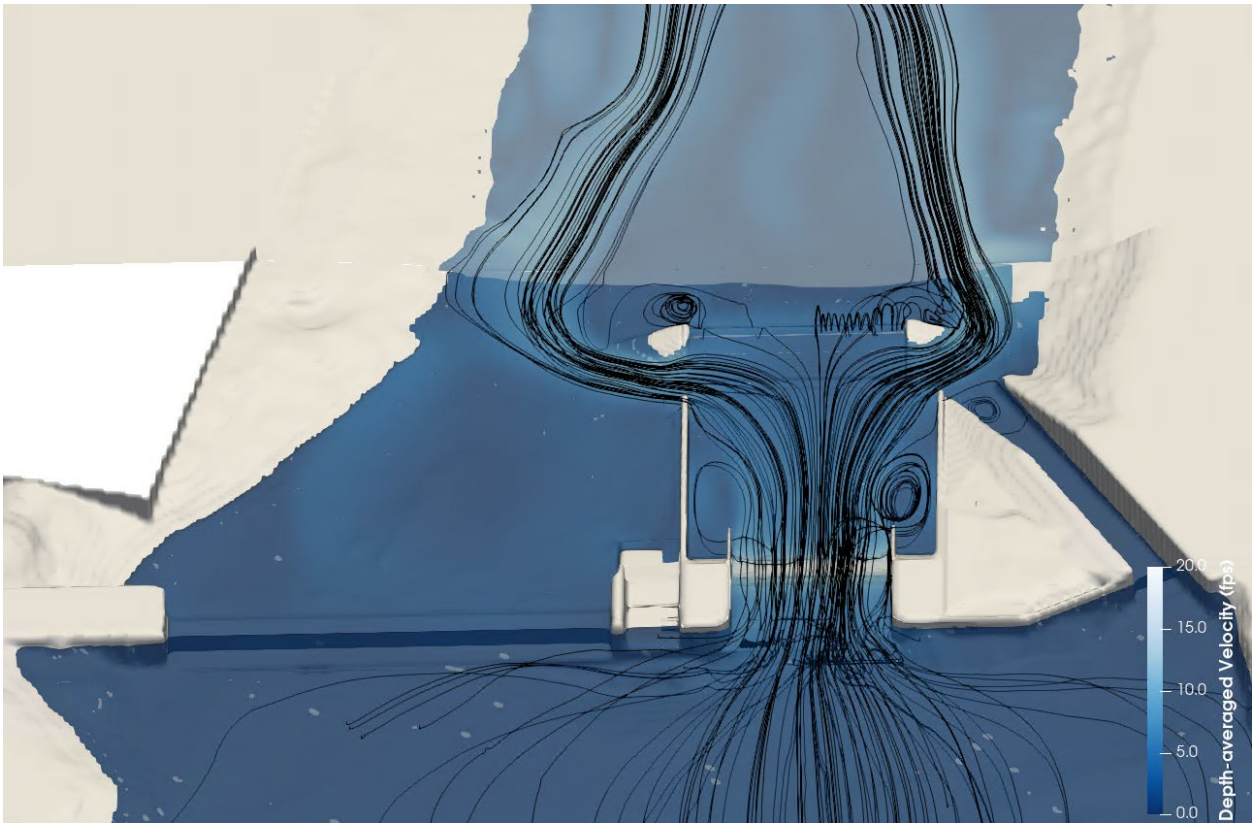


Figure 12 – Flowpath Streamlines for Scenario 4 (Proposed Conditions, 500 cfs)

The results shown in this figure also indicate that a small roller would form downstream of the new Obermeyer gate. However, this does not significantly draw from the flows that pass around the ends of the structure which represent the majority of the flows passing downstream. Detailed isometric views of the depth-averaged velocities and depths near the proposed Obermeyer structure are shown in Figure 13.

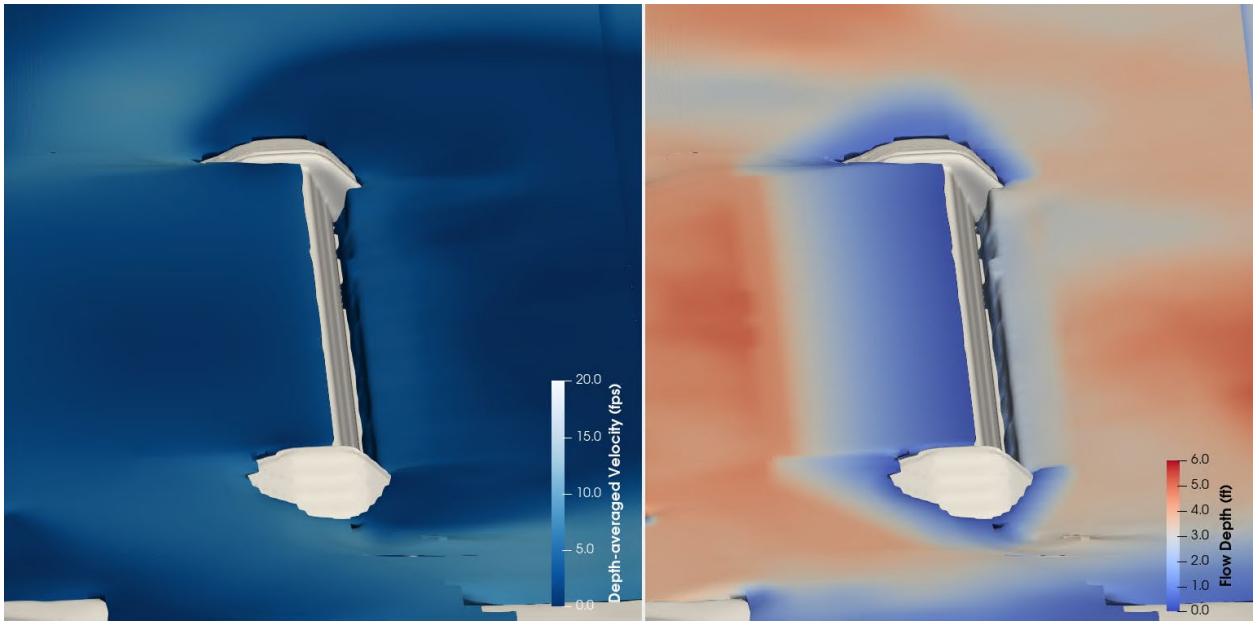


Figure 13 – Isometric Views of Proposed Obermeyer Structure (500 cfs)

Additional mesh resolution could be added to increase the quality of the results near the downstream face of the Obermeyer structure. This modeling may be performed in subsequent design phases as the Obermeyer structural geometry is refined by the manufacturer.

3.3.1.5 Scenario 5 – Proposed Conditions 1,400 cfs at Waveshaper and Spillway

McMillen evaluated a scenario where flows are passed through both the waveshaper gate and spillway. In this Scenario the new spillway gate numbers 6 and 7 could be lowered to pass approximately 750 cfs downstream. Similarly to Scenario 2, the waveshaper gate crest would be lowered to El. 2653.2 to pass approximately 650 cfs. The new Obermeyer gate was assumed to be in a fully raised position for this model scenario. An isometric view of the depth-averaged velocities at drop structure 1 for this scenario is shown in Figure 14.

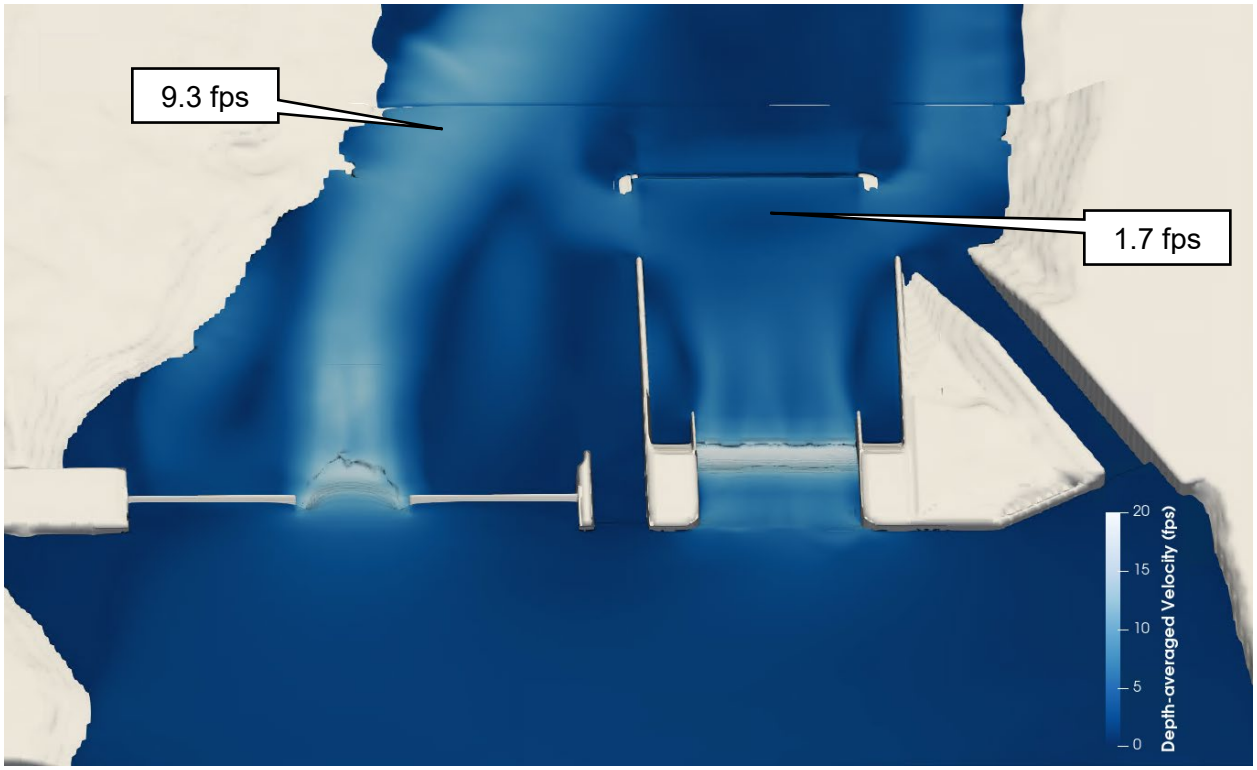


Figure 14 – Depth Averaged Velocities for Scenario 5 (Proposed Conditions, 1,400 cfs)

As can be seen in this figure, the flow regimes downstream of drop structure 1 are relatively similar to that of Scenario 2. The most significant difference is that the spillway flows are shifted from the right end of the spillway structure to be more centrally located within the spillway. This leads to a reduction in mixing between flows from the waveshaper and the spillway portions. However, flows passing the new Obermeyer are still directed laterally around the new structure towards the left and right banks. A well developed jump forms at the waveshaper under these flow conditions. Velocities approaching the Obermeyer are approximately 1.7 fps, which is slightly higher than those of Scenario 4. A similar flowpath streamline analysis was developed for this scenario and is shown in Figure 15.

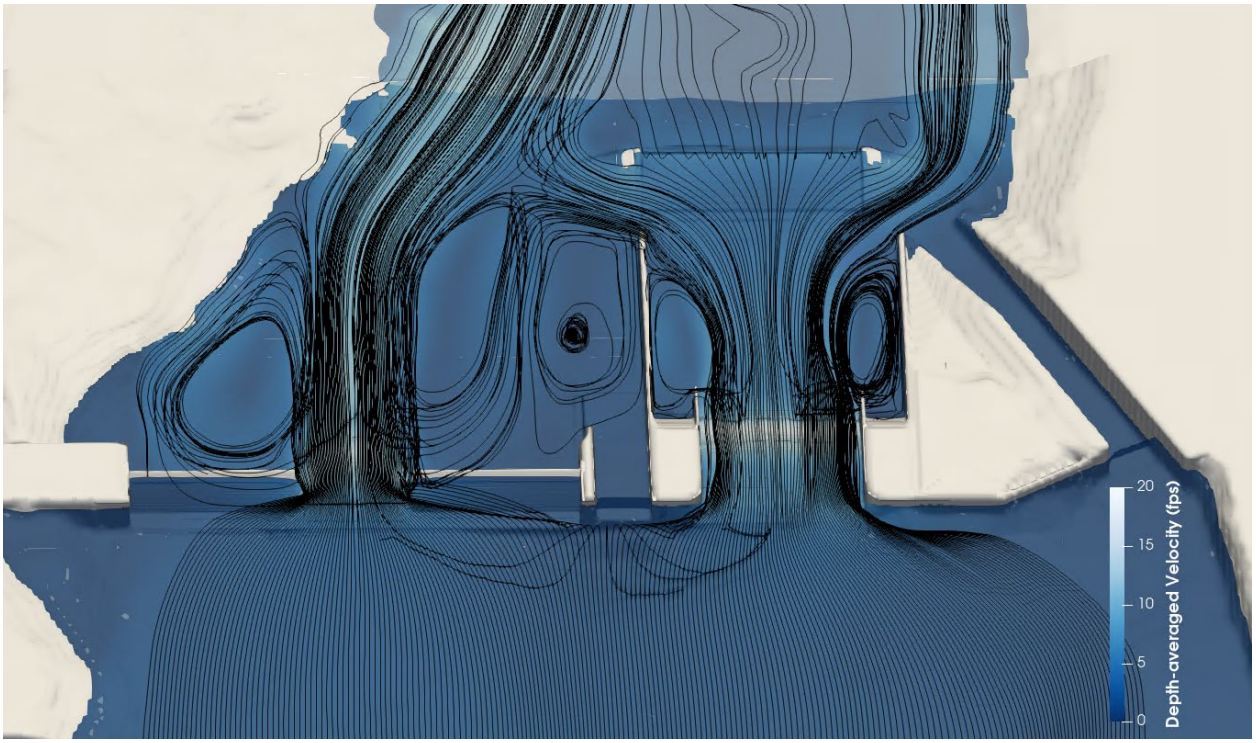


Figure 15 – Flowpath Streamlines for Scenario 5 (Proposed Conditions, 1,400 cfs)

Similar to the streamlines shown in Figure 12 for Scenario 4, a small roller forms downstream of the new Obermeyer gate. However, this is largely limited to flows passing directly over the new gate structure. These flows passing over the new gate represent a larger portion of the flows than in Scenario 4, however, they are still considerably less than the flows which pass around the structure abutments. To further evaluate the ability of the new Obermeyer gate to regulate tailwater elevations downstream of the waveshaper gate a cross section through the flow in this area is shown in Figure 16.

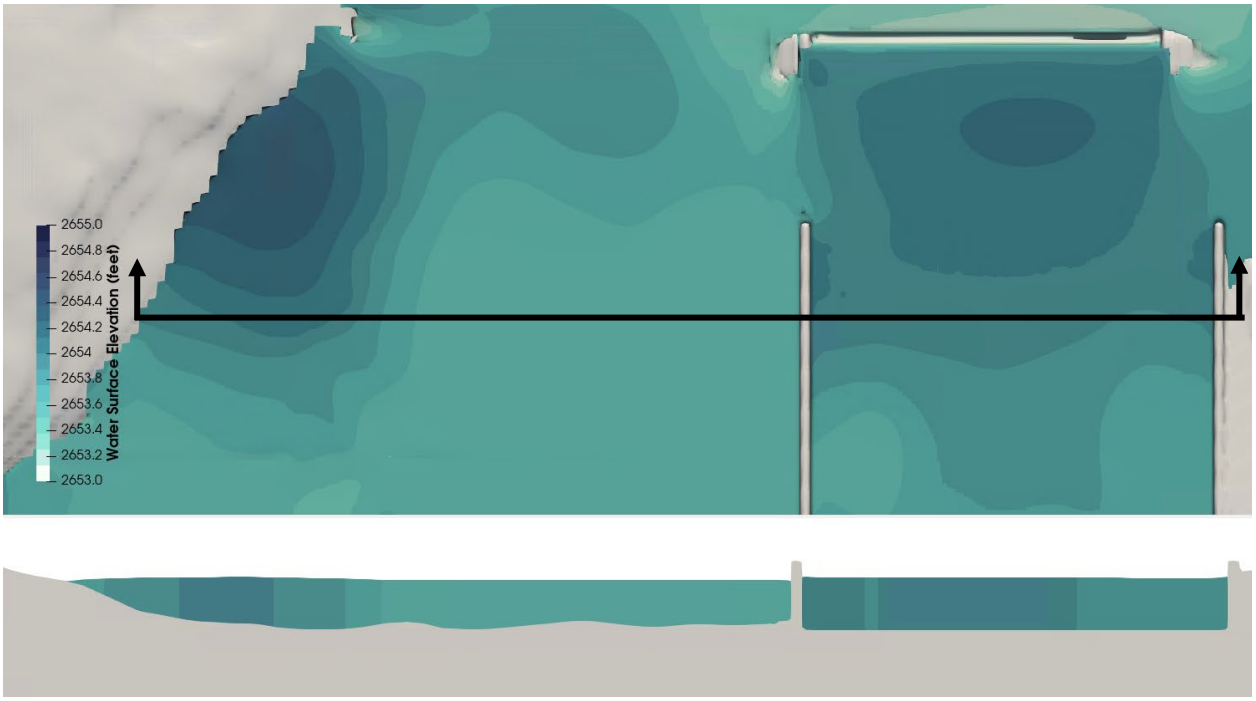


Figure 16 – Cross Section of Results of Scenario 5 (Proposed Conditions, 1,400 cfs)

As can be seen in this figure the new Obermeyer gate increases the tailwater elevation downstream of the waveshaper gate by approximately 0.5 feet when compared to the tailwater elevations downstream of the spillway. Additional increases in the tailwater elevation differential are observed when comparing points directly in front of the new Obermeyer to points downstream of the spillway gates.

3.3.1.6 Scenario 6 – Proposed Conditions 830 cfs at Waveshaper

McMillen evaluated a scenario where the waveshaper gate crest is fully lowered (El. 2652.1) and flows are passed through only the waveshaper gate. The resulting flow rate in this scenario is approximately 830 cfs. With the waveshaper gate fully lowered the crest loses some discharge efficiency and begins to act more as a broad crested weir than sharp crested. The resulting back-calculated weir coefficient for the fully lowered waveshaper gate is approximately 2.6. This significantly reduced discharge coefficient is typical of shallow flow over weirs that are relatively long in the direction of flow. The new Obermeyer gate downstream of the waveshaper was assumed to be in a fully raised position for this model scenario. An isometric view of the depth-averaged velocities at drop structure 1 for this scenario is shown in Figure 17.

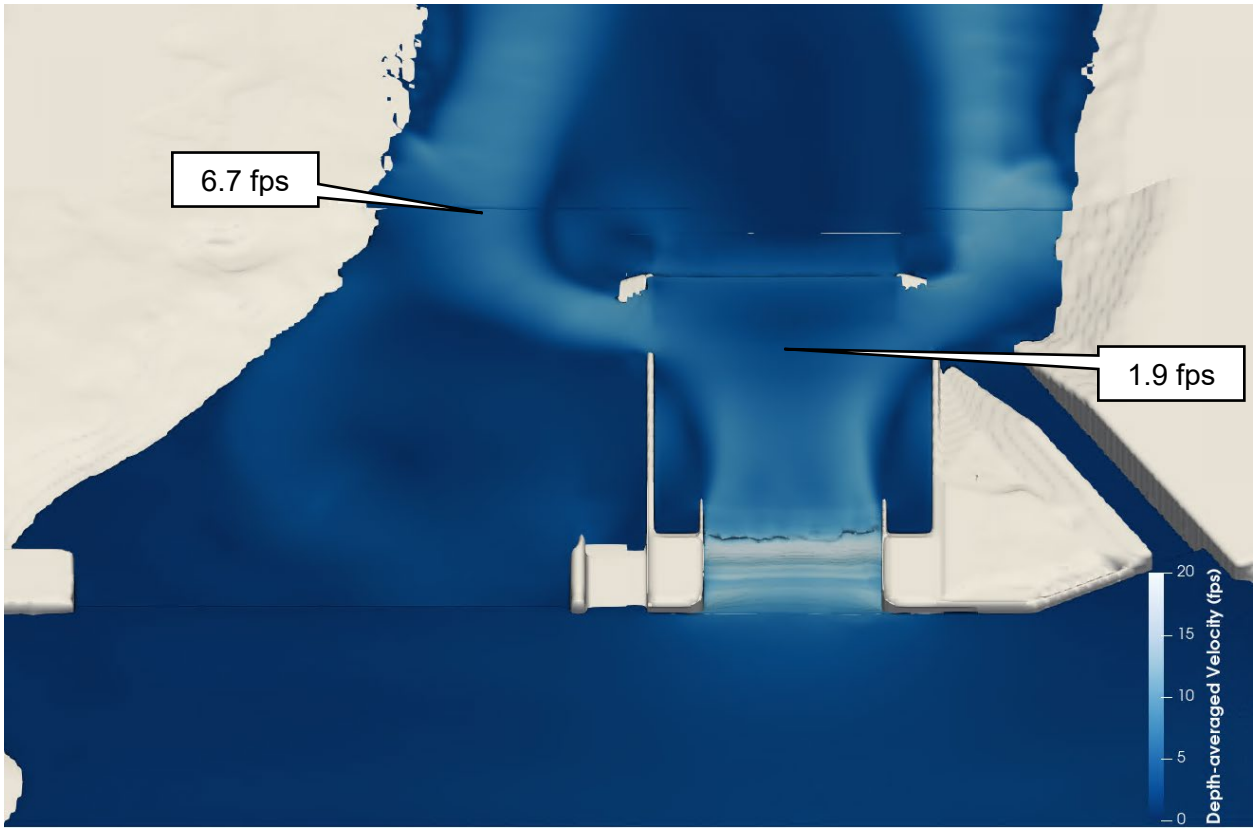


Figure 17 – Depth Averaged Velocities for Scenario 6 (Proposed Conditions, 830 cfs)

As can be seen in this figure, the flow regimes downstream of drop structure 1 are relatively similar to that of Scenario 4. As anticipated, based on the larger flow rate, the depth-averaged velocities are slightly higher through the downstream reach. Velocities approaching the Obermeyer are approximately 1.9 fps, which is slightly higher than those of Scenario 4. A similar flowpath streamline analysis was developed for this scenario and is shown in Figure 18.

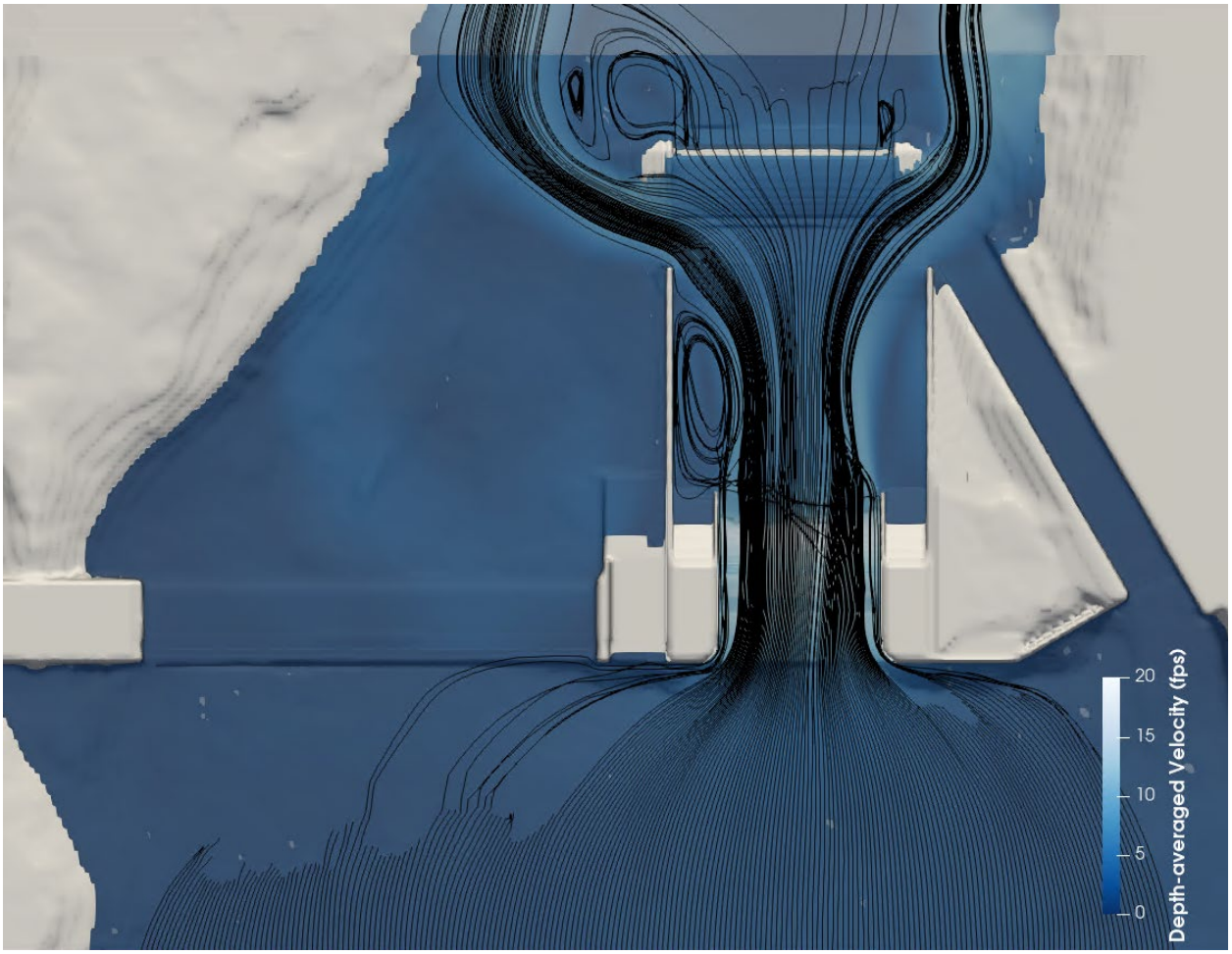


Figure 18 – Flowpath Streamlines for Scenario 6 (Proposed Conditions, 830 cfs)

Similar to the streamlines shown in Figure 12 for Scenario 4, a small roller forms downstream of the new Obermeyer gate and a majority of flow passing over the waveshaper is diverted left of the new Obermeyer structure. To further evaluate the ability of the new Obermeyer gate to regulate tailwater elevations downstream of the waveshaper gate a cross section through the flow in this area is shown in Figure 19.

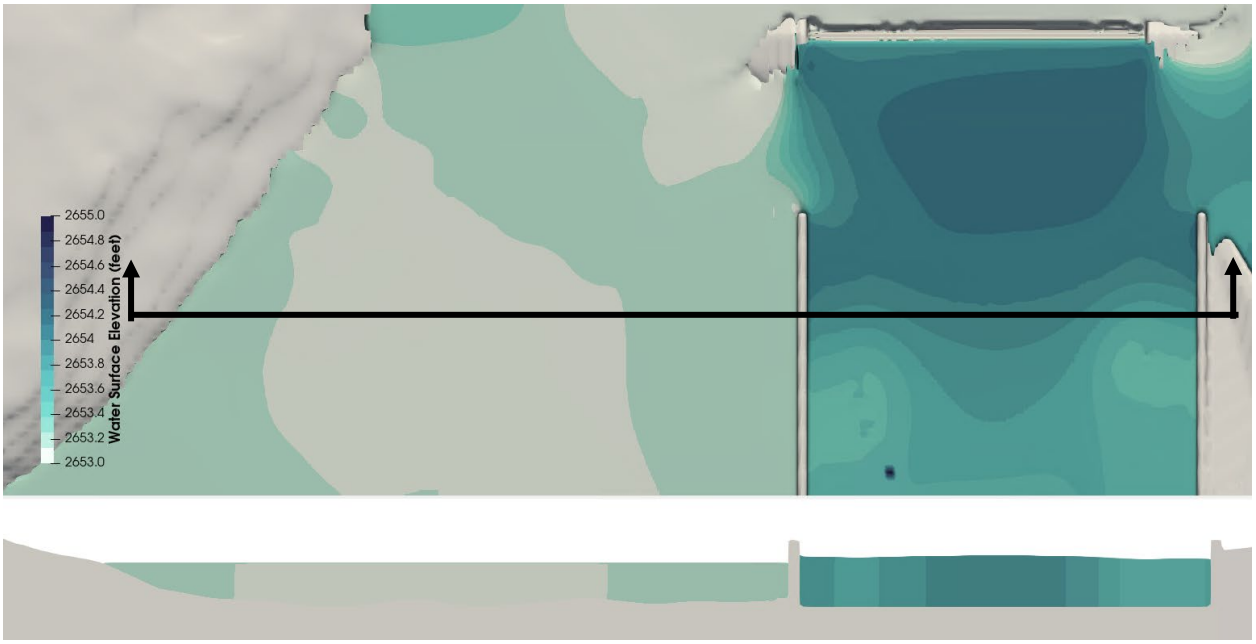


Figure 19 – Cross Section of Results of Scenario 6 (Proposed Conditions, 830 cfs)

As can be seen in this figure, the Obermeyer gate increases the tailwater elevation downstream of the waveshaper gate by approximately 1 foot when compared to the tailwater elevations downstream of the spillway. Additional increases in the tailwater elevation differential are observed when comparing points directly in front of the new Obermeyer to points downstream of the spillway gates.

3.3.1.7 Scenario 7 – Proposed Conditions Bankfull Capacity

In the bankfull capacity scenario, all gates are fully lowered to pass their maximum capacity in addition to the new Obermeyer proposed downstream. Under proposed conditions the bankfull capacity is estimated to be approximately 8,000 cfs which is equal to that of the existing conditions. An isometric of the depth-averaged velocities is shown in Figure 20.

Figure 20 – Depth Averaged Velocities for Scenario 7 (Proposed Conditions, Bankfull Capacity)

Similar to the existing conditions there is significant overtopping of the portions of drop structure 1 between gates 1 and 2 (sluice and waveshaper). In general, the estimated velocity regime for the proposed conditions is only slightly different in localized areas when compared to that of the existing conditions.

It is also important to evaluate the water surface elevations under this scenario to compare to the existing conditions to understand the implications of the new Obermeyer structure on the no-net-rise requirement. A plan view of the water surface elevations within the reach between drop structure 1 and drop structure 2 is shown in Figure 21.

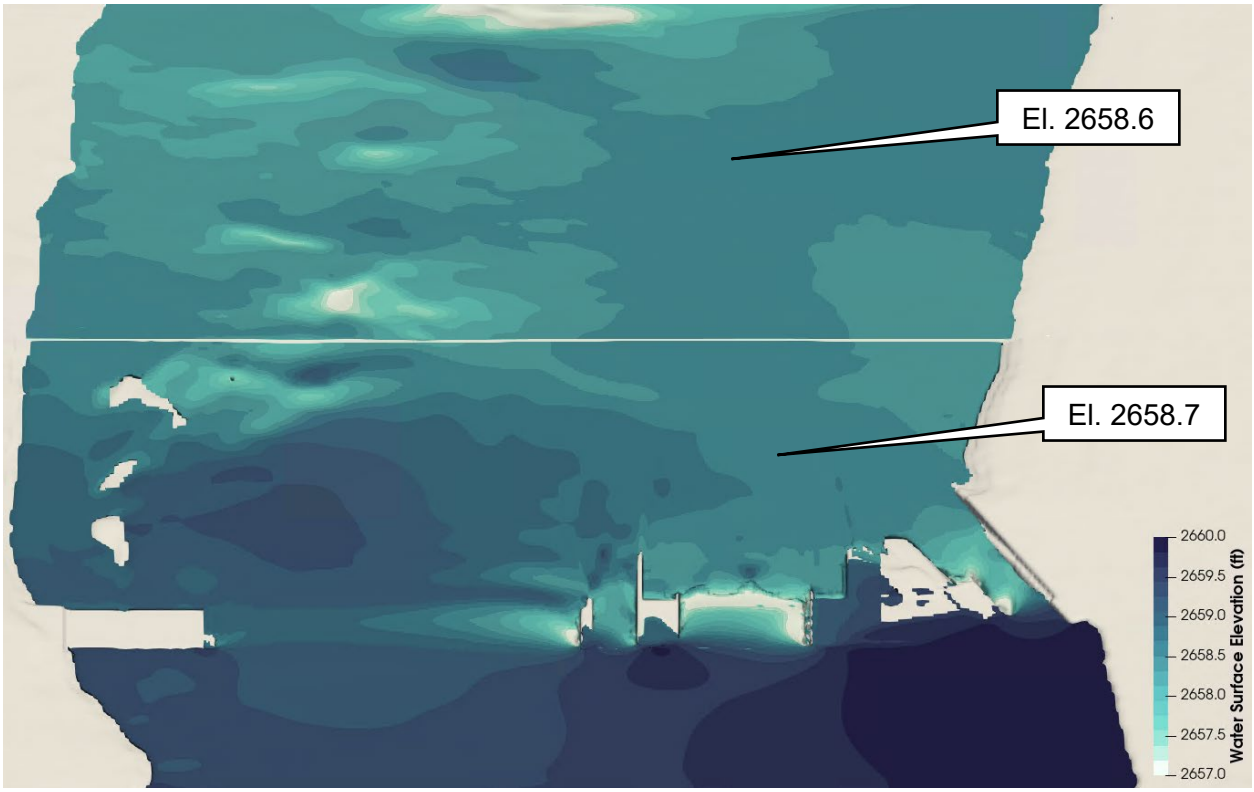


Figure 21 – Water Surface Elevations for Scenario 7 (Proposed Conditions, Bankfull Capacity)

As can be seen in this figure the water surface elevations in this area are variable but within the main channel generally range from approximately El. 2658.7 to El. 2658.6. Figure 22 shows a side-by-side comparison of the water surface elevations estimated for the existing conditions and proposed scenarios under bankfull conditions.

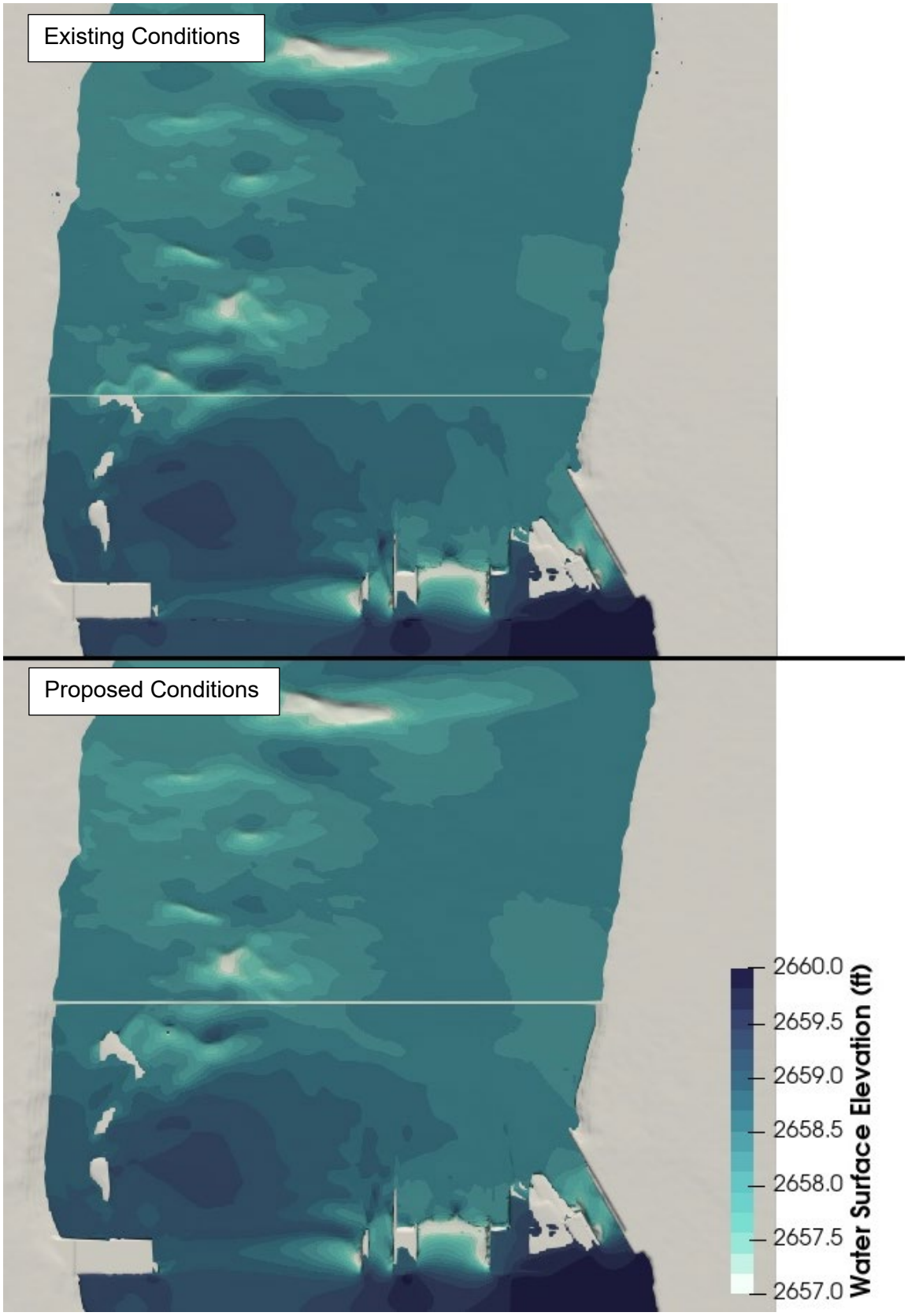


Figure 22 – Water Surface Elevations at Bankfull Capacity for Existing and Proposed Conditions

As can be seen in this figure, the water surface elevations downstream of drop structure 1 vary by less than 0.1 feet within the majority of the area of interest. Some slight variations are observed in localized areas which could be contributed to minor model instabilities which are inherent to the dynamic nature of CFD modeling.

3.3.2 Spillway Gates

The CFD model was also used to assess the hydraulic conditions of the modified spillway gates and new plunge pool. Two scenarios were specifically evaluated for the spillway gates: 1) New Gate 6 half lowered, and 2) Gate 6 fully lowered and Gates 5 and 7 half lowered. The results of these hydraulic analyses are discussed in the following sections.

3.3.2.1 Spillway Scenario 1 – Gate 6 Half Lowered

The first spillway scenario includes the crest of Gate 6 lowered to approximately El. 2654.3 which is equivalent to approximately half lowered. The results indicate that this gate would pass approximately 260 cfs in this configuration with the forebay at El. 2657.0. This is approximately 75 percent more than the empirically developed rating curve which indicates a discharge of approximately 150 cfs for this configuration. This can likely be attributed to the flows that pass over the left and right edges of the gate which are lower than the crest and are not accounted for in the empirical calculation. An isometric of the results of this scenario is shown in Figure 23.

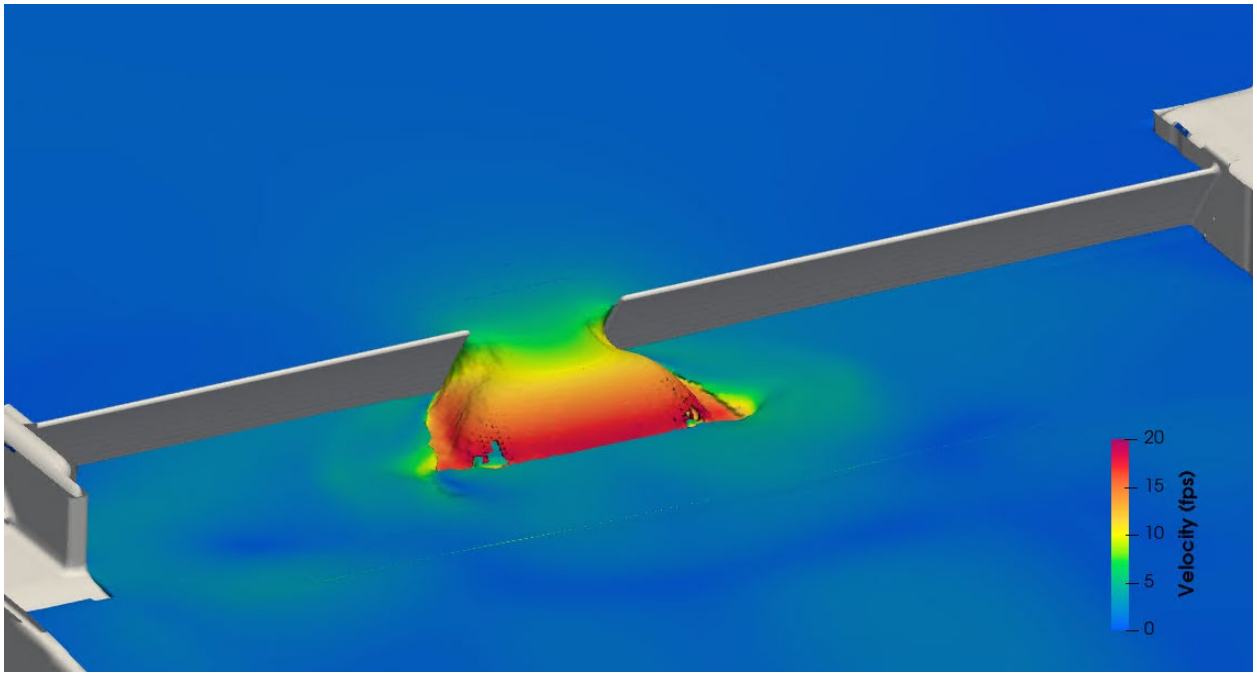


Figure 23 – Spillway Scenario 1 Isometric

As flows pass over the gate, the plunging nappe would impinge at the downstream end of the spillway slab into relatively shallow water. Velocities over the tip of the gate would reach approximately 18 fps. A cross section of the results is provided in Figure 24.

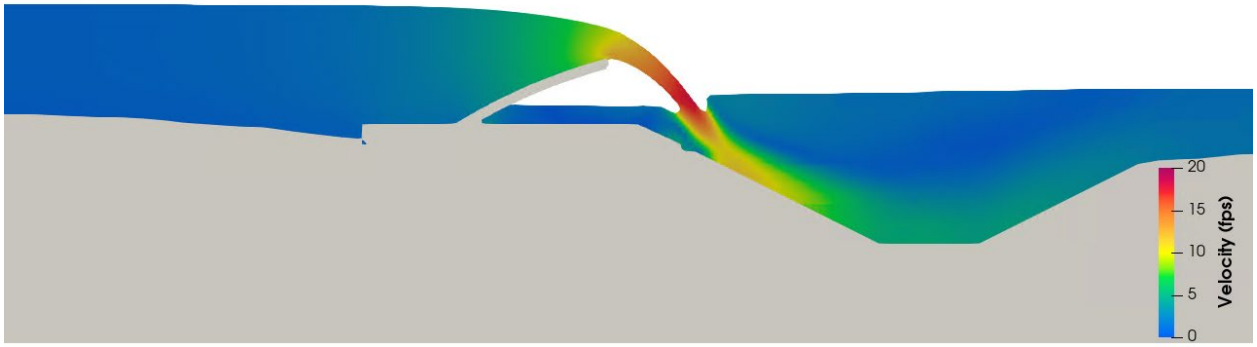


Figure 24 – Spillway Scenario 1 Cross Section

As can be seen in this figure, the velocities of the jet would be dissipated quickly but would generally be concentrated along the bottom of the plunge pool before rising to exit at the downstream end. Some slight backwards flow towards the gate would develop within the pool however velocities would be relatively low compared to the main flows directed downstream.

3.3.2.2 Spillway Scenario 2 – Gate 6 Fully and Gates 5 and 7 Half Lowered

The second spillway scenario includes Gate 5 fully lowered and the crest of Gates 6 and 7 lowered to approximately El. 2654.3 which is equivalent to approximately half lowered. The results indicate that the gates would pass a cumulative flow rate of approximately 870 cfs in this configuration with the forebay at El. 2657.0. Similarly to the first scenario, this is more than estimated by the empirical analysis which indicates a capacity of approximately 770 cfs for this gate operation. This is approximately a 13 percent difference. This is closer to the empirical analysis then spillway scenario 1 as the internal edges of each gate are significantly submerged by the neighboring gates. An isometric of the results of this scenario is shown in Figure 25.

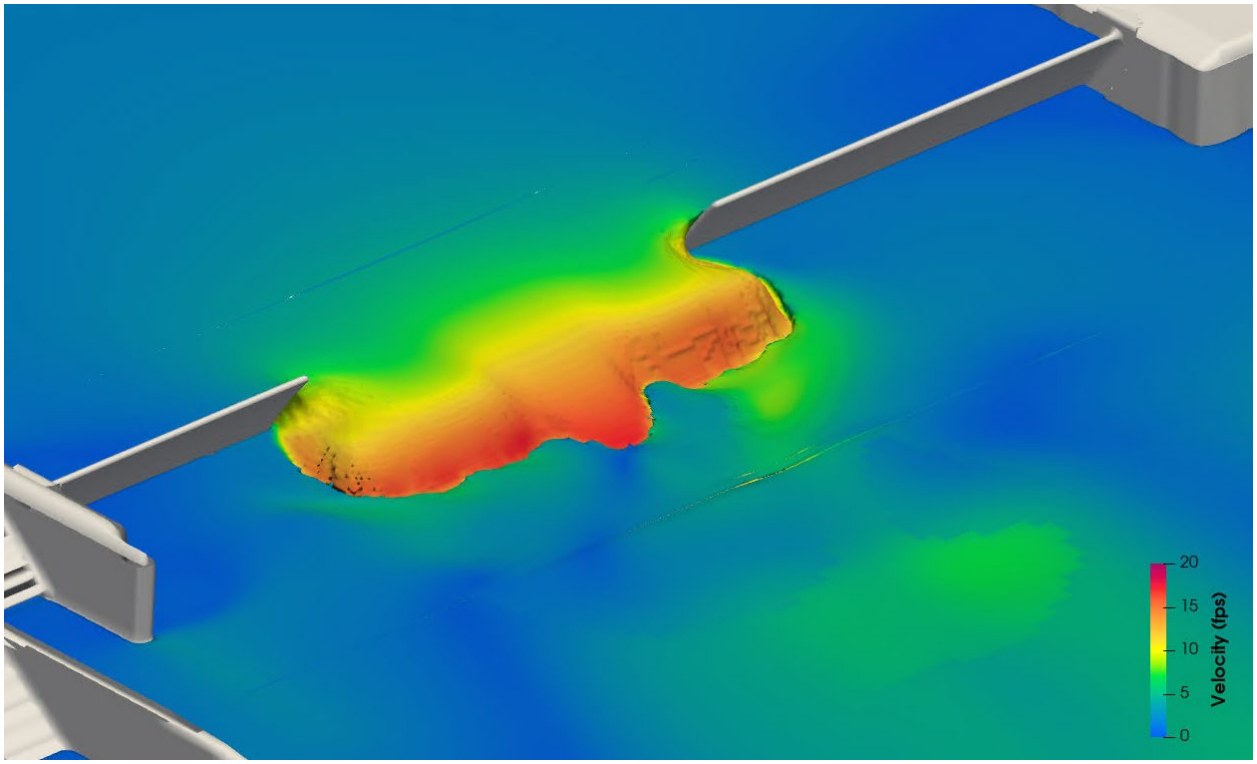


Figure 25 – Spillway Scenario 2 Isometric

As can be seen in this figure, velocities over the lowered gates reach approximately 17 fps with higher velocities concentrated near the center of the fully lowered Gate 6. Further, the same isometric with flow streamlines added is shown in Figure 26.

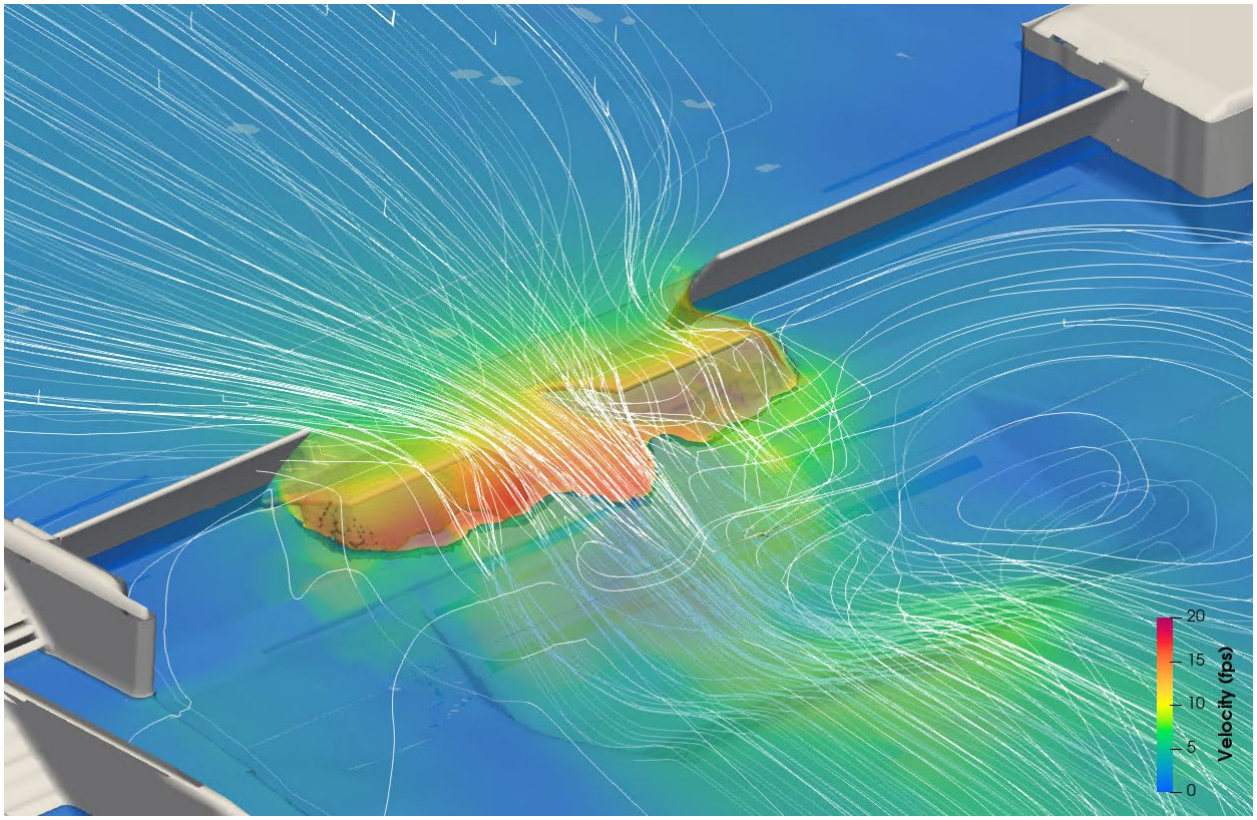


Figure 26 – Spillway Scenario 2 Isometric with Flow Streamlines

As can be seen in this figure, the majority of the streamlines from upstream of the gate are concentrated towards the central fully lowered gate. Some eddying is observed to the left and right of the gates though this is mainly due to flows deflecting off the river bank and the outside of waveshaper structure wall. Some flows are shown being pushed between the upper face of the center gate and lower faces of the side gates. These flows would likely be reduced by the Obermeyer gate bladders which are not included in the CFD model. Figure 27 shows cross sections through each spillway gate.

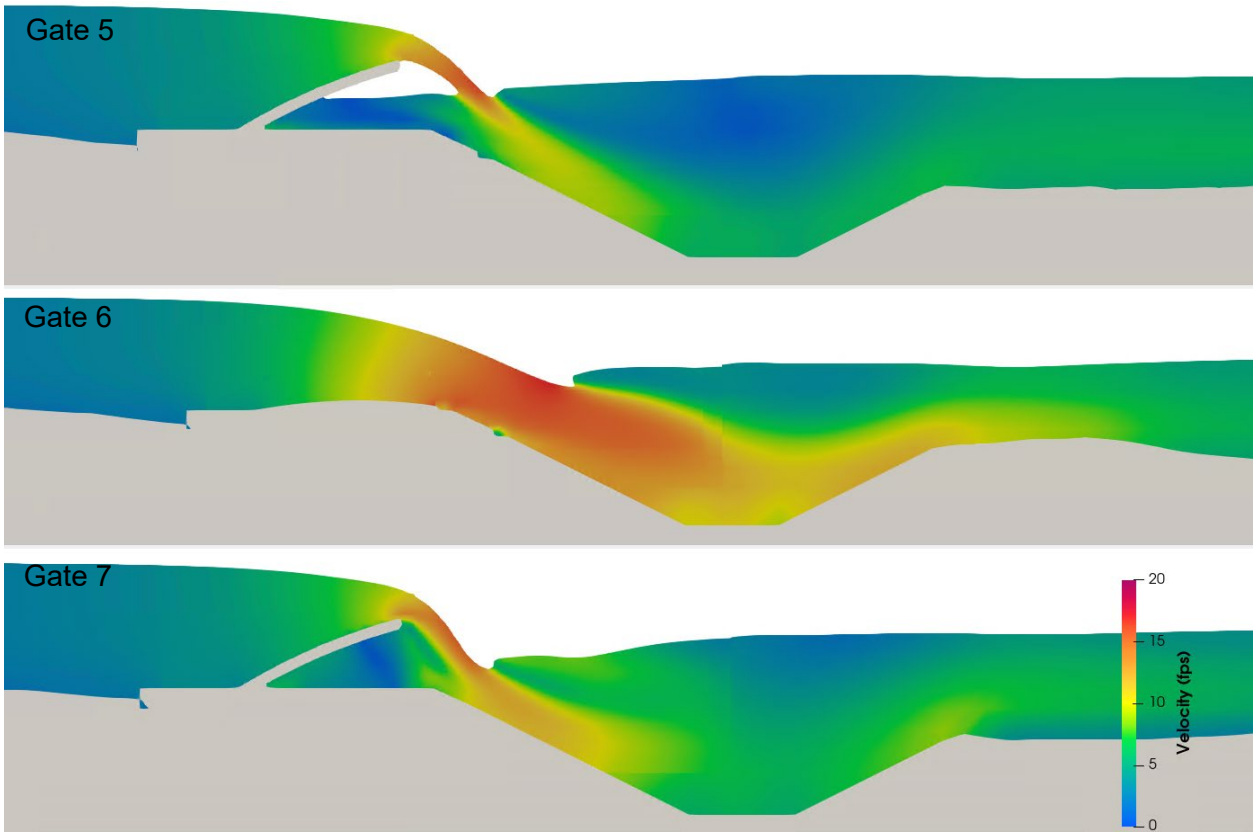


Figure 27 – Spillway Scenario 2 Cross Sections

As can be seen in this figure the hydraulics are variable at each gate but generally indicate a similar flow pattern of high velocities over the gate and entering the basin which dissipate in the plunge pool and are passed downstream. At gate 7 the nappe flow is depressed which is likely due to the dynamic CFD simulation and short time periods modeled. Over long term flows it is likely that the hydraulics would be more similar to those observed at Gate 5. Similar to the first spillway scenario, some slow recirculating velocities are observed within the new plunge pool but are generally minimal compared to the velocities passing downstream through the plunge pool.

4.0 Conclusions

McMillen has prepared a series of hydraulic analyses in support of the modification designs being developed for the J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase II. The results of the analyses presented in this TM show that the new Obermeyer gate proposed for downstream of the existing waveshaper gate could help to expand the operational range of the structure. Further, the proposed Obermeyer gate could be operated to limit impacts to the hydraulic regime within the Boise River during high flow events. The modifications to the spillway will help to improve the operational flexibility and the new plunge pool could allow for safter boater passage if they were to inadvertently pass over the spillway structure.

5.0 References

McMillen, Inc. (2023). *Technical Memorandum – Drop 1 Structure Modifications Scope of Work*. Boise, ID.

Adaptive Environmental Planning

October 23, 2023

To: Idaho Department of Water Resources
Stream Channel Protection Program
(submitted electronically to: file@idwr.idaho.gov)

Subject: Boise Whitewater Park Phase II Modifications Project
Re: Joint Application for Permits

On behalf of the City of Boise, please find enclosed the Joint Application for Permits (JAP) for the Boise Whitewater Park Phase II Modifications Project. Work is proposed for winter 2023/2024 in the Boise River during the non-irrigation season when flows are expected to be at their lowest volume.

Included in the application package is:
1. Joint Application for Permits
2. Design Drawings
3. Temporary Dewatering Figures
4. Photographs

Based upon a review of Endangered Species Act and National Historic Preservation Act information, proposed modifications to the Boise Whitewater Park Phase II outlined in this JAP will not impact species or cultural/historical sites greater than the analysis conducted for the original permits (S63-20701).

If you have any questions regarding this application, please feel free to contact me at greg@adaptiveenviro.com / 208-340-5721 (cell) with any questions. I look forward to working with you on this project.

Sincerely,

Greg Allington / Adaptive Environmental Planning, LLC (Senior Biologist)
Authorized Agent

cc: Sara Arkle (Parks Resource Superintendent) – City of Boise Parks and Recreation Department
sarkle@cityofboise.org / 208-608-7637

Mort McMillen, PE (Engineer) – McMillen
.com / 208-342-4214 (Office) / 208-830-1394 (Cell)

RECEIVED
Oct 23, 2023
DEPARTMENT OF
WATER RESOURCES

ATTACHMENT 1
JOINT APPLICATION FOR PERMITS

RECEIVED
Oct 23, 2023
DEPARTMENT OF
WATER RESOURCES

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authorities: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8½"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY			
USACE NWW-	Date Received:	☐ Incomplete Application Returned	Date Returned:
Idaho Department of Water Resources No. 63-21092	Date Received: 10/23/2023	☒ Fee Received DATE: 10/31/2023	Receipt No.: C117250
Idaho Department of Lands No.	Date Received:	☐ Fee Received DATE:	Receipt No.:

INCOMPLETE APPLICANTS MAY NOT BE PROCESSED

1. CONTACT INFORMATION - APPLICANT Required:			2. CONTACT INFORMATION - AGENT:		
Name: Sara Arkle-Parks Resource Superintendent			Name: Greg Allington		
Company: City of Boise-Parks and Recreation Department			Company: Adaptive Environmental Planning		
Mailing Address: 1104 Royal Blvd			Mailing Address: 2976 East State Street, Ste. 120 #431		
City: Boise	State: ID	Zip Code: 83706	City: Eagle	State: ID	Zip Code: 83616
Phone Number (include area code): 208-608-7637	E-mail: sarkle@cityofboise.org		Phone Number (include area code): 208-340-5721	E-mail: greg@adaptiveenviro.com	

3. PROJECT NAME or TITLE: Boise Whitewater Park Phase II Modifications			4. PROJECT STREET ADDRESS: 3206 W Pleasanton Ave.	
5. PROJECT COUNTY: Ada	6. PROJECT CITY: Boise		7. PROJECT ZIP CODE: 83702	8. NEAREST WATERWAY/WATERBODY: Boise River
9. TAX PARCEL ID#: S1004325655	10. LATITUDE: 43.628478 LONGITUDE: -116.234613		11a. 1/4: / 11b. 1/4: / 11c. SECTION: 5	11d. TOWNSHIP: 3N / 11e. RANGE: 2E
12a. ESTIMATED START DATE: Dec 1, 2023	12b. ESTIMATED END DATE: Feb 29, 2024		13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? ☒ NO ☐ YES Tribe:	
13b. IS PROJECT LOCATED IN LISTED ESA AREA? ☒ NO ☐ YES			13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? ☒ NO ☐ YES	

14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks.

From W State Street in Boise travel south on N Whitewater Park Blvd until you reach the Esther Simplot Park main entrance. Follow the drive over the bridge to the western-most parking lot adjoining the Boise River.

15. PURPOSE and NEED: ☐ Commercial ☐ Industrial ☒ Public ☐ Private ☐ Other

Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project.

The purpose of the project is repair/modify components of the existing Whitewater Park Phase II Drop Structure 1 to improve public safety and enhance functionality of the existing facilities.

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

Refer to the attached Design Plans for detailed locations of the following PERMANENT features (all impacts are within the OHWM of the Boise River (perennial stream) and there are no wetland impacts):
-Modify Gates 5 & 6 on Drop Structure 1 (Drawing G005 Key Note "A")
Net 0 CY / 0 SF
-New Plunge Pool downstream of Gates 5 & 6 (Drawing G005 Key Note "H")
Excavate 412 CY & Fill 278 CY (riprap and grout) / 1,250 SF
-New Air Pipe Lines to Gates 5 & 6 (Drawing G005 Key Note "B")
Excavate 3 CY (riprap and grout) & Fill 3 CY (concrete, grout, and pipe) / 53 SF
-Repair Leakage on Left Bank (Drawing G005 Key Note "G")
Excavate 50 CY (riprap and grout) & Fill 50 CY (concrete, grout, and membrane) / 660 SF
- New Obermeyer Weir downstream of Wave Shaper (Drawing G005 Key Note "D")
Excavate 40 CY & Fill 54 CY (concrete and gate) & Fill 21 CY (riprap) / 714 SF
Refer to the attached Temporary Dewatering Figures for detailed locations of the following TEMPORARY features (all impacts are within the OHWM of the Boise River (perennial stream) and there are no wetland impacts):
-Boise River Dewatering between Drop Structures 1 and 3 (Dewatering Figures)
Dewater 1.4 acres / 510 linear feet and complete fish salvage (fish will be relocated downstream in the Boise River in coordination with IDFG)
100 cfs will be diverted around the work area and discharge back to the Boise River downstream of Drop Structure 3
All flow above 100 cfs will be diverted into the Farmer's Union Canal which flows back to the Boise River downstream of Veteran's Memorial Parkway

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

There were no other alternatives considered to repair/modify the existing structures.

Impacts to the Boise River from the repairs/modifications and the new Obermeyer Weir are all within the previously approved disturbance area for the Whitewater Park Phase II.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

The repairs/modifications are being implemented in the previously approved disturbance area for the Whitewater Park Phase II resulting in 0.045 acres of impacts.

The new Obermeyer Weir is proposed for installation in the previously approved disturbance area resulting in 0.016 acres of impact.

There is no mitigation proposed for this project.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil:	_____	cubic yards
Dredged Material:	_____	cubic yards
Clean Sand:	_____	cubic yards
Clay:	_____	cubic yards
Gravel, Rock, or Stone:	_____	cubic yards
Concrete:	_____	cubic yards
Other (describe): _____	: _____	cubic yards
Other (describe: _____	: _____	cubic yards

TOTAL:_____ cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling:	_____ acres	_____ sq ft.	_____	cubic yards
Backfill & Bedding:	_____ acres	_____ sq ft.	_____	cubic yards
Land Clearing:	_____ acres	_____ sq ft.	_____	cubic yards
Dredging:	_____ acres	_____ sq ft.	_____	cubic yards
Flooding:	_____ acres	_____ sq ft.	_____	cubic yards
Excavation:	_____ acres	_____ sq ft.	_____	cubic yards
Draining:	_____ acres	_____ sq ft.	_____	cubic yards
Other: _____ :	_____ acres	_____ sq ft.	_____	cubic yards

TOTALS: _____ acres _____ sq ft._____ cubic yards

21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT? ☒ NO ☐ YES If yes, describe ALL work that has occurred including dates.

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

USACE & IDEQ: NWW-2009-00090
IDWR: S63-20701

23. ☒ YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: N/A Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY? ☐ NO ☒ YES If yes, contact the floodplain administrator in the local government jsrisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.
See Instruction Guide for further clarification and all contact information.

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:

☐ NO ☒ YES Is applicant willing to assume that the affected waterbody is high quality?
☐ NO ☒ YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?
☒ NO ☐ YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICTES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

Water will be diverted out of the active construction area using a combination of temporary cofferdams and raising the existing gates on the wave shaper and sluiceway. The main flood control weirs have infrastructure built into the concrete and stoplogs/plastic sheeting will be used to cofferdam water. The water surface elevation will be lowered upstream of Drop Structure 1 and water will be lower than the entrance elevation into the side channel on the left bank by the fish ladder.

0-100 cfs will be diverted into the existing underground diversion pipe that was used during the initial construction of the Whitewater Park. Any flow above 100 cfs will be diverted into the Farmer's Union Canal intake which returns to the Boise River downstream of Veteran's Memorial Parkway. No flow will enter the Farmer's Union Canal past their intake gate structure.

All construction work will be performed in the dry. Dewatering pumps will be installed on an as-needed basis and the hoses will outlet downstream of the active work area back into the Boise River.

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
			TOTAL STREAM IMPACTS (Linear Feet):	

28. LIST EACH WETLAND IMPACT include mechanized clearing, filL excavation, flood, drainage, etc. Attach site map with each impact location.

Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft
NONE				
			TOTAL WETLAND IMPACTS (Square Feet):	

29. ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: Provide contact information of ALL adjacent property owners below.

Name: Waterfront District HOA Inc. Mailing Address: PO Box 45387 City: Boise State: Zip Code: 83711 Phone Number (include area code): NA E-mail: NA	Name: Idaho State Parks & Recreation Mailing Address: 5657 E Warm Springs Ave City: Boise State: ID Zip Code: 83712 Phone Number (include area code): NA E-mail: NA
Name: Farmers Union Ditch Co LTD Mailing Address: Po Box 1474 City: Eagle State: ID Zip Code: 83616 Phone Number (include area code): NA E-mail: NA	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:

30. SIGNATURES: STATEMENT OF AUTHORIAZATION / CERTIFICATION OF AGENT / ACCESS

Application is hereby made for permit, or permits, to authorize the work described in this application and all supporting documentation. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein; or am acting as the duly authorized agent of the applicant (Block 2). I hereby grant the agencies to which this application is made, the right to access/come upon the above-described location(s) to inspect the proposed and completed work/activities.

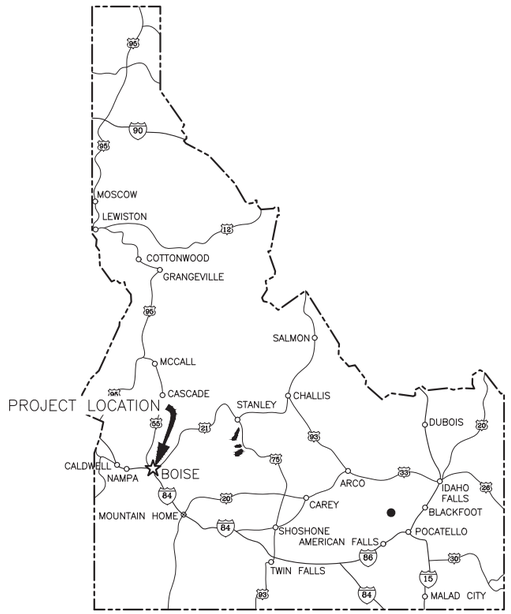
Signature of Applicant: _____ *Date:* 10/23/23

Signature of Agent: Greg Allington *Date:* 10/23/2023

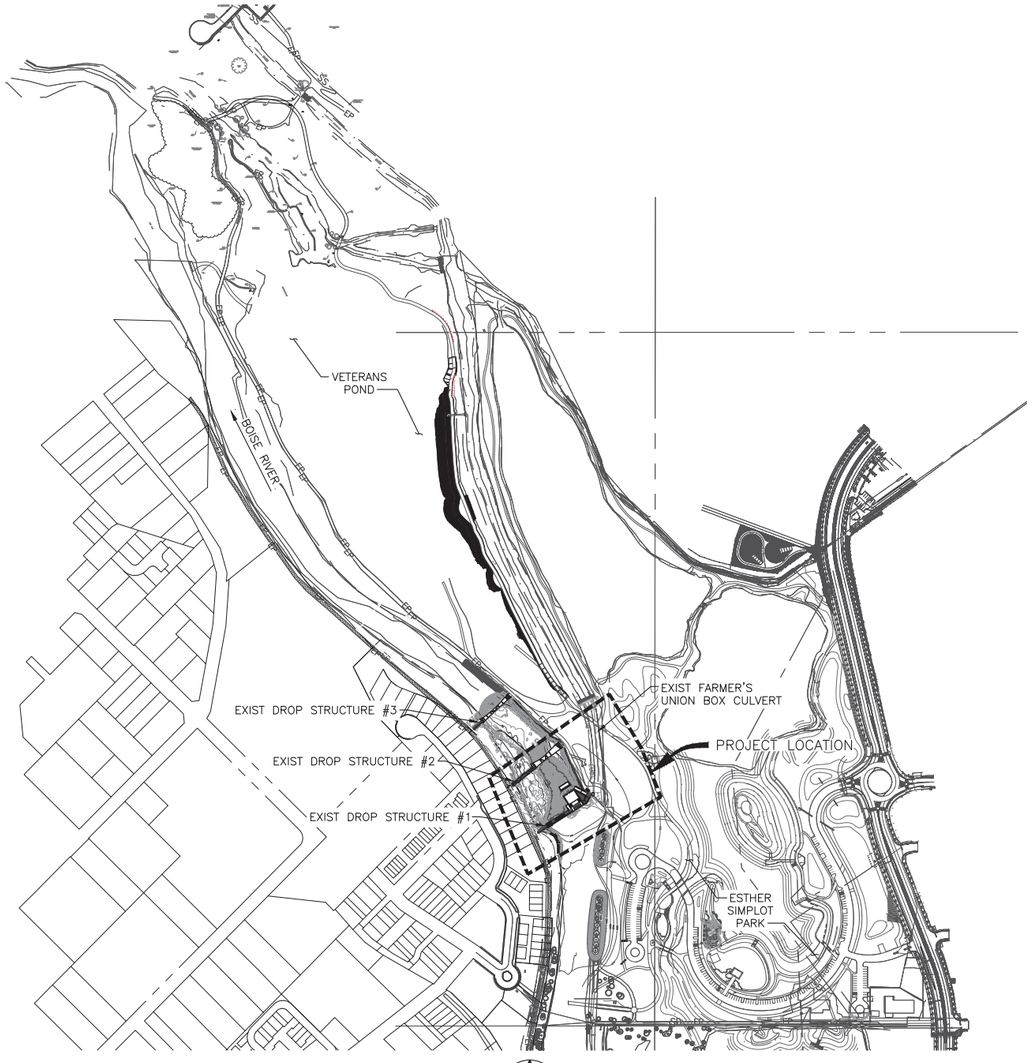
This application must be signed by the person who desires to undertake the proposed activity AND signed by a duly authorized agent (see Block 1, 2, 30). Further, 18 USC Section 1001 provides that: *"Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both".*

ATTACHMENT 2
DESIGN DRAWINGS

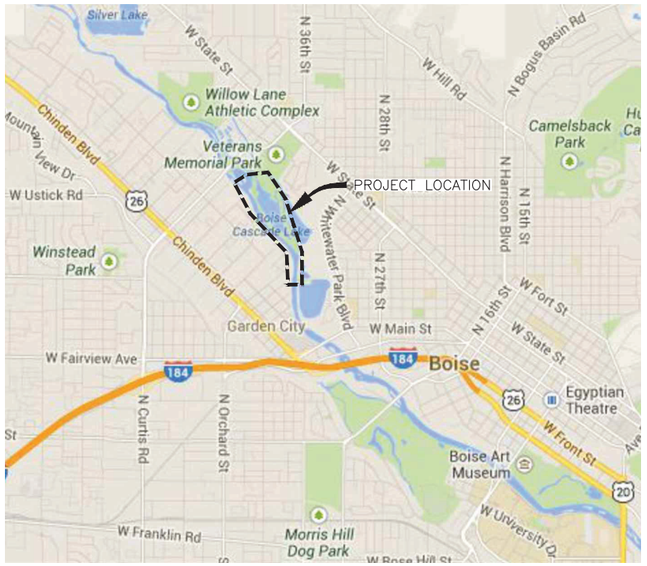
CITY OF BOISE
J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK
2023 WINTER SPILLWAY MODIFICATIONS



LOCATION MAP
NTS



PROJECT LIMITS
NTS



VICINITY MAP
NTS

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE
J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

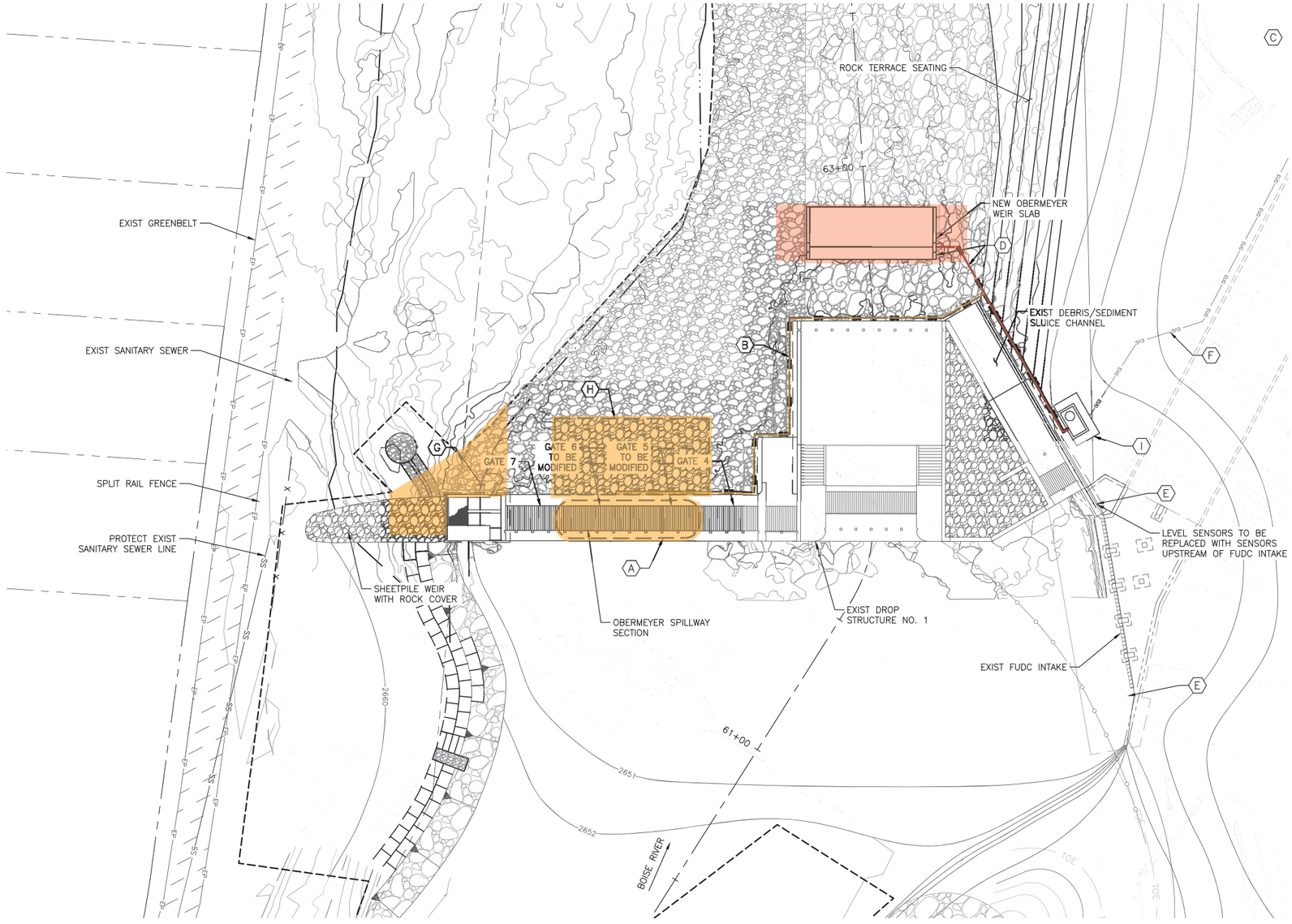
LOCATION MAP, VICINITY MAP, AND PROJECT LIMITS

DESIGNED J. BOAG
DRAWN R. WOOD
CHECKED M. McMILLEN
ISSUED DATE 08/09/23

DRAWING
G001
SHEET 1 OF 19
SCALE: AS NOTED

JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_C001.dwg Plot date: Aug 14, 2023 10:02pm



REACH 2 DROP STRUCTURE 1 DESIGN MODIFICATION PLAN

SCALE: 1"= 20'

0" 20' 40'

SHEET KEY NOTES:

- A REMOVE AND MODIFY GATES 5 AND 6 PER OBEMEYER DRAWINGS. MODIFICATIONS INCLUDE SPLITTING WEIR TO TWO (APPROXIMATELY EQUAL 10' SECTIONS) SECTIONS, ADDING SEAL LEAKS, SEAL FACING BARS, NEW SMALLER AIR BAGS, ADDING AN ADDITIONAL INCLINOMETER AND CABLE, REVISING RETAINING STRAPS. SEE OBERMEYER SHOP DRAWINGS FOR GATE MODIFICATION DETAILS.
- B ADD TWO NEW CONTROL ZONES FROM EQUIPMENT BUILDING AND ROUTE ALONG DOWNSTREAM EDGE OF STRUCTURES AS SHOWN ON MECH DRAWINGS. ENCASE LINES IN CONCRETE PER STRUCTURAL DRAWINGS.
- C CONFIGURATION OF AIR PIPING IN EQUIPMENT ROOM AS SHOWN ON MECH AND ELEC DRAWINGS. MCMILLEN TO MODIFY PLC PROGRAMMING FOR THE NEW GATE CONFIGURATION.
- D NEW 40' W X 4' TALL OBERMEYER WEIR TO BE ADDED TO STABILIZE EXISTING WAVESHAPER GATE TO BE ADDED WITH NEW SLAB, END WALLS, AIRLINE(S) AND CONDUIT AS REQUIRED BY OBERMEYER DRAWINGS.
- E ABANDON EXISTING EMBEDDED STILLING WELLS AND ADD NEW STILLING WELL UPSTREAM OF FUDC INTAKE. RUN CONDUIT ON UNDERSIDE OF EXISTING HANDRAIL, PAINT CONDUIT TO MATCH HANDRAIL.
- F ROUTE NEW AIR LINES AND CONDUIT ALONG EXISTING UTILITY ROUTING.
- G MITIGATE LEAKAGE BY INSTALLATION OF MEMBRANE ON LEFT BANK AS SHOWN ON CIVIL DRAWINGS.
- H ADD PLUNGE POOL DIRECTLY DOWNSTREAM OF MODIFIED SPILLWAY GATES PER CIVIL DRAWINGS.
- I REMOVE UNIT HEATER AND WIRING TO PURGE VALVES IN VAULT. REPLACE TERMINALS FOR INSTRUMENTATION WITH WATERPROOF HEAT SHRINK SPLICES.

Existing Structure Modifications In Boise River

New Structure In Boise River

New Structure or Modifications In Upland

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

REACH 2 DROP STRUCTURE 1
DESIGN MODIFICATION PLAN

DESIGNED J. BOAG

DRAWN R. WOOD

CHECKED M. McMILLEN

ISSUED DATE 08/09/23

DRAWING

G005

SHEET 5 OF 19

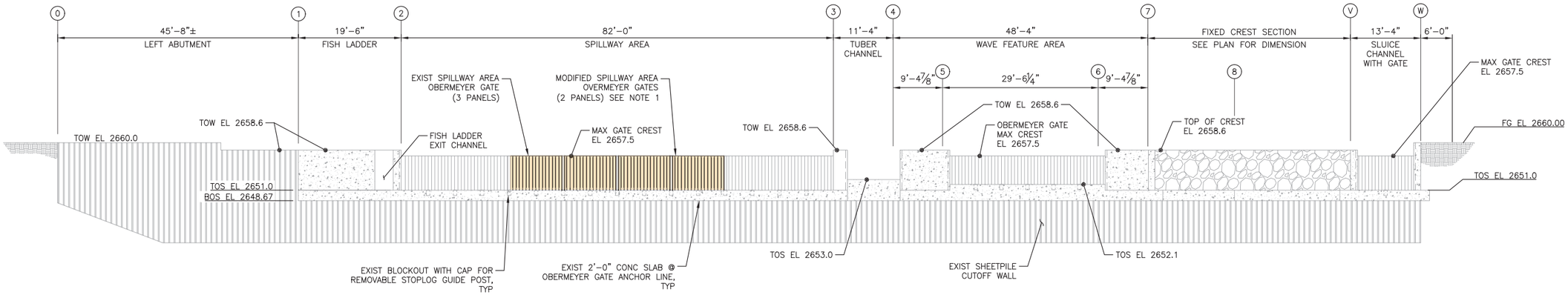
SCALE: AS NOTED

JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_G005.dwg Plot date: Aug 14, 2023 10:02pm

SHEET NOTES:

1. EXISTING GATE TO BE SPLIT INTO 2 GATES. LOCATION OF SPLIT, DESIGN OF GATES, AND ANCHORAGE REQUIREMENTS SHALL BE AS SPECIFIED BY GATE MANUFACTURER. ATTACHMENT TO CONCRETE SHALL BE AS SPECIFIED BY GATE MANUFACTURER AND THE DETAILS IN THESE DRAWINGS. NOTIFY ENGINEER OF ANY CHANGED CONDITIONS AND REQUIRED CONCRETE MODIFICATIONS NOT SHOWN IN THESE DRAWINGS.



REACH 2 – DROP STRUCTURE 1 SECTION

SCALE: 3/32"= 1'–0"

0' 8' 16'

A S101

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

REACH 2 DROP STRUCTURE 1
SECTION

DESIGNED A. JABIR

DRAWN R. WOOD

CHECKED M. MERKLEIN

ISSUED DATE 08/09/23

DRAWING

S103

SHEET----OF 19

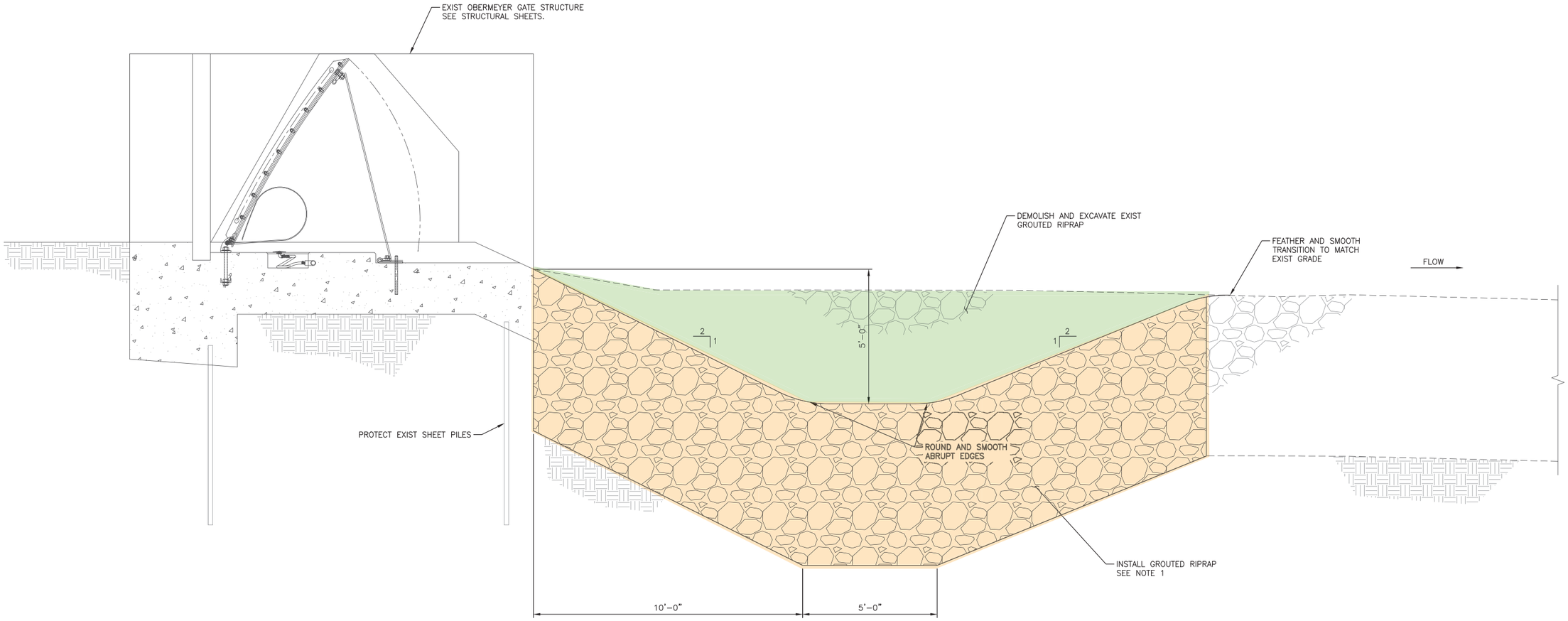
SCALE: AS NOTED

JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_S103.dwg Plot date: Aug 14, 2023 10:03pm

SHEET NOTES:

1. PLACE RIPRAP D50 = 3 FT AND GROUT TO MATCH EXIST. SEE SPECS FOR RIPRAP MATERIAL AND GROUTING METHOD. GROUTED RIPRAP SHALL BE GRINDED FOR A SMOOTH FINISH.



PLUNGE POOL SECTION

SCALE: 1/2"= 1'-0"

A C101

0' 2' 4'

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

PLUNGE POOL SECTION

DESIGNED K. VO

DRAWN R. WOOD

CHECKED M. McMILLEN

ISSUED DATE 08/09/23

DRAWING

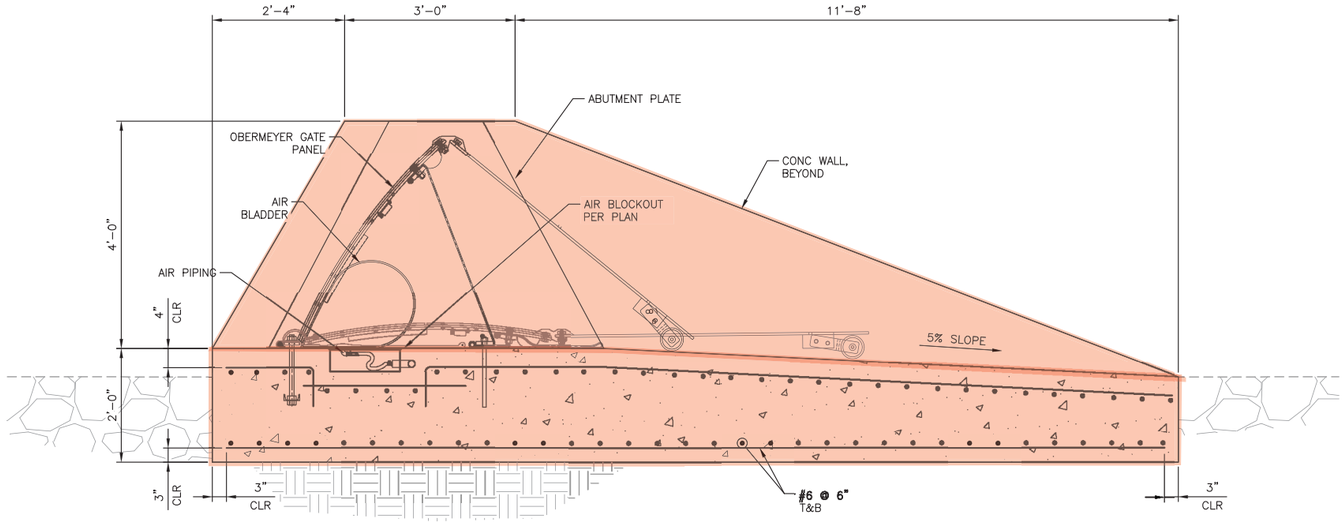
C102

SHEET----OF 19

SCALE: AS NOTED

JOB NO: 13-108

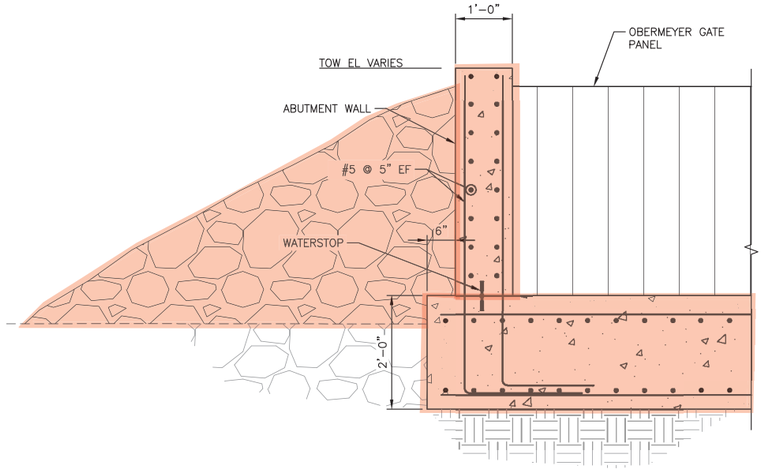
Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_C102.dwg Plot date: Aug 14, 2023 10:03pm



ADJUSTABLE WEIR SLAB FOUNDATION SECTION

SCALE: 3/4"= 1'–0"

A S107



ADJUSTABLE WEIR WALL SECTION

SCALE: 3/4"= 1'–0"

B S107

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

ADJUSTABLE WEIR SLAB FOUNDATION SECTION

DESIGNED B. BARRON

DRAWN R. WOOD

CHECKED M. MERKLEIN

ISSUED DATE 08/09/23

DRAWING S108

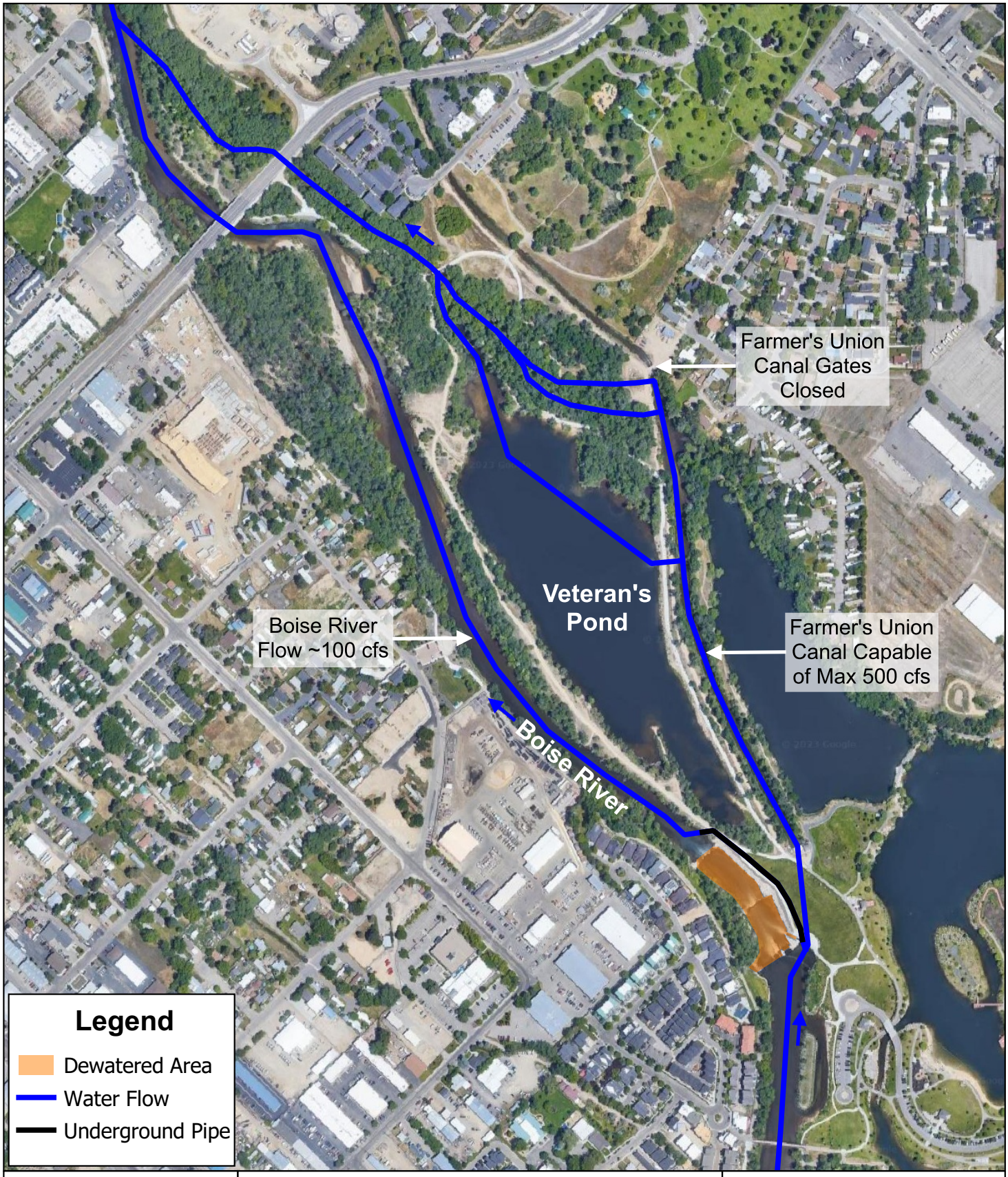
SHEET----OF 19

SCALE: AS NOTED

JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_S108.dwg Plot date: Aug 14, 2023 10:04pm

ATTACHMENT 3
TEMPORARY DEWATERING FIGURES



Adaptive Environmental Planning

Boise River Diversion Map

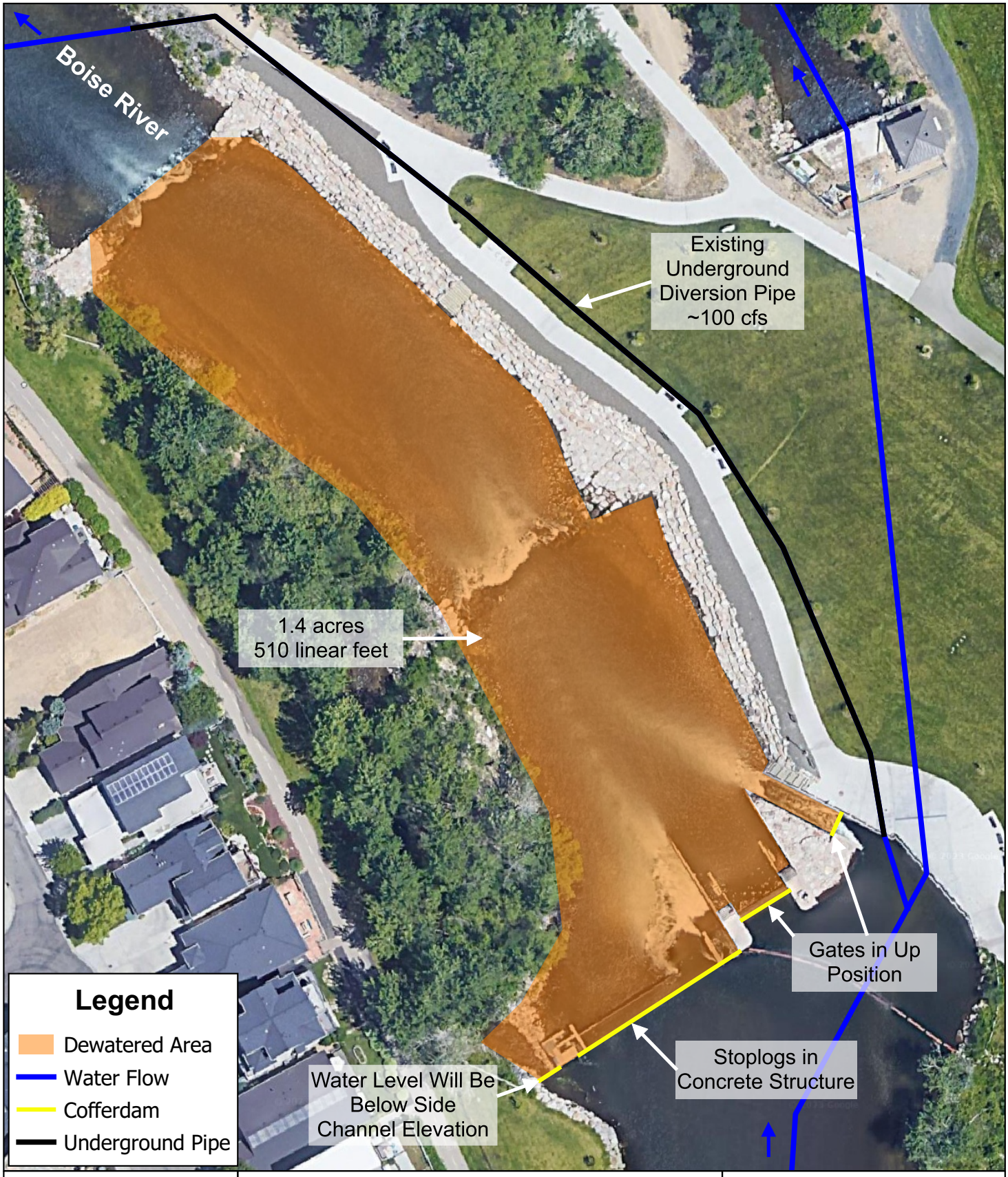
City of Boise Whitewwater Park Phase II Mods

Boise, Idaho (Ada County)

Joint Application for Permits

N

0 250 500 ft



Adaptive Environmental Planning

Boise River Dewatering Map

City of Boise Whitewwater Park Phase II Mods

Boise, Idaho (Ada County)

Joint Application for Permits

N

0 40 80 ft

ATTACHMENT 4
PHOTOGRAPHS

Photograph 1. Drop Structure 1 Gates 5 & 6 looking Downstream (October 2023).

Photograph 2. Drop Structure 1 Gates 5 & 6 and Plunge Pool Area looking Upstream (October 2023).

Photograph 3. Left Bank Side Channel Entrance and Fish Ladder looking Downstream (October 2023).

Photograph 4. Left Bank Side Channel Leakage Through Riprap and Grout (October 2023).

Photograph 5. Drop Structure 1 Wave Shaper looking Upstream (October 2023).

Photograph 6. Drop Structure 1 Sluiceway looking Upstream (October 2023).

Photograph 7. New Obermeyer Weir Location Downstream of Wave Shaper looking Downstream (October 2023).

Photograph 8. New Obermeyer Weir Location Downstream of Wave Shaper looking Upstream (October 2023).

Photograph 9. Temporary Diversion Pipe Inlet above Drop Structure 1 (October 2023).

Photograph 10. Temporary Diversion Pipe Outlet to Boise River below Drop Structure 3 (October 2023).

BOISE RIVER OUTDOOR OPPORTUNITIES

Adam Bass <abass@thebroo.com>

Whitewater Park Winter Improvements

Adam Bass <abass@thebroo.com> Fri, Dec 15, 2023 at 10:59 AM
To: "Golart, Aaron" <Aaron.Golart@idwr.idaho.gov>
Cc: "Jones, Cass" <Cass.Jones@idwr.idaho.gov>

Thank you for the follow up Mr. Golart, it appears that IDWR is nearing or has already adopted an opinion of the proposed improvements.

Does IDWR consider the proposed improvements to be in conformance with statutes it has purview of upholding?
If yes, please provide a basis for reasoning of how the proposed improvements will provide a beneficial use to the general public when it comes to the topics of recreational use, aesthetic beauty, and aquatic life?
If no, please provide a basis for reasoning of how the proposed improvements would not provide a beneficial use to the general public when it comes to the topics of recreational use, aesthetic beauty, and aquatic life?

This is in regards to water held in public trust within the OHWL of a navigable river and sounds like these topics were covered in the meeting so must have a conclusion to them.

Your efforts and thoughtful consideration are appreciated,

Adam Bass
Designated Agent
BOISE RIVER OUTDOOR OPPORTUNITIES
www.boiseriveroutdoor.com
208-519-2070
7661 W. Riverside Dr., Suite 104
Boise, ID 83714

On Fri, Dec 15, 2023 at 10:02 AM Golart, Aaron <Aaron.Golart@idwr.idaho.gov> wrote:

> Mr. Bass,
>
> IDWR does not have meeting minutes or any notes to provide and I am unaware whether the city may have any that they would be willing to provide.
>
> Have a nice weekend.
>
> Aaron

From: Adam Bass <abass@thebroo.com>
Sent: Monday, December 11, 2023 9:24 AM
To: Golart, Aaron <Aaron.Golart@idwr.idaho.gov>
Cc: Jones, Cass <Cass.Jones@idwr.idaho.gov>
Subject: Re: Whitewater Park Winter Improvements

EXHIBIT
F

Good Morning,

The wwp operation and proposed modifications are significant for BROO as a business entity and I hope IDWR understands this. To continue BROO to understand the work occurring within the OHWL of the area it is licensed to operate in, I would like to request the meeting minutes from any meetings the Idaho Department of Water Resources might have with the permittee for this project. This way BROO has an improved understanding of the decisions made about operating plans and modifications made to features within the OHWL of a navigable river. The more understanding BROO has about the features at the wwp, the more services can be planned to provide safe and quality experiences to guests.

Will IDWR provide the meeting minutes to BROO?

Thank you,

Adam Bass

Designated Agent

www.boiseriveroutdoor.com

208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Fri, Dec 8, 2023 at 11:22 AM Adam Bass <abass@thebroo.com> wrote:

> Also, to clarify what was intended by my question of defining watercraft. I am not saying the watercraft needs to be regulated but I am saying that there are types of watercraft that are suitable for rivers and others that are not. If the City provides designs to river features that impact recreation of water in public trust then it should be in the best interest of the public. Designs intended for floats that are not suited for rivers are not in the best interest of the public's recreational use of the water in public trust within the OHWL of a river channel.
>
> This article written by the National Park service provides a description of such floats the whitewater park should not be designed for as these floats are not intended for use of river recreation. https://www.nps.gov/mnrr/planyourvisit/pool-toys-are-not-watercraft.htm
>
> Thank you for your time in coordination on this matter, it is greatly appreciated,
>
> Adam Bass
>
> Designated Agent
>
> www.boiseriveroutdoor.com
>
> 208-519-2070
>
> 7661 W. Riverside Dr., Suite 104
>
> Boise, ID 83714

On Fri, Dec 8, 2023 at 11:10 AM Adam Bass <abass@thebroo.com> wrote:

> > I did misunderstand and thank you for clarifying this.
> >
> > Have a great weekend,
> >
> > Adam Bass
> >
> > Designated Agent
> >
> > www.boiseriveroutdoor.com
> >
> > 208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Fri, Dec 8, 2023 at 10:53 AM Golart, Aaron <Aaron.Golart@idwr.idaho.gov> wrote:

> Mr. Bass,
>
> I believe you misunderstood what was stated in my previous email. IDWR has not notified the City they are in violation, and we have not determined any violations have occurred. The structure(s) were permitted by the regulatory agencies and the City communicated during our meeting that the structure(s) are not functioning as designed. The current proposal is intended to correct this and by doing so addressing the concerns you have identified. It is unfortunate you feel left out of the City's process and that efforts to engage have created conflict between user groups. IDWR is committed to involving as many stakeholders as required by statute or by reasonable request. The concerns you expressed are a primary reason why IDWR called the meeting with the City to discuss the current proposal and your concerns. Regarding your question below about floating, it is not defined that I am aware of, and I only used the term as a generalization of how I assume most users would likely navigate through the area we are discussing. I am unaware whether the City or any other regulatory agency has the authority to dictate what type of watercraft is appropriate to be used on this portion of the Boise River.
>
> Regards,
>
> Aaron
>
> ---
>
> **From:** Adam Bass <abass@thebroo.com>
> **Sent:** Friday, December 8, 2023 7:28 AM
> **To:** Golart, Aaron <Aaron.Golart@idwr.idaho.gov>
> **Cc:** Jones, Cass <Cass.Jones@idwr.idaho.gov>
> **Subject:** Re: Whitewater Park Winter Improvements
>
>
>
> ---
>
> Thank you for reaching out to the City of Boise and notifying them of their past and intended violations of Idaho Code 42-3801. I have discussed such items with City officials in the past and even went as far as requesting 1.5 years ago to be included as a stakeholder in any improvements to the whitewater park since the BROO operations have significant exposure to loss from these historic violations and improvements such as the ones proposed that continue these violations. These discussions are either met with similar "commitment and desire" but with no action or with simply no action at all to uphold the public's best interest in public trust water. BROO also has significant loss of community support from this process as it has led to situations where the lack of City good faith efforts and due diligence to uphold state statute has pitted user groups against one another. In this case, BROO will likely be seen by some as hostile towards the river surfing community when it is the opposite from the truth and good relations have occurred between BROO operations and those using the wave for surfing. Had project managers included BROO as a stakeholder to provide comment early in the project modifications, this likely would have been avoided.
>
> The City must take action to show it has "commitment and desire". The best action it can take is to include stakeholders such as BROO and other outfitters in decisions about modifications made at the Whitewater Park. This is because BROO representatives have shown a greater commitment and desire to act in the best interest of water held in public trust than the City has and is likely the same for other outfitter representatives. I requested to represent BROO as a stakeholder 1.5 years ago for any improvements made to the whitewater park but have continued to be excluded from the process. Should any design changes be made to the current plans for modification, then myself acting as the BROO designated agent should be made aware of the design criteria/scope of work, the proposed design, and a chance for comment as a business with significant stake in the project that is held in higher regard than a comment from a member of the general public.
>
> You mention the term "floating", how do you define floating within the topic of recreation? Is this any watercraft able to float or watercraft specifically rated for navigating rivers? If the City intends to create a feature with an intent for pool toys to paddle through, then once again the City is not acting in the best interest of the public by risking safety through a false sense of security that watercraft not rated for rivers are safe to recreate within the river.
>
> Best Regards,
>
> Adam Bass

Designated Agent

www.boiseriveroutdoor.com

208-519-2070

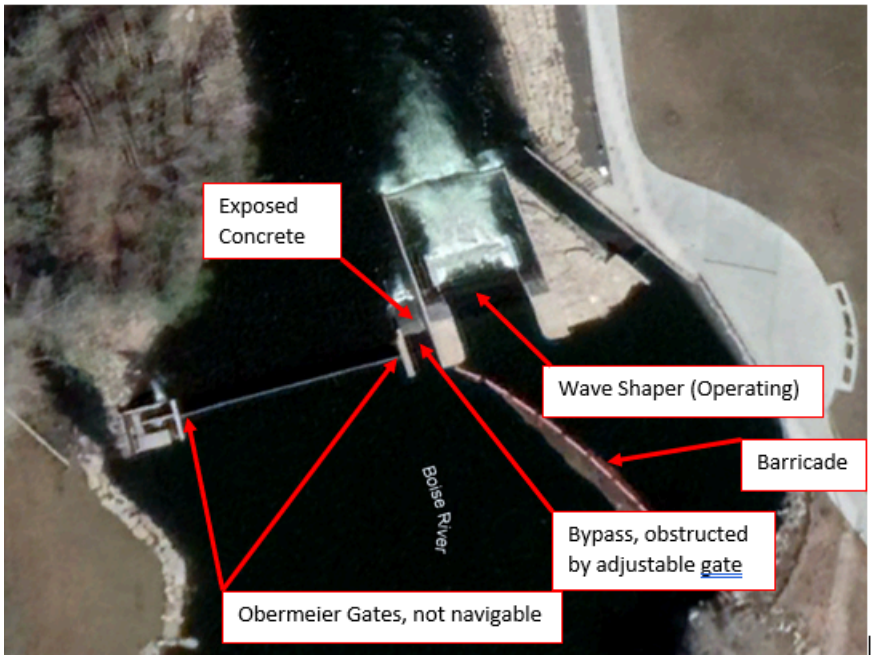
7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Thu, Dec 7, 2023 at 7:23 PM Golart, Aaron <Aaron.Golart@idwr.idaho.gov> wrote:

> Mr. Bass,
>
> IDWR agrees with you on the items outlined in blue below (aquatic life, recreation, and aesthetic beauty) being items for consideration during application review. In this case the most important being recreation, this was discussed extensively during our meeting with the City. One reason for the proposed work under the current application is to address items like the ones you have expressed concern about regarding the ability to navigate the structure(s) in the river. The City expressed commitment and desire during the meeting to address and provide the ability to float the structure(s). IDWR plans to ensure recreation is maintained, within our authority, for multiple user groups before deciding on the pending application. Your patients is appreciated and so is your involvement in the process.
>
> Sincerely,
>
> Aaron Golart
> Section Manager, Stream Channel Protection
> Idaho Department of Water Resources
> 322 E. Front St.
> P.O. Box 83720
> Boise, Idaho 83720-0098
> (208) 287-4941
> aaron.golart@idwr.idaho.gov
>
> ---
>
> **From:** Adam Bass <abass@thebroo.com>
> **Sent:** Thursday, December 7, 2023 3:38 PM
> **To:** Jones, Cass <Cass.Jones@idwr.idaho.gov>
> **Cc:** Golart, Aaron <Aaron.Golart@idwr.idaho.gov>
> **Subject:** Re: Whitewater Park Winter Improvements
>
>
>
> ---
>
> Hello Cass,
>
> Thank you for the response. I had a feeling it was going to be pushed off to Idaho Department of Lands because I didn't reiterate in the latest email the key component that does make it within the Idaho Department of Water Resources wheelhouse. As stated in a previous email of this email chain. Here is the question again with more clarification in blue:
>
> My opinion is that the general public loses access to the public trust water within the OHWL because of this use of all the water into a channel that is barricaded, see below image for reference. This diversion and barricading of water within the OHWL is not in the best interest of the general public because it is designed to provide a beneficial use to a small portion of the general public making the majority of the public lose other beneficial uses of aquatic life, recreation, and aesthetic beauty as defined in section 42-3801. Does IDWR agree or disagree with this statement?

I would be glad to provide further context for these claims if IDWR so desires in its good faith and due diligence efforts to uphold section 42-3801 of Idaho Statute.



Respectfully,

Adam Bass

Designated Agent

www.boiseriveroutdoor.com

208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Thu, Dec 7, 2023 at 3:22 PM Jones, Cass <Cass.Jones@idwr.idaho.gov> wrote:

> Adam, after reviewing your past emails and the latest one, it appears that navigability of the Boise River is your primary concern and the administration of Idaho Code Title 36 Chapter 16 that you have listed below. The Idaho Department of Lands oversees the Navigable Waterways program and serves as the state authority responsible for assessing the impact of encroachments on navigable lakes and rivers. I recommend reaching out to the Navigable Waterways section within their department to engage in further discussions regarding these concerns or questions about Title 36. IDWR met with the City of Boise on 12/5 and is evaluating the current pending application within our authority outlined within Idaho Code Title 42 Chapter 38. IDWR has no statutory authority regarding Idaho Code Title 36 Chapter 16.
>
> Respectfully,
>
> **Cass Jones**
>
> **Stream Channel Protection**
>
> **Idaho Department of Water Resources**

(208) 287-4897

Please consider the environment before printing this email

From: Adam Bass <abass@thebroo.com>
Sent: Tuesday, December 5, 2023 10:22 AM
To: Jones, Cass <Cass.Jones@idwr.idaho.gov>
Subject: Re: Whitewater Park Winter Improvements

Hi Cass,

It is important to establish an understanding of what Idaho Code 36-1601 intention is. These are the 3 sections to this law with what I understand to be the intention of them:

36-1601(a) is used to determine what rivers can be deemed navigable (Boise River has been deemed navigable so this doesn't apply to the wwp scenario)

36-1601(b) states what activities are allowed on rivers that have been deemed navigable (This applies to the wwp modifications and operation)

36-1601(c) states what happens if the allowed activities cannot be met. Due diligence and documentation of reasoning why 36-1601(b) cannot be met must occur prior to invoking section 36-1601(c).

In the case of the operation of the whitewater park the City has the ability to provide access to the allowed activities in 36-1601(b) but chooses not to. Because of this choice to disregard the superseding 36-1601(b) and jumping to invoke 36-1601(c), the City is in violation of state code.

Idaho code 42-3801 and 36-2101 describes the intention of these laws and specifically call out recreational use. The Boise River has been defined as a navigable river and by closing navigability through operations at the Boise Whitewater Park, the City has historically been in violation of state code. The current plans for modification at the Boise Whitewater Park do not show any plan to change the operation to provide navigability. In fact, the Hydraulics report uses a pejorative to describe those navigating through the feature as "stray boaters" which shows the hostility towards those navigating through the feature. Also, the hydraulics report detailing the improvements shows all the water going into the wave shaper which has historically been barricaded from navigation, see figures 12 and figures 17.

Please correct me if I am incorrect with any of these items.

Have a nice day, respectfully,

Adam Bass

Designated Agent

www.boiseriveroutdoor.com

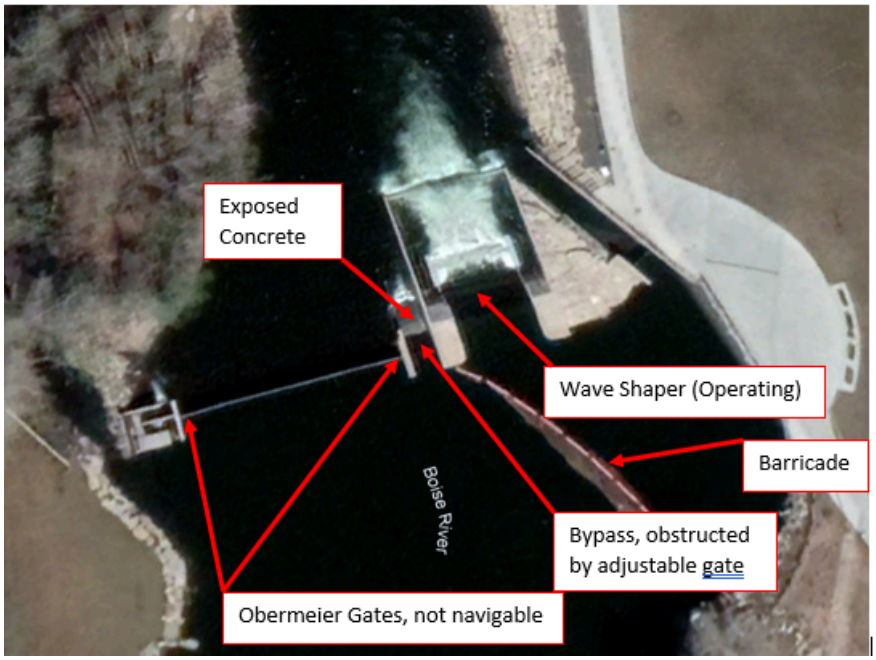
208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Wed, Nov 22, 2023 at 2:31 PM Jones, Cass <Cass.Jones@idwr.idaho.gov> wrote:

> Adam, thanks for circling back. The structures at the whitewater park serve a dual purpose, irrigation and recreation. There are many examples across the state where irrigation facilities and points of diversions become barriers to navigation, thus one of the reasons statute 36-1606 exists. IDWR plans to reach out to the City of Boise and start a dialogue on the items you have highlighted below.
>
> Thank you for bringing this to our attention.
>
> **Cass Jones**
>
> **Stream Channel Protection**
>
> **Idaho Department of Water Resources**
>
> **(208) 287-4897**
>
> **Please consider the environment before printing this email**
>
> ---
>
> **From:** Adam Bass <abass@thebroo.com>
> **Sent:** Wednesday, November 22, 2023 1:19 PM
> **To:** Public Records Request <PublicRecordsRequest@idwr.idaho.gov>
> **Cc:** Jones, Cass <Cass.Jones@idwr.idaho.gov>
> **Subject:** Re: Whitewater Park Winter Improvements
>
>
>
> ---
>
> Hi Cass,
>
> Thank you for the conversation today. To summarize what we discussed, IDWR only has purview over water within the OHWL and this water is in public trust. My complaint stems from the City operating the whitewater park that removes access to this public water by channelizing it and barricading access to the channel all within the OHWL. This channel is for the use of a small and specific portion of the public, surfers.
>
> My opinion is that the general public loses access to the public trust water within the OHWL because of this use of all the water into a channel that is barricaded, see below image for reference. Does IDWR agree or disagree with this statement?



Respectfully, have a nice Thanksgiving holiday,

Adam Bass

Designated Agent

www.boiseriveroutdoor.com

208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Mon, Nov 13, 2023 at 1:57 PM Adam Bass <abass@thebroo.com> wrote:

> Hi Megan, and Hey Cass!
>
> Could you provide a status update of the joint application for permit of the City of Boise to reconstruct the whitewater park? Has the permit been approved, is it pending, or was it denied on account of the City hindering and obstructing public users in the waterway? This is in violation of "Idaho's constitution and statutes declare all waters of the state when flowing in their natural channels, including the waters of all natural springs and lakes within the boundaries of the state and groundwaters of the state, to be public waters." as stated on the IDWR website.
>
> This hindering and obstructing includes 1) stating there is a hazard at the whitewater park without any clear definition or backing from subject matter experts 2) hindering navigation by placing signs within the easement saying "do not proceed" "hazard ahead" and "portage required" 3) bypass closing navigability during maintenance operations and bypass obstructing navigability during wave operation at Phase 2.
>
> Best Regards,
>
> Adam Bass
>
> Designated Agent

www.boiseriveroutdoor.com

208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Thu, Nov 9, 2023 at 5:01 PM Adam Bass <abass@thebroo.com> wrote:

> Thank you Megan,
>
> I have been able to coordinate with Idaho Department of Lands on this matter. My chief concern over these improvements is the following:
>
> It is a fact that the City of Boise has posted signs saying watercraft navigating the river should portage due to hazards at Phase II. A main question is, if they are reconstructing the feature, are they reconstructing the hazard so the signs can come down? If they plan to keep the signs up, I am concerned they will continue to hinder business and recreation watercraft and continue to push to require a portage around the whitewater park.
>
> The practice of the City continues to violate the IDL easement clause "the whitewater park is to be constructed and maintained in such a manner that will not obstruct, hinder, or affect navigation, recreation, or other authorized and customary use of the Boise River." The signs hinder traffic through the park by questioning whether they should portage or not as well as the City multiple times putting all the gates up at the Whitewater Park to stop safe navigation of the feature and requiring a portage.
>
> I am advocating for navigability of the Boise Whitewater Park at all times which is in line with Idaho Statute 36-1601.
>
> Thank you for any thoughts, actions, or advocacy when it comes to navigation and the enjoyment of the Boise River by the public now and into the future.
>
> Adam Bass
>
> Designated Agent
>
> www.boiseriveroutdoor.com
>
> 208-519-2070
>
> 7661 W. Riverside Dr., Suite 104
>
> Boise, ID 83714

On Thu, Nov 9, 2023 at 4:19 PM Public Records Request <PublicRecordsRequest@idwr.idaho.gov> wrote:

> Hello Adam,
>
> On **11/08/23**, the Idaho Department of Water Resources (IDWR) received your public records request regarding **all documents and any applications to receive a 404 permit within the Boise Whitewater Park for years 2023 or 2024**. Records responsive to your request are attached to this email. This fulfills your request.
>
> As a reminder, pursuant to Idaho Code § 74-120, use of any list as a mailing list or telephone list is prohibited and punishable by a civil penalty up to $1,000.
>
> If you have any questions, please feel free to call. I've also cc'd Cass Jones, one of our Stream Channel Protection Specialist. I know from our phone call on your first PRR that you're hoping to track down the permitting authority for some City of Boise activities- I think Cass could help you with information on the different agency authorities and permitting.

Thank you,

Megan Jenkins

Administrative Assistant II

Idaho Department of Water Resources

P: (208) 287-4803

https://idwr.idaho.gov/

IDAHO DEPARTMENT OF WATER RESOURCES

From: Jenkins, Megan <Megan.Jenkins@idwr.idaho.gov> **On Behalf Of** Public Records Request
Sent: Wednesday, November 8, 2023 4:43 PM
To: Adam Bass <abass@thebroo.com>; Public Records Request <PublicRecordsRequest@idwr.idaho.gov>
Subject: RE: Whitewater Park Winter Improvements

Hello Adam,

The Idaho Dept. of Water Resources received your public records request. We will respond to the request within the allowed time under Idaho Code §74-103.

Depending on the amount of information requested, we will transmit your requested documents via email. If the request produces an extraordinarily large amount of information we can save the documents on a thumb drive you provide or on a thumb drive we provide at a cost. If the Department deems the documents need a more secure method of transmission, we reserve the right to send through our Secure File Transfer Protocol Server. If you do not wish to download files from this secure server, you may request an appointment to copy the documents at our office. There is a fee for this service.

As a reminder, under Idaho Code § 74-120, the use of any list as a mailing list or telephone list is prohibited and punishable by a civil penalty up to $1,000.

If you have any questions, please feel free to call.

Thank you,

Megan Jenkins

Administrative Assistant II

Idaho Department of Water Resources

P: (208) 287-4803

https://idwr.idaho.gov/

IDAHO DEPARTMENT OF WATER RESOURCES

From: Adam Bass <abass@thebroo.com>
Sent: Wednesday, November 8, 2023 4:12 PM
To: Public Records Request <PublicRecordsRequest@idwr.idaho.gov>
Subject: Whitewater Park Winter Improvements

Hello,

This is a public records request for all documents and any applications to receive a 404 permit within the Boise Whitewater Park for years 2023 or 2024.

Thank you,

Adam Bass

Designated Agent

www.boiseriveroutdoor.com

208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

BOISE RIVER
OUTDOOR OPPORTUNITIES

MEMORANDUM

DATE: December 28, 2023

TO: Idaho Department of Water Resources
City of Boise

FROM: Adam Bass, Designated Agent, Boise River Outdoor Opportunities, LLC

RE: Proposed Whitewater Park Phase II Modifications – IDWR Response

---

The following information is submitted for your consideration during the processing of the Joint Application for Permits to construct modifications to the Boise Whitewater Park Phase II.

The information the City provided in a memo titled Boise Whitewater Park Phase II Modifications – IDWR Response gives more clarity behind a brand new operation plan that only now includes recreational navigation in proposed WWP modifications. I sincerely appreciate the attempt to reach out by providing BROO this memo and to incorporate recreational navigation into the project. Acting as designated agent of BROO operations, I cannot support the modifications proposed or this very new operation plan. This first inclusionary attempt is very late in the process of a project with significant issues/concerns, which only now to be understood, the BROO operation has particular interest in. The issues/concerns are the following, and I understand this is a long list but this is the first chance for input so there is a lot to present:

1.a. Management of river feature operations - The City email to BROO with the memo attached states "inability to work within the river corridor this winter, we will be forced to operate the wave as it has been done in the 2020-2023 seasons." I wholeheartedly disagree because there are numerous and varying ways that operations can occur on a dynamic river environment and discussion of ways to improve upon the current operation should be fostered. The feature has numerous adjustable gates, and the river has numerous flows. Therefore, the wave feature has more ability than to have the same operation as previously done in the 2020-2023 season.

1.b. Management of project and operation on a navigable river – Navigation was never included in the design criteria for the modifications and therefore wasn't included in design. Navigability is critical for recreational enjoyment by the general public within a deemed navigable river.

The past operation chooses to close the river feature of recreational navigability to form a surf wave and for maintenance. This is also counter to the advertised "downriver stretch of the river" listed on the WWP website (https://www.boisewhitewaterpark.com/phase-2-updates).

Further, at a Parks and Recreation Commissioner meeting it was unsure of the outcome the proposed modifications would have. The planned operations and management would have on the river feature. This is like the approach taken with past modifications to support the wave at drop feature 1, that failed.

1.c. Management of critical information about river conditions - The City failed to respond within time limits specified in the Idaho Public Records Law Manual. This request made, was the following: "*formal declaration from designers, modelers, or professional subject matter experts that the whitewater park is "unsafe" and a portage should be required. This might be a memo, email, or other type of correspondence including contract documents."* This public records request was made on August 2nd and was responded to on September 14th. Such information of deemed hazards should be provided in a timely manner to bonded and licensed outfitters with operations on the river.

2.a. Recreation – General recreation issues are the following:

- The City has agreed it has committed past violations of Idaho Code by closing the river of recreational navigation. City statement, "There were times however, during monitored sessions, when low flows in the river required the tuber bypass to be closed to maintain wave shape and performance…". A choice is made to close the river of recreational navigation for the wave.
- The City put unreasonable mandatory portages into BROO outfitting contract documents.
- The City ignored notifications from BROO licensed officials of the operation plan to close recreational navigability at the WWP in summer of 2023.
- The project design continued in the summer and fall with design criteria excluding recreational navigability aspects. Offensively, a pejorative "stray boater" was described in the Hydraulics Report rather than using a more fitting term such as navigating watercraft.
- The modifications only include drop structure 1 but why is there no discussion about improvements to the second drop feature in this originally described "downriver stretch of the river" (https://www.boisewhitewaterpark.com/phase-2-updates). Drop structure 2 could also use some updates to meet the original design plan for downriver recreation. Therefore to meet original design intent, a modification should also be completed at drop structure 2 for a certificate of completion to be issued.

2.b. Recreational Safety - The City has arbitrarily deemed the wave feature hazardous and for experts only, created and then attempted to institute a required portage around the feature. It is very concerning to have City officials determine what is or is not safe on a river and to instigate portages around what a City official may arbitrarily determine to be a "hazard".

The proposed project does not intend to adjust this "hazardous" feature but to support it by building a wall behind the feature. This lack of fixing such a "hazard" but rather creating more unnatural features immediately downstream is a concerning approach. To accommodate recreational navigation, which apparently only is recently understood to be required, the operation plans to allow recreational watercraft through the "hazardous" feature.

3. Aesthetic Beauty - More unnatural gates in the river, how does this aid in the aesthetics of the river? Also, I personally don't like the aesthetics of seeing repairs being done on a regular basis when money can be spent better elsewhere within the Ordinary High Water Line of the Boise River. The additional river feature gates will cost more and more from year to year to maintain any "aesthetic beauty" it might have when working properly.

4. Fish and wildlife.- This project doesn't aid aquatic organisms due to constructing grouted in place rock which negatively impacts aquatic insect habitat.

All of my previous attempts with the City to raise these issues/concerns regarding recreational navigation, aesthetic beauty, and aquatic life ideas in proposed modifications and operational decisions have been met with stonewall practices. The City has not sought to understand the impacts these exclusionary practices have already had, which is unfortunate, but I look positively towards future BROO operations regardless. In conclusion, and acting as designated agent of BROO Outfitter Licenses #22388 and #24327, I urge the Idaho Department of Water Resources Director to thoroughly examine the impact of the proposed modifications and review the original and newly planned operational changes to the water it holds in public trust. I also encourage coordination with other state departments about their opinions. Also, I respectfully request the director to respond to the following question:

Does IDWR consider the proposed improvements, historical operations, and planned operations to be in conformance with statutes it has purview of upholding?
If yes, please provide a basis for reasoning of how the proposed improvements and planned operations will provide a beneficial use to the general public when it comes to the topics of recreational use, aesthetic beauty, and aquatic life.
If no, please provide a basis for reasoning of how the proposed improvements and planned operations would not provide a beneficial use to the general public when it comes to the topics of recreational use, aesthetic beauty, and aquatic life.

Further, the City's new operational plan to have recreational watercraft navigate through the feature conflicts with its current hydraulics report because the report doesn't adequately describe this concept and corresponding operation. I request a revision to the Hydraulics Report to include recreational navigation design descriptions and remove the term "stray boater". It should then be reissued to the general public for public comment.

Another separate report should include intended traffic movements for the river feature, both recreational watercraft and surfers. The City needs to study these issues more if it plans to construct adjustable features in a navigable river rather than coming up with a shoot from the hip attempt to incorporate recreational navigation. This last minute and thrown together attempt to include recreational navigation is deeply concerning for this permanent long term structure that is proposed.

The IDWR Director should be aware, if the City has not disclosed it yet, there is potential for a conflict of interest in this situation. This being due to a choice by the City to exclusively market the services of another Licensed Outfitter through the Float the Boise Program, which recently began in 2023 (https://www.floattheboise.org/pages/4ff6d0f8eace44e785bc15bed7af7be8). BROO has requested to be included in this Float the Boise Program since it has the same license as the other outfitter and also has a paddle rafting operation, but the request was unreasonably denied. The other outfitter would not be affected by this proposed project and corresponding impacts to recreational navigability because it does not operate through the WWP. Therefore, the City may be incentivized to not include navigability because reducing BROO's ability to navigate the feature will further benefit the outfitter it has chosen to provide an exclusive benefit to through the new Float the Boise Program.

I do continue to be optimistic for future collaborations despite this WWP modification project and hope the City will continue a practice that engages stakeholders through due diligence and good faith efforts going forward in relation to projects within the OHWL of a navigable river. It is encouraging that much education has been gained for this particular topic by myself and I hope the same by other involved officials as well. Our community must seek to build on this knowledge to further understand the roles and responsibilities our respective occupations hold as officials of a municipality, officials of a licensed outfitter, among many other officials. After all, we are both here to hold good faith efforts and due diligence actions that are in the best interest of the community, the ecosystem, and that foster proper commerce. When dealing with very dynamic navigable rivers, it is tremendously important that we act and seek to benefit all the overarching interests regarding stakeholders and these topics.

In regards to the exclusionary practices towards BROO guides by the City that includes related aspects to the proposed improvements at the Boise Whitewater Park:
I respectfully would like to point out to the Boise Parks and Rec Department about the Boise River Natural Resource Management and Master Plan that discusses a river ranger program for benefiting public safety. My perspective is that a "ranger" and a "guide" are the same thing except for that a guide is trained, licensed, and works for an insured and bonded outfitter, which is likely better. Everyone should appreciate the work of guides on a natural resource, they are such positive forces for encouraging understanding of the place we live in. They also already have difficult jobs without the City's unpredictable operation at the whitewater park. I remain hopeful the City one day will realize the opportunity to be and act as a partner to support licensed guiding and proper river commerce.

Adam Bass

Adam M. Bass

Digitally signed by Adam M. Bass
DN: C=US, E=bassadam16@gmail.com, CN=Adam M. Bass
Date: 2023.12.28 17:34:33-07'00'

Designated Agent

BOISE RIVER
OUTDOOR OPPORTUNITIES

www.boiseriveroutdoor.com
208-519-2070
7661 W. Riverside Dr., Suite 104
Boise, ID 83714

IDAHO DEPARTMENT OF
WATER RESOURCES

322 E Front Street, Suite 648, Boise ID 83702 • PO Box 83720, Boise ID 83720-0098
Phone: 208-287-4800 • Fax: 208-287-6700 • Email: idwrinfo@idwr.idaho.gov • Website: idwr.idaho.gov

Governor Brad Little Director Mathew Weaver

January 24, 2024

Sara Arkle
City of Boise – Parks and Recreation
1104 Royal Blvd.
Boise, ID 83706

RE: Joint Application for Permit No. S63-21092
Boise River – WWP Maintenance

Dear Ms. Arkle,

The Idaho Department of Water Resources (IDWR) has reviewed your above referenced application for a permit to alter the Boise River. IDWR has prepared a decision as provided for in Section 42-3805, Idaho Code. The conditions set forth in this permit are intended to prevent degradation of water quality, protect fish and wildlife habitat, and protect the long-term stability of the stream channel. If you cannot meet the conditions set forth in the permit, please contact this office for further consideration.

Your project has been determined to meet the Stream Channel Alteration Rules, IDAPA 37.03.07 Minimum Standards (Rule 55). You may consider this letter a permit to construct your project according to your application, received October 23, 2023, the administrative memo dated December 15, 2023, the revised hydraulics analyses submitted on December 29, 2023, and the updated diagrams you provided on January 3, 2024. Project activities include five (5) specific modifications to the Whitewater Park including:

- Modifications to gates five (5) and six (6) of the spillway to increase flexibility of operations through varying flow conditions. Two (2) existing 20-foot wide gates will be replaced with four (4) 10-foot wide gates and a five (5) foot plunge pool will be excavated below the spillway.
- New air lines will be installed along the existing routing path from the control building to the spillway gates. Approximately three (3) cubic yards of grouted riprap will be excavated, and three (3) cubic yards of grout and concrete will be discharged to install the new airlines.
- Repair leaks occurring between a side channel on the left descending bank and the main channel. Approximately 50-cubic yards of grouted riprap will be excavated, and approximately 50-cubic yards of concrete and grout will be discharged to install a membrane.
- Install a new Obermeyer gate downstream of Drop Struture 1. Approximately 40-cubic yards of streambed material will be excavated, and approximately 54-cubic yards of concrete and 21-cubic yards of clean angular rock riprap will be discharged to construct the gate. A temporary log boom will be relocated and placed in a way that allows downriver passage through Drop Structure 1.

Dewatering will occur between Drop Struture 1 and Drop Structure 3. Approximately 510-feet of the Boise River will be dewatered to allow work to occur in the dry. The applicant will coordinate with Idaho Department of Fish and Game on a fish salvage plan to help reduce stranding.

The project location is within Section 05, Township 03 North, Range 02 East, Ada County, Idaho

Failure to adhere to the conditions as set forth herein can result in legal action as provided for in Section 42-3809, Idaho Code. This project is subject to the following Minimum Standards, Special and General Conditions.

MINIMUM STANDARDS:

These standards are established in the Administrative Rules of the Idaho Water Resources Board; Stream Channel Alteration Rules, IDAPA 37.03.07 dated July 1, 2021, and are enclosed with this permit.

Rule 56 – Construction Procedures

SPECIAL CONDITIONS:

[1] All construction shall be completed in accordance with the descriptions and methods on the application, memo, hydraulic analyses, and diagrams attached herewith. This office must approve any changes prior to construction.

[2] All construction activities shall be conducted in such a manner as to minimize turbidity and comply with Idaho water quality standards. Construction shall take place during low flow and in dewatered areas to minimize turbidity and protect water quality.

[3] Dewatering of the Boise River shall be gradual (over 24 hours) behind coffers or within bypass reaches to promote fish escapement and reduce stranding. Fish salvage should be coordinated with Idaho Department of Fish and Game.

[4] In water work shall be conducted during low flow conditions, if flows are predicted to exceed 800 cfs the permittee shall contact IDWR to prepare and coordinate a shutdown plan of in-water activities.

[5] Log boom shall be placed according to diagram G005, allowing downriver passage through Drop Structure 1 immediately after construction is completed or before the permit expires on March 1, 2025.

[6] Cass Jones, IDWR Stream Protection Program 208-287-4897, shall be contacted within fourteen (14) days of completion of the project to schedule an inspection.

[7] Silt fencing or other erosion/sediment control measures shall be installed between any area of earth disturbance and the water. Erosion and sediment control measures must be installed during construction, according to the manufacturer's specifications, and must be maintained until construction is completed and the disturbed ground is revegetated and stable.

[8] All temporary structures, excess excavated material, and vegetative or construction debris shall be disposed of out of the stream channel where it cannot reenter the channel. All construction debris shall be removed from the site and disposed of properly.

[9] All fuel, oil, and other hazardous materials shall be stored and equipment refueled away from the stream channel to ensure that a spill will not enter the waterway. Equipment must be free of fuel and lubricant leaks. The operator shall have spill control materials available at all times during this project. These spill control materials shall include, but not be limited to, fuel and/or oil absorbent booms and absorbent pads. In the event of a release greater than 25 gallons of fuel or oil to the ground or to surface waters, the Idaho State Communications Center shall be contacted at 1-800-632-8000.

[10] Permittee is responsible for all work done by any contractor or sub-contractor and shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this authorization.

[11] This permit shall expire March 1, 2025.

GENERAL CONDITIONS:

1. This permit does not constitute any of the following:
   a. An easement or right-of-way to trespass or work upon property belonging to others.
   b. Other approval that may be required by Local, State or Federal Government, unless specifically stated in the special conditions above.
   c. Responsibility of IDWR for damage to any properties due to work done.
   d. Compliance with the Federal Flood Insurance Program, FEMA regulations, or approval of the local Planning and Zoning authority.

2. In accordance with Sections 55-2201 - 55-2210, Idaho Code, the applicant and/or contractors must contact Digline statewide phone number 1-800-342-1585 (Boise area 208-342-1585) not less than three working days prior to the start of any excavation for this project.

3. The permit holder or operator must have a copy of this permit at the alteration site, available for inspection at all times.

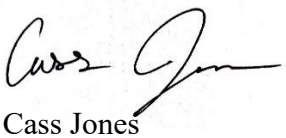
4. IDWR may cancel this permit at any time that it determines such action is necessary to minimize adverse impact on the stream channel.

Failure to adhere to conditions as set forth herein can result in legal action as provided for in Section 42-3809, Idaho Code.

If you object to the decision issuing this permit with the above conditions, you have 15 days in which to notify this office in writing that you request a formal hearing on the matter. If an objection has not been received within 15 days, the decision will be final under the provisions of IDAPA 37.03.07 (Rule 70).

Please contact Cass Jones 208-287-4897 or cass.jones@idwr.idaho.gov if you have any questions regarding this matter.

Sincerely,



Cass Jones
Stream Channel Protection
Idaho Department of Water Resources

cc: Josh Wilson, City of Boise
Dean Johnson, Idaho Department of Lands, Boise
Brandon Flack, Idaho Department of Fish & Game, Boise
Chase Cusack and Lance Holloway, Idaho Department of Environmental Quality, Boise
US Army Corps of Engineers, Boise
Aaron Golart and Katie Gibble, Idaho Department of Water Resources, Boise
Adam Bass, Boise River Outdoor Opportunities, Boise

056. CONSTRUCTION PROCEDURES (RULE 56).

01. Conformance to Procedures. Construction shall be done in accordance with the following procedures unless specific approval of other procedures has been given by the Director. When an applicant desires to proceed in a manner different from the following, such procedures should be described on the application. (3-18-22)

02. Operation of Construction Equipment. No construction equipment shall be operated below the existing water surface without specific approval from the Director except as follows: Fording the stream at one (1) location only will be permitted unless otherwise specified; however, vehicles and equipment will not be permitted to push or pull material along the streambed below the existing water level. Work below the water which is essential for preparation of culvert bedding or approved footing installations shall be permitted to the extent that it does not create unnecessary turbidity or stream channel disturbance. Frequent fording will not be permitted in areas where extensive turbidity will be created. (3-18-22)

03. Temporary Structures. Any temporary crossings, bridge supports, cofferdams, or other structures that will be needed during the period of construction shall be designed to handle high flows that could be anticipated during the construction period. All structures shall be completely removed from the stream channel at the conclusion of construction and the area shall be restored to a natural appearance. (3-18-22)

04. Minimizing Disturbance of Area. Care shall be taken to cause only the minimum necessary disturbance to the natural appearance of the area. Streambank vegetation shall be protected except where its removal is absolutely necessary for completion of the work adjacent to the stream channel. (3-18-22)

05. Disposal of Removed Materials. Any vegetation, debris, or other material removed during construction shall be disposed of at some location out of the stream channel where it cannot reenter the channel during high stream flows. (3-18-22)

06. New Cut of Fill Slopes. All new cut or fill slopes that will not be protected with some form of riprap shall be seeded with grass and planted with native vegetation to prevent erosion. (3-18-22)

07. Fill Material. All fill material shall be placed and compacted in horizontal lifts. Areas to be filled shall be cleared of all vegetation, debris and other materials that would be objectionable in the fill. (3-18-22)

08. Limitations on Construction Period. The Director may limit the period of construction as needed to minimize conflicts with fish migration and spawning, recreation use, and other uses. (3-18-22)

October 23, 2023

To: Idaho Department of Water Resources
Stream Channel Protection Program
(submitted electronically to: file@idwr.idaho.gov)

Subject: Boise Whitewater Park Phase II Modifications Project
Re: Joint Application for Permits

On behalf of the City of Boise, please find enclosed the Joint Application for Permits (JAP) for the Boise Whitewater Park Phase II Modifications Project. Work is proposed for winter 2023/2024 in the Boise River during the non-irrigation season when flows are expected to be at their lowest volume.

Included in the application package is:
1. Joint Application for Permits
2. Design Drawings
3. Temporary Dewatering Figures
4. Photographs

Based upon a review of Endangered Species Act and National Historic Preservation Act information, proposed modifications to the Boise Whitewater Park Phase II outlined in this JAP will not impact species or cultural/historical sites greater than the analysis conducted for the original permits (S63-20701).

If you have any questions regarding this application, please feel free to contact me at greg@adaptiveenviro.com / 208-340-5721 (cell) with any questions. I look forward to working with you on this project.

Sincerely,

Greg Allington / Adaptive Environmental Planning, LLC (Senior Biologist)
Authorized Agent

cc: Sara Arkle (Parks Resource Superintendent) – City of Boise Parks and Recreation Department
sarkle@cityofboise.org / 208-608-7637

Mort McMillen, PE (Engineer) – McMillen
mortmcmillen@mcmillen.com / 208-342-4214 (Office) / 208-830-1394 (Cell)

ATTACHMENT 1
JOINT APPLICATION FOR PERMITS

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authorities: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. Applicant will need to send a completed application, along with one (1) set of legible, black and white (8½"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY

USACE NWW-	Date Received:	☐ Incomplete Application Returned	Date Returned:
Idaho Department of Water Resources No.	Date Received:	☐ Fee Received DATE:	Receipt No.:
Idaho Department of Lands No.	Date Received:	☐ Fee Received DATE:	Receipt No.:

INCOMPLETE APPLICANTS MAY NOT BE PROCESSED

1. CONTACT INFORMATION - APPLICANT Required:			2. CONTACT INFORMATION - AGENT:		
Name: Sara Arkle-Parks Resource Superintendent			Name: Greg Allington		
Company: City of Boise-Parks and Recreation Department			Company: Adaptive Environmental Planning		
Mailing Address: 1104 Royal Blvd			Mailing Address: 2976 East State Street, Ste. 120 #431		
City: Boise	State: ID	Zip Code: 83706	City: Eagle	State: ID	Zip Code: 83616
Phone Number *(include area code)*: 208-608-7637	E-mail: sarkle@cityofboise.org		Phone Number *(include area code)*: 208-340-5721	E-mail: greg@adaptiveenviro.com	

3. PROJECT NAME or TITLE: Boise Whitewater Park Phase II Modifications			4. PROJECT STREET ADDRESS: 3206 W Pleasanton Ave.	
5. PROJECT COUNTY: Ada	6. PROJECT CITY: Boise		7. PROJECT ZIP CODE: 83702	8. NEAREST WATERWAY/WATERBODY: Boise River
9. TAX PARCEL ID#: S1004325655	10. LATITUDE: 43.628478 LONGITUDE: -116.234613	11a. 1/4:	11b. 1/4: 11c. SECTION: 5	11d. TOWNSHIP: 3N 11e. RANGE: 2E
12a. ESTIMATED START DATE: Dec 1, 2023	12b. ESTIMATED END DATE: Feb 29, 2024	13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? ☒ NO ☐ YES Tribe:		
13b. IS PROJECT LOCATED IN LISTED ESA AREA? ☒ NO ☐ YES		13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? ☒ NO ☐ YES		

14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks.

From W State Street in Boise travel south on N Whitewater Park Blvd until you reach the Esther Simplot Park main entrance. Follow the drive over the bridge to the western-most parking lot adjoining the Boise River.

15. PURPOSE and NEED: ☐ Commercial ☐ Industrial ☒ Public ☐ Private ☐ Other

Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project.

The purpose of the project is repair/modify components of the existing Whitewater Park Phase II Drop Structure 1 to improve public safety and enhance functionality of the existing facilities.

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

Refer to the attached Design Plans for detailed locations of the following PERMANENT features (all impacts are within the OHWM of the Boise River (perennial stream) and there are no wetland impacts):
-Modify Gates 5 & 6 on Drop Structure 1 (Drawing G005 Key Note "A")
Net 0 CY / 0 SF
-New Plunge Pool downstream of Gates 5 & 6 (Drawing G005 Key Note "H")
Excavate 412 CY & Fill 278 CY (riprap and grout) / 1,250 SF
-New Air Pipe Lines to Gates 5 & 6 (Drawing G005 Key Note "B")
Excavate 3 CY (riprap and grout) & Fill 3 CY (concrete, grout, and pipe) / 53 SF
-Repair Leakage on Left Bank (Drawing G005 Key Note "G")
Excavate 50 CY (riprap and grout) & Fill 50 CY (concrete, grout, and membrane) / 660 SF
- New Obermeyer Weir downstream of Wave Shaper (Drawing G005 Key Note "D")
Excavate 40 CY & Fill 54 CY (concrete and gate) & Fill 21 CY (riprap) / 714 SF
Refer to the attached Temporary Dewatering Figures for detailed locations of the following TEMPORARY features (all impacts are within the OHWM of the Boise River (perennial stream) and there are no wetland impacts):
-Boise River Dewatering between Drop Structures 1 and 3 (Dewatering Figures)
Dewater 1.4 acres / 510 linear feet and complete fish salvage (fish will be relocated downstream in the Boise River in coordination with IDFG)
100 cfs will be diverted around the work area and discharge back to the Boise River downstream of Drop Structure 3
All flow above 100 cfs will be diverted into the Farmer's Union Canal which flows back to the Boise River downstream of Veteran's Memorial Parkway

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

There were no other alternatives considered to repair/modify the existing structures.

Impacts to the Boise River from the repairs/modifications and the new Obermeyer Weir are all within the previously approved disturbance area for the Whitewater Park Phase II.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

The repairs/modifications are being implemented in the previously approved disturbance area for the Whitewater Park Phase II resulting in 0.045 acres of impacts.

The new Obermeyer Weir is proposed for installation in the previously approved disturbance area resulting in 0.016 acres of impact.

There is no mitigation proposed for this project.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil:	_____	cubic yards
Dredged Material:	_____	cubic yards
Clean Sand:	_____	cubic yards
Clay:	_____	cubic yards
Gravel, Rock, or Stone:	_____	cubic yards
Concrete:	_____	cubic yards
Other (describe): _____	: _____	cubic yards
Other (describe: _____	: _____	cubic yards

TOTAL:_____ cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling:	_____	acres	_____ sq ft.	_____ cubic yards
Backfill & Bedding:	_____	acres	_____ sq ft.	_____ cubic yards
Land Clearing:	_____	acres	_____ sq ft.	_____ cubic yards
Dredging:	_____	acres	_____ sq ft.	_____ cubic yards
Flooding:	_____	acres	_____ sq ft.	_____ cubic yards
Excavation:	_____	acres	_____ sq ft.	_____ cubic yards
Draining:	_____	acres	_____ sq ft.	_____ cubic yards
Other: _____	: _____	acres	_____ sq ft.	_____ cubic yards

TOTALS: _____ acres _____ sq ft._____ cubic yards

21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT? ☒ NO ☐ YES If yes, describe ALL work that has occurred including dates.

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

USACE & IDEQ: NWW-2009-00090
IDWR: S63-20701

23. ☒ YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: N/A Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY? ☐ NO ☒ YES If yes, contact the floodplain administrator in the local government jsrisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.
See Instruction Guide for further clarification and all contact information.

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:

☐ NO ☒ YES Is applicant willing to assume that the affected waterbody is high quality?
☐ NO ☒ YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?
☒ NO ☐ YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICTES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

Water will be diverted out of the active construction area using a combination of temporary cofferdams and raising the existing gates on the wave shaper and sluiceway. The main flood control weirs have infrastructure built into the concrete and stoplogs/plastic sheeting will be used to cofferdam water. The water surface elevation will be lowered upstream of Drop Structure 1 and water will be lower than the entrance elevation into the side channel on the left bank by the fish ladder.

0-100 cfs will be diverted into the existing underground diversion pipe that was used during the initial construction of the Whitewater Park. Any flow above 100 cfs will be diverted into the Farmer's Union Canal intake which returns to the Boise River downstream of Veteran's Memorial Parkway. No flow will enter the Farmer's Union Canal past their intake gate structure.

All construction work will be performed in the dry. Dewatering pumps will be installed on an as-needed basis and the hoses will outlet downstream of the active work area back into the Boise River.

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
			TOTAL STREAM IMPACTS (Linear Feet):	

28. LIST EACH WETLAND IMPACT include mechanized clearing, fill excavation, flood, drainage, etc. Attach site map with each impact location.

Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft
NONE				
			TOTAL WETLAND IMPACTS (Square Feet):	

29. ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: Provide contact information of ALL adjacent property owners below.

Name: Waterfront District HOA Inc. Mailing Address: PO Box 45387 City: Boise State: Zip Code: 83711 Phone Number (include area code): NA E-mail: NA	Name: Idaho State Parks & Recreation Mailing Address: 5657 E Warm Springs Ave City: Boise State: ID Zip Code: 83712 Phone Number (include area code): NA E-mail: NA
Name: Farmers Union Ditch Co LTD Mailing Address: Po Box 1474 City: Eagle State: ID Zip Code: 83616 Phone Number (include area code): NA E-mail: NA	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:

30. SIGNATURES: STATEMENT OF AUTHORIAZATION / CERTIFICATION OF AGENT / ACCESS

Application is hereby made for permit, or permits, to authorize the work described in this application and all supporting documentation. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein; or am acting as the duly authorized agent of the applicant (Block 2). I hereby grant the agencies to which this application is made, the right to access/come upon the above-described location(s) to inspect the proposed and completed work/activities.

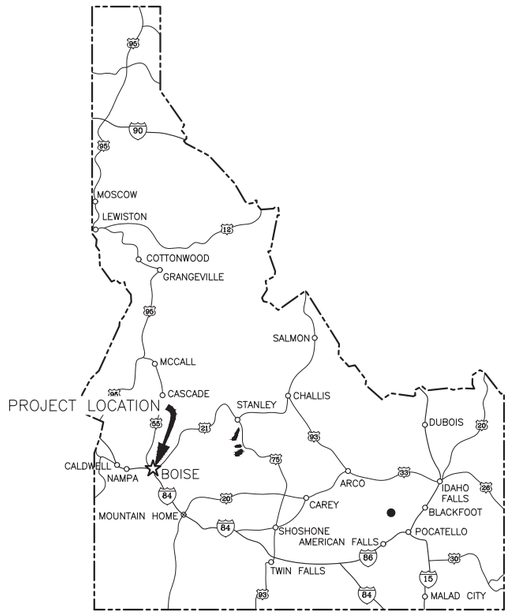
Signature of Applicant: _____ *Date:* 10/23/23

Signature of Agent: Greg Allington *Date:* 10/23/2023

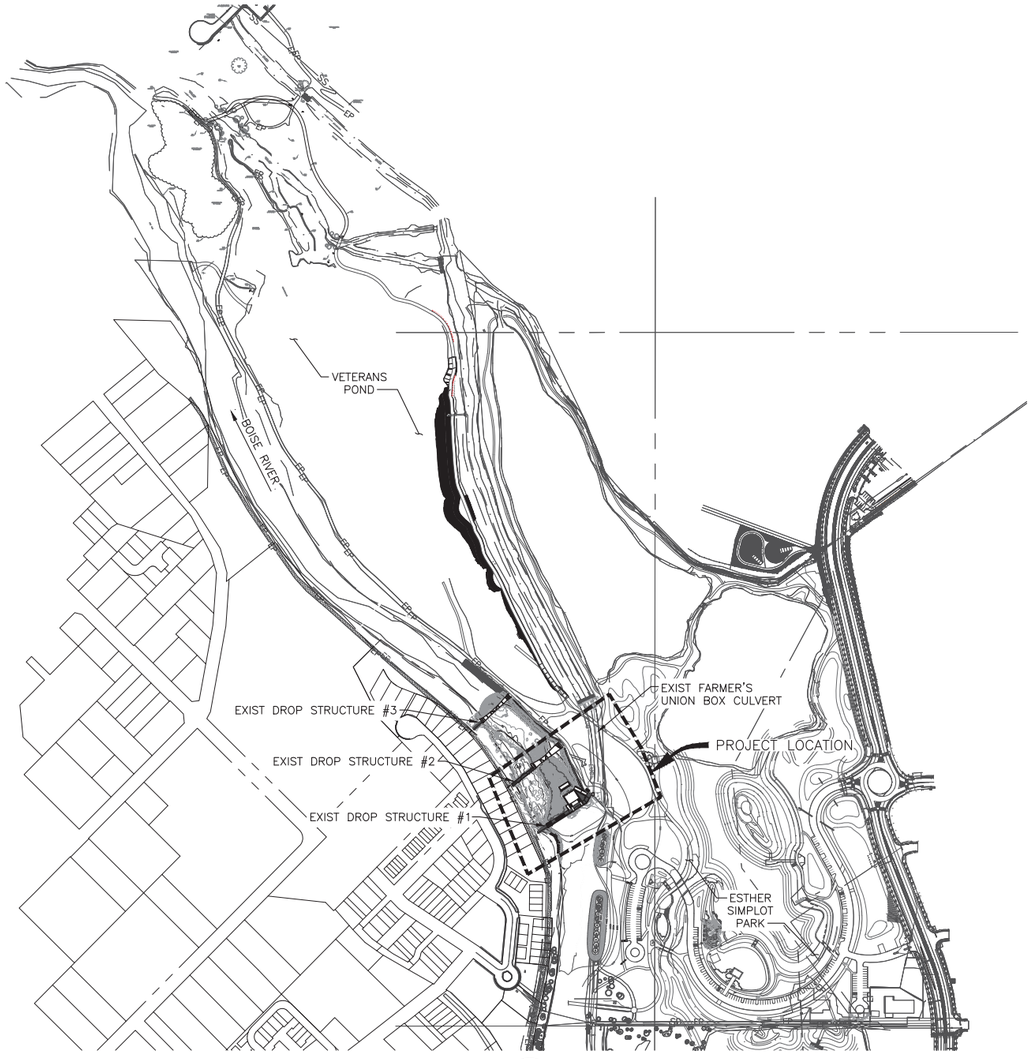
This application must be signed by the person who desires to undertake the proposed activity AND signed by a duly authorized agent (see Block 1, 2, 30). Further, 18 USC Section 1001 provides that: "*Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both*".

ATTACHMENT 2
DESIGN DRAWINGS

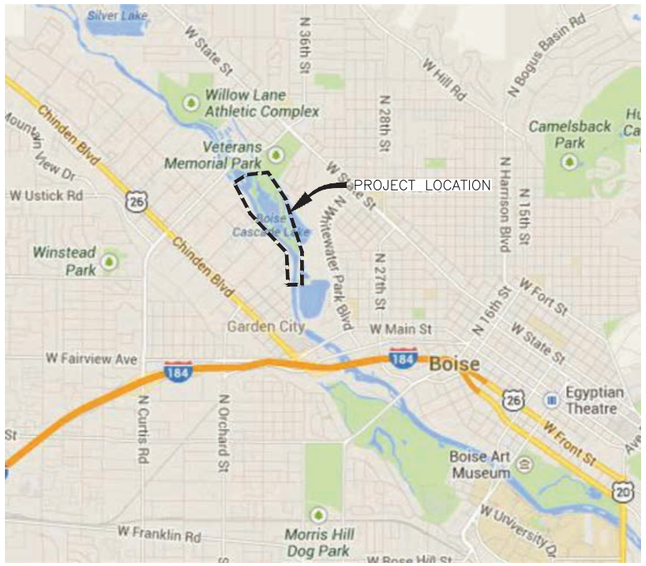
CITY OF BOISE
J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK
2023 WINTER SPILLWAY MODIFICATIONS



LOCATION MAP
NTS



PROJECT LIMITS
NTS



VICINITY MAP
NTS

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

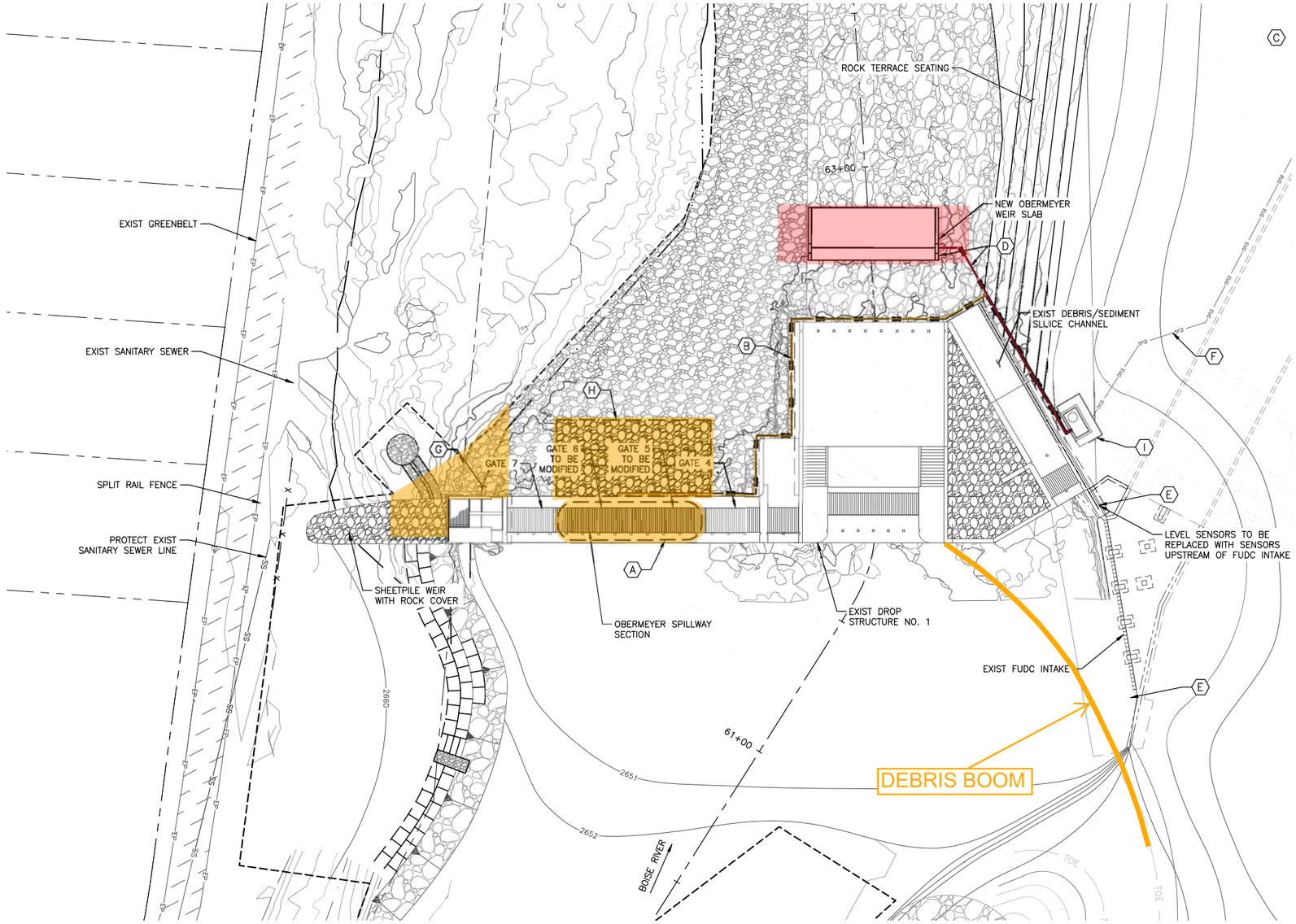
CITY OF BOISE
J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

LOCATION MAP, VICINITY MAP, AND PROJECT LIMITS

DESIGNED J. BOAG
DRAWN R. WOOD
CHECKED M. McMILLEN
ISSUED DATE 08/09/23

DRAWING
G001
SHEET 1 OF 19
SCALE: AS NOTED

JOB NO: 13-108
Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_C001.dwg Plot date: Aug 14, 2023 10:02pm



REACH 2 DROP STRUCTURE 1 DESIGN MODIFICATION PLAN

SCALE: 1"= 20'

0" 20' 40'

SHEET KEY NOTES:

- A REMOVE AND MODIFY GATES 5 AND 6 PER OBEMEYER DRAWINGS. MODIFICATIONS INCLUDE SPLITTING WEIR TO TWO (APPROXIMATELY EQUAL 10' SECTIONS) SECTIONS, ADDING SEAL LEAKS, SEAL FACING BARS, NEW SMALLER AIR BAGS, ADDING AN ADDITIONAL INCLINOMETER AND CABLE, REVISING RETAINING STRAPS. SEE OBERMEYER SHOP DRAWINGS FOR GATE MODIFICATION DETAILS.
- B ADD TWO NEW CONTROL ZONES FROM EQUIPMENT BUILDING AND ROUTE ALONG DOWNSTREAM EDGE OF STRUCTURES AS SHOWN ON MECH DRAWINGS. ENCASE LINES IN CONCRETE PER STRUCTURAL DRAWINGS.
- C CONFIGURATION OF AIR PIPING IN EQUIPMENT ROOM AS SHOWN ON MECH AND ELEC DRAWINGS. MCMILLEN TO MODIFY PLC PROGRAMMING FOR THE NEW GATE CONFIGURATION.
- D NEW 40' W X 4' TALL OBERMEYER WEIR TO BE ADDED TO STABILIZE EXISTING WAVESHAPER GATE TO BE ADDED WITH NEW SLAB, END WALLS, AIRLINE(S) AND CONDUIT AS REQUIRED BY OBERMEYER DRAWINGS.
- E ABANDON EXISTING EMBEDDED STILLING WELLS AND ADD NEW STILLING WELL UPSTREAM OF FUDC INTAKE. RUN CONDUIT ON UNDERSIDE OF EXISTING HANDRAIL, PAINT CONDUIT TO MATCH HANDRAIL.
- F ROUTE NEW AIR LINES AND CONDUIT ALONG EXISTING UTILITY ROUTING.
- G MITIGATE LEAKAGE BY INSTALLATION OF MEMBRANE ON LEFT BANK AS SHOWN ON CIVIL DRAWINGS.
- H ADD PLUNGE POOL DIRECTLY DOWNSTREAM OF MODIFIED SPILLWAY GATES PER CIVIL DRAWINGS.
- I REMOVE UNIT HEATER AND WIRING TO PURGE VALVES IN VAULT. REPLACE TERMINALS FOR INSTRUMENTATION WITH WATERPROOF HEAT SHRINK SPLICES.

Existing Structure Modifications In Boise River

New Structure In Boise River

New Structure or Modifications In Upland

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

REACH 2 DROP STRUCTURE 1
DESIGN MODIFICATION PLAN

DESIGNED J. BOAG

DRAWN R. WOOD

CHECKED M. McMILLEN

ISSUED DATE 08/09/23

DRAWING G005

SHEET 5 OF 19

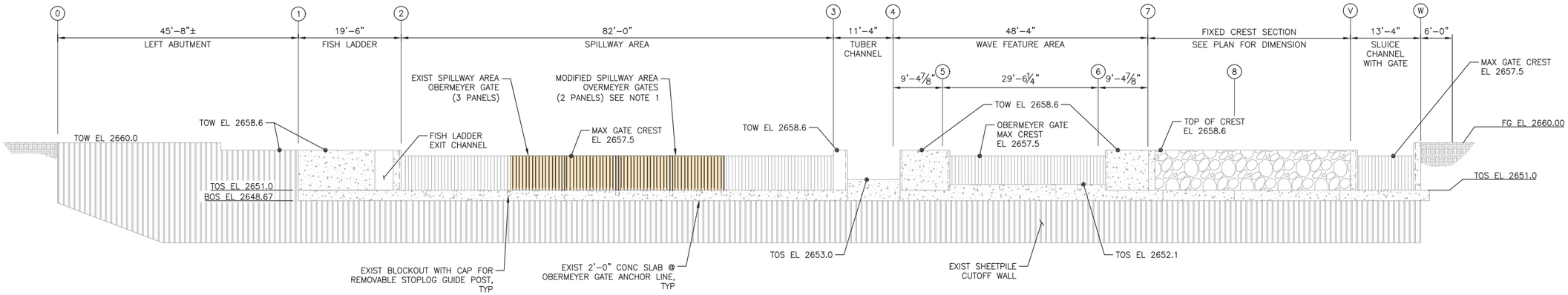
SCALE: AS NOTED

JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_G005.dwg Plot date: Aug 14, 2023 10:02pm

SHEET NOTES:

1. EXISTING GATE TO BE SPLIT INTO 2 GATES. LOCATION OF SPLIT, DESIGN OF GATES, AND ANCHORAGE REQUIREMENTS SHALL BE AS SPECIFIED BY GATE MANUFACTURER. ATTACHMENT TO CONCRETE SHALL BE AS SPECIFIED BY GATE MANUFACTURER AND THE DETAILS IN THESE DRAWINGS. NOTIFY ENGINEER OF ANY CHANGED CONDITIONS AND REQUIRED CONCRETE MODIFICATIONS NOT SHOWN IN THESE DRAWINGS.



REACH 2 – DROP STRUCTURE 1 SECTION

SCALE: 3/32"= 1'–0"

A S101

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

REACH 2 DROP STRUCTURE 1
SECTION

DESIGNED A. JABIR

DRAWN R. WOOD

CHECKED M. MERKLEIN

ISSUED DATE 08/09/23

DRAWING

S103

SHEET----OF 19

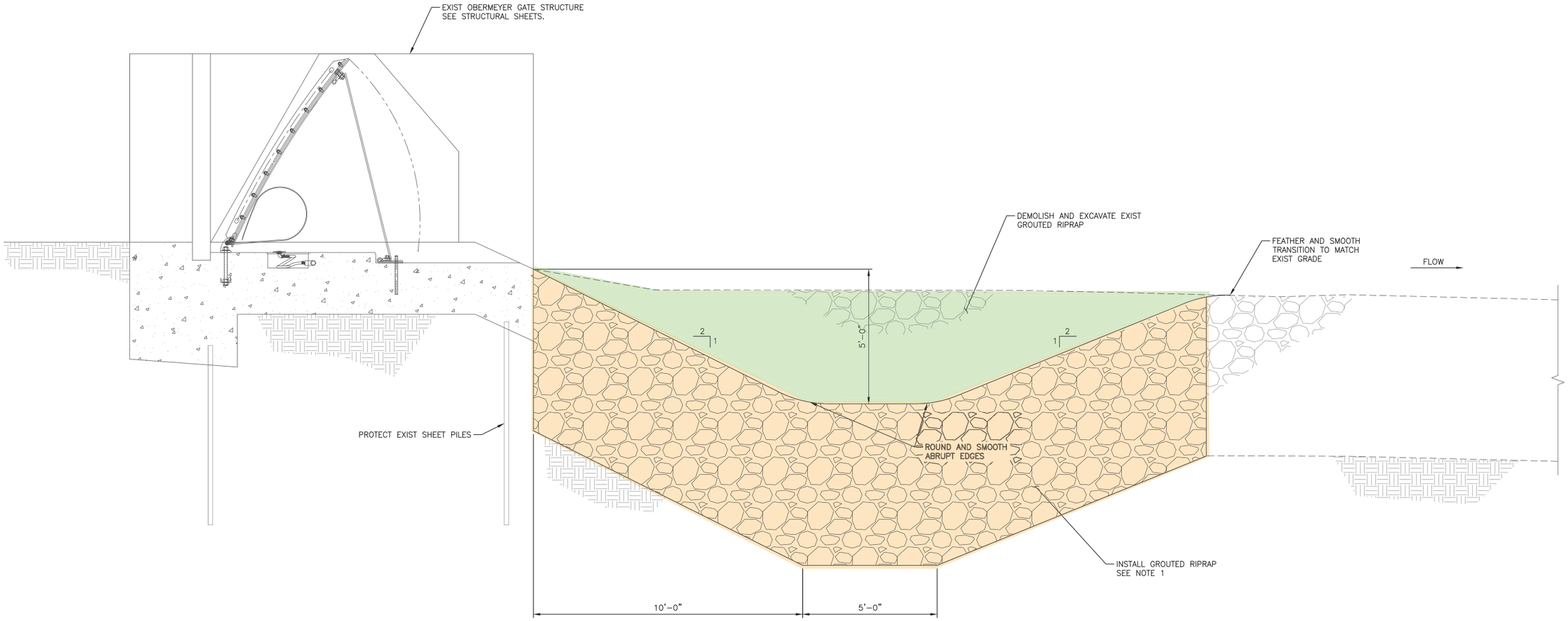
SCALE: AS NOTED

JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_S103.dwg Plot date: Aug 14, 2023 10:03pm

SHEET NOTES:

1. PLACE RIPRAP D50 = 3 FT AND GROUT TO MATCH EXIST. SEE SPECS FOR RIPRAP MATERIAL AND GROUTING METHOD. GROUTED RIPRAP SHALL BE GRINDED FOR A SMOOTH FINISH.



PLUNGE POOL SECTION

SCALE: 1/2"= 1'-0"

A C101

0' 2' 4'

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

PLUNGE POOL SECTION

DESIGNED K. VO

DRAWN R. WOOD

CHECKED M. McMILLEN

ISSUED DATE 08/09/23

DRAWING

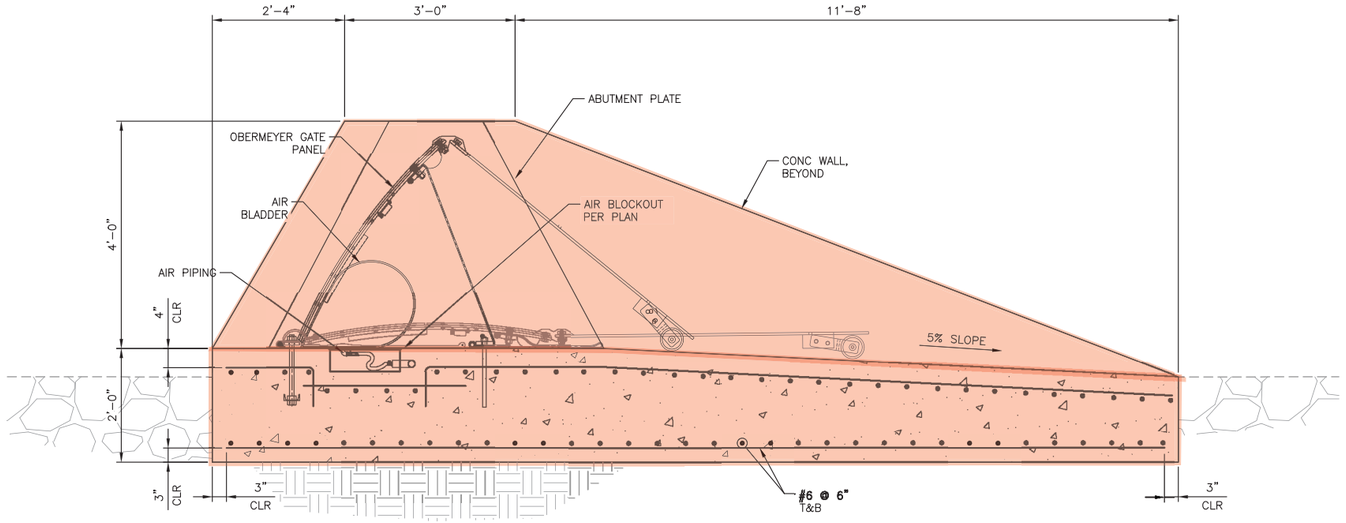
C102

SHEET----OF 19

SCALE: AS NOTED

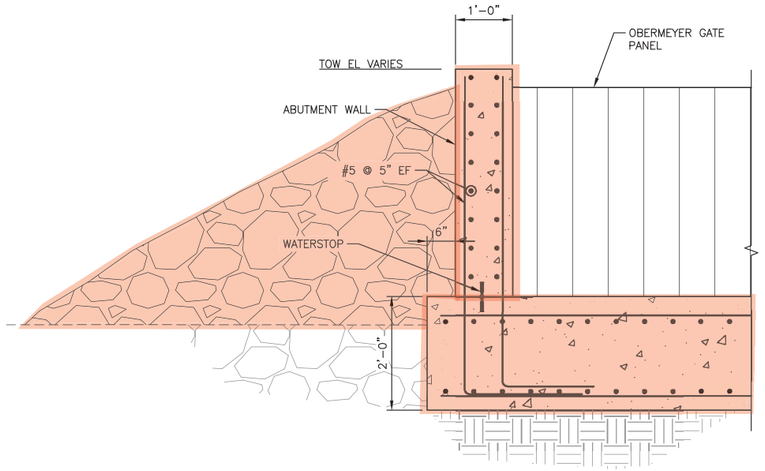
JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_C102.dwg Plot date: Aug 14, 2023 10:03pm



ADJUSTABLE WEIR SLAB FOUNDATION SECTION

SCALE: 3/4"= 1'–0"



ADJUSTABLE WEIR WALL SECTION

SCALE: 3/4"= 1'–0"

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

ADJUSTABLE WEIR SLAB FOUNDATION SECTION

DESIGNED B. BARRON

DRAWN R. WOOD

CHECKED M. MERKLEIN

ISSUED DATE 08/09/23

DRAWING

S108

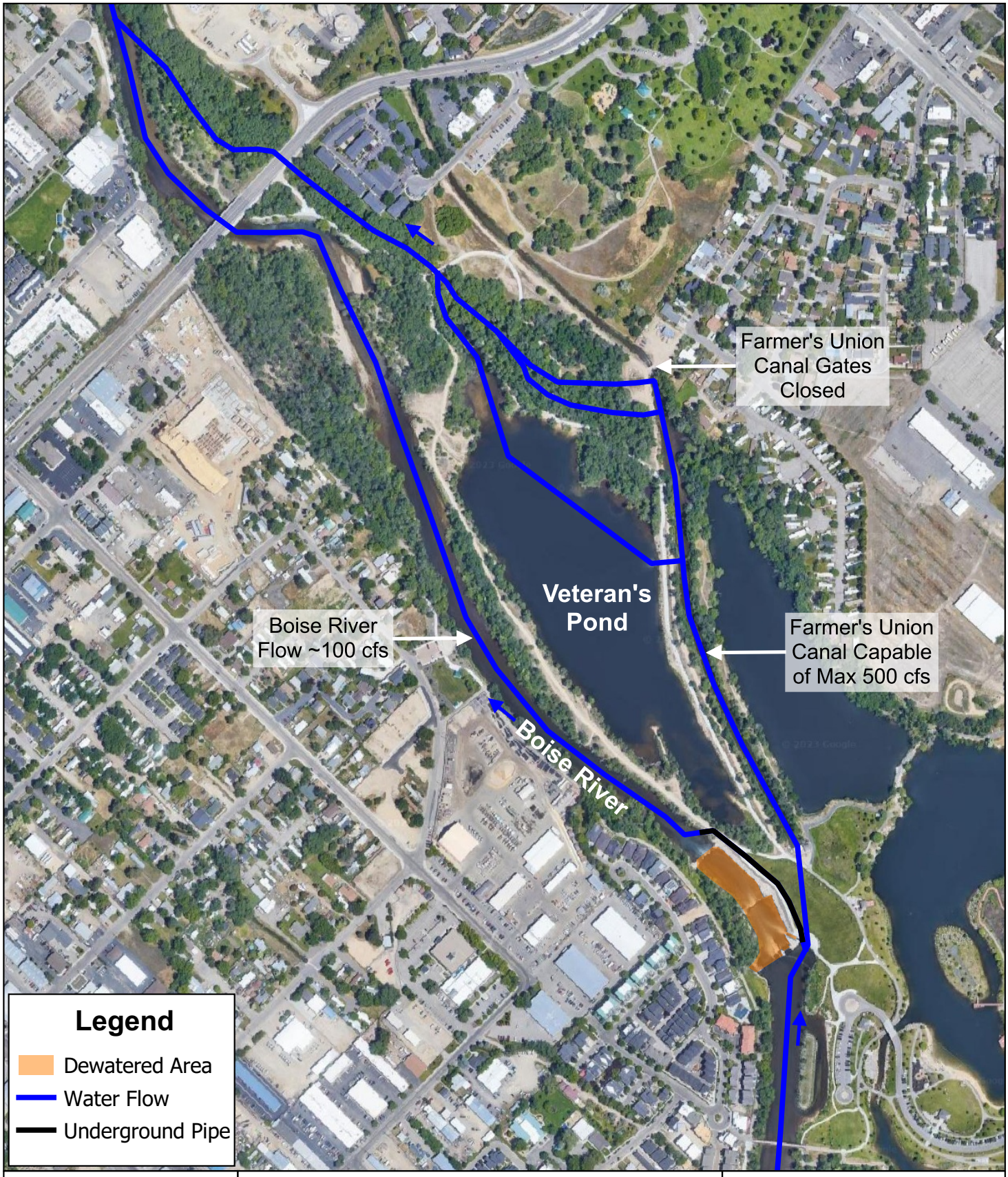
SHEET----OF 19

SCALE: AS NOTED

JOB NO: 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_S108.dwg Plot date: Aug 14, 2023 10:04pm

ATTACHMENT 3
TEMPORARY DEWATERING FIGURES



Adaptive Environmental Planning

Boise River Diversion Map

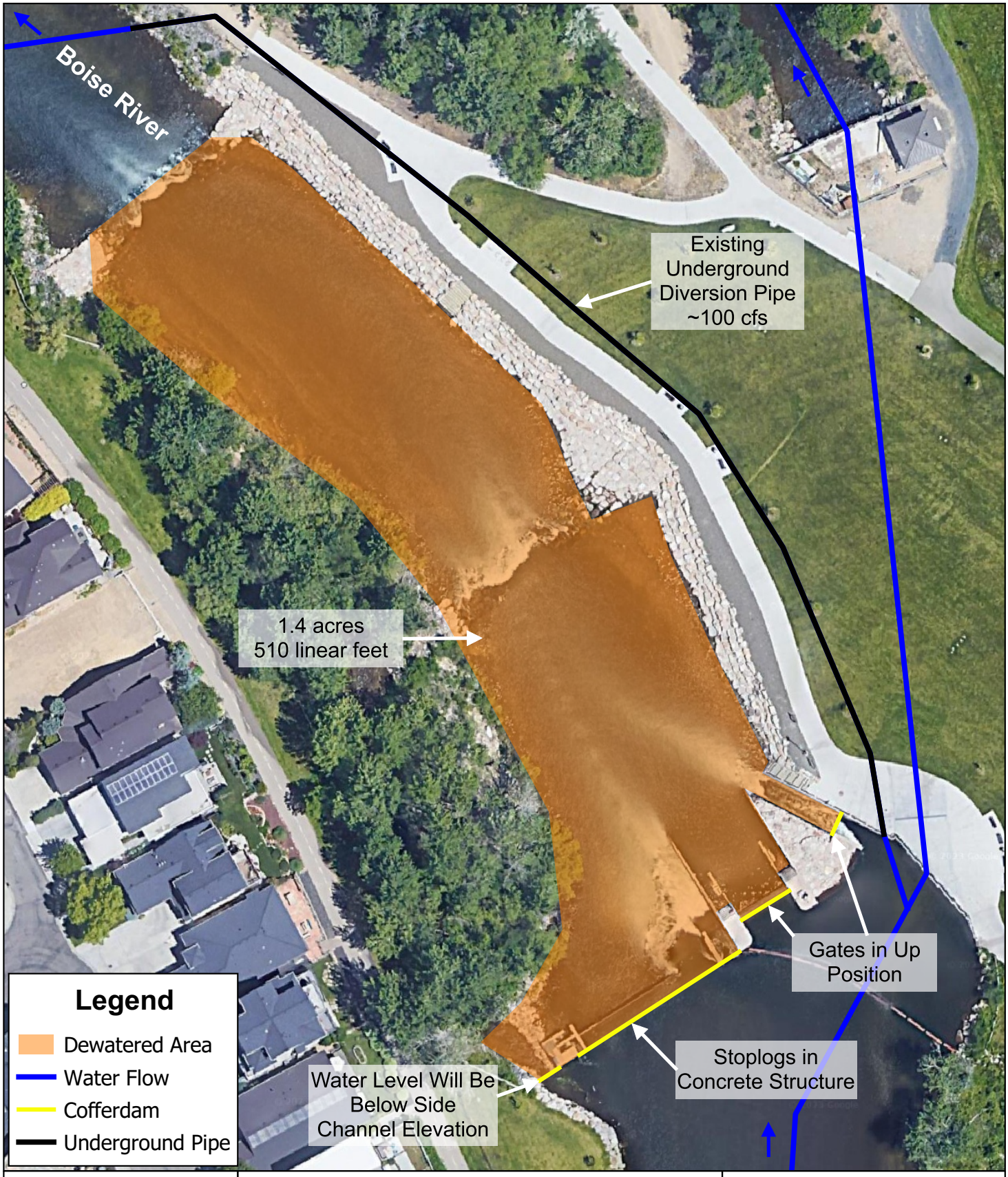
City of Boise Whitewwater Park Phase II Mods

Boise, Idaho (Ada County)

Joint Application for Permits

N

0 250 500 ft



Adaptive Environmental Planning

Boise River Dewatering Map

City of Boise Whitewwater Park Phase II Mods

Boise, Idaho (Ada County)

Joint Application for Permits

N

0 40 80 ft

ATTACHMENT 4
PHOTOGRAPHS

Photograph 1. Drop Structure 1 Gates 5 & 6 looking Downstream (October 2023).

Photograph 2. Drop Structure 1 Gates 5 & 6 and Plunge Pool Area looking Upstream (October 2023).

Photograph 3. Left Bank Side Channel Entrance and Fish Ladder looking Downstream (October 2023).

Photograph 4. Left Bank Side Channel Leakage Through Riprap and Grout (October 2023).

Photograph 5. Drop Structure 1 Wave Shaper looking Upstream (October 2023).

Photograph 6. Drop Structure 1 Sluiceway looking Upstream (October 2023).

Photograph 7. New Obermeyer Weir Location Downstream of Wave Shaper looking Downstream (October 2023).

Photograph 8. New Obermeyer Weir Location Downstream of Wave Shaper looking Upstream (October 2023).

Photograph 9. Temporary Diversion Pipe Inlet above Drop Structure 1 (October 2023).

Photograph 10. Temporary Diversion Pipe Outlet to Boise River below Drop Structure 3 (October 2023).

MEMO

TO: Cass Jones, Stream Channel Protection Program, Idaho Department of Water Resources

FROM: Sara Arkle, Parks Superintendent

CC: Mort McMillen, McMillen Corporation

Darrel Early, Deputy City Attorney, Boise City Attorney's Office

DATE: 12/15/2023

RE: Boise Whitewater Park Phase II Modifications – IDWR Response

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The following memo is submitted for your consideration during the processing of the Joint Application for Permits for modifications to the Boise Whitewater Park Phase II which was approved under permit #S63-20701. The information presented in this memo is intended to resolve questions raised during the meeting held on December 5, 2023 regarding future plans for downstream passage by recreational users of the river.

Background

In 2019, an in-river recreational feature was constructed associated with improvements to the Farmer's Union diversion adjacent to Esther Simplot Park. Unfortunately, the waveshaper recreational feature has not performed according to expectations and the City has not issued a certificate of completion for the structure. The City has been working with the engineering firm under contract to address operational challenges with the waveshaper and the team is ready to modify the structures to improve the function of the recreational feature and user experience. These modifications are necessary to create a consistent and reliable in-river wave feature and to address known hazards. In addition, the modifications must be completed during the winter non-irrigation season to ensure water delivery commitments are met to Farmer's Union Irrigation District.

Resolution of concerns regarding downstream passage for the upcoming 2024 floating season is dependent upon timely issuance of a stream channel alteration permit so that construction of the modifications can be completed the 2023-2024 winter non-irrigation season.

Actions Relating to Downstream Passage:

As discussed in the December informational meeting, during the 2020-2023 floating seasons, instability of the recreational wave feature at Drop Structure 1 (DS1) in the

Phase II section of the park required the City of Boise to close the wave feature except for monitored sessions.

During the 2023 floating season, recreational floaters seeking to pass DS1, were instructed by signage upstream of DS1 and information on the Boise City Parks and Recreation Department website to portage around DS1. This determination was made out of an abundance of caution and based on the observations of our wave technicians and the experience of users. In addition, throughout the 2020 and 2023 floating seasons, the tuber bypass channel was largely operational and could serve as an option for through floaters. There were times however, during monitored sessions, when low flows in the river required the tuber bypass to be closed to maintain wave shape and performance while still meeting irrigation demand in the Farmers Union Canal diversion. Thus, for the majority of the 2020-2023 floating seasons, recreational floaters had two options for passage of DS1.

A. The tuber bypass channel
B. Portage

Commercial recreational operators on the river were advised to use their judgment on which of these options to select.

To protect against possible injury or loss of life due to a potentially unstable wave, the DS1 wave feature was closed to all users other than during monitored sessions and the log boom was deployed in a manner different than originally permitted to discourage any downstream passage of recreational users of the river through the wave feature.

As discussed during the December 5, 2023 meeting, through the current Joint Application for Permits submittal, the engineering firm under contract is working with the City to resolve the wave stability issues with the DS1, wave feature. And, presuming the modifications to the wave feature perform as designed, it is the intention of the City to complete the construction and move the log boom back to its originally permitted position. There, it will serve its intended purpose to deflect debris away from the Farmer's Union Canal Diversion Trash Rack and leave an unobstructed pathway through the wave feature, in addition to the adjacent tuber bypass.

In other words, if the modifications are successful, recreational river users will have three options for downstream passage of the DS1 wave feature during the 2024 floating season and beyond.

A. The tuber bypass channel
B. Transiting through the wave feature
C. Portage

Utilization of these alternatives will be left to the judgment of the recreational user of the river as governed by U.S. Coast Guard Rules and proper boating etiquette.

Signage associated with the Boise Whitewater Park will be modified to conform to the new passage configuration and inform boaters approaching the whitewater park of their options.

Should issuance of the permit be delayed so that construction is not possible during the 2023/2024 winter season, or should the modifications proposed in the permit application do not adequately resolve safety concerns and monitored sessions are still required, the City will have little choice but to continue with the strategies deployed in the 2020-2023 seasons for safety reasons. In that case the City will seek emergency approval from IDWR pursuant to IDAPA 37.03.07.050 for the continued deployment of the log boom to discourage downstream passage through the wave feature while still allowing for downstream passage by either the tuber bypass or portage.

Technical Memorandum			
To:	Sara Arkle, City of Boise Jim Purdy, City of Boise	Project:	City of Boise Phase II Water Park – Drop Structure No. 1 Modifications
From:	Morton D. McMillen, P.E. McMillen Inc. 1471 Shoreline Dr STE 100 Boise, ID 83702	cc:	File
Prepared by:	Steven Klawitter	Job No.:	21-106
Date:	December 15, 2023		
Subject:	Drop Structure No. 1 - Hydraulic Analysis		

Revision Log

Revision No.	Date	Revision Description
0	September 27, 2023	75% Design
1	December 15, 2023	Revised based on City review

1.0 Introduction

This Technical Memorandum (TM) presents the results of hydraulic analyses related to proposed structure modifications for the new J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase II (Project).

1.1 Purpose

The purpose of this TM is to present results of hydraulic analyses based on the proposed scope of modification to the Project which includes enhancements of the main spillway, modifications to the existing waveshaper to improve tailwater control and hydraulic jump stability, modifications to the controls vault, relocation of stilling wells, and miscellaneous updates to project features that address current challenges associated with the operation of the Project. Most relevant to the hydraulic analyses are the enhancements of the main spillway and modifications to the existing waveshaper.

2.0 Summary of Proposed Modifications

The proposed modifications to the Project include the following elements which have direct impact on the hydraulic design and performance of the structure. These modifications were developed based on the operational challenges identified and summarized under the previous TM Drop 1 Structure Modifications Scope of Work dated June 6, 2023 (McMillen 2023).

2.1 Spillway Modifications

McMillen proposes to split the current 20-foot-wide Gate 5 and Gate 6 to create four 10-foot-wide gates. A sketch of this concept is shown in Figure 1. This will provide increased flexibility for operations of the main spillway and provide flexibility in a variety of flow management situations as well as the following benefits:

- The majority of low flow scenarios flow could be managed with only one or two 10-foot-wide spillway gates particularly when the waveshaper is not in operation.
- Boaters who miss the bypass channel could pass down the main channel and be passed through the Drop 1 spillway with high velocity.
- Ability to shape flow to the center of the river channel using four smaller gates by having one or two center gates (Gate 6 and Gate 7) down and Gate 5 or Gate 8 partially down.

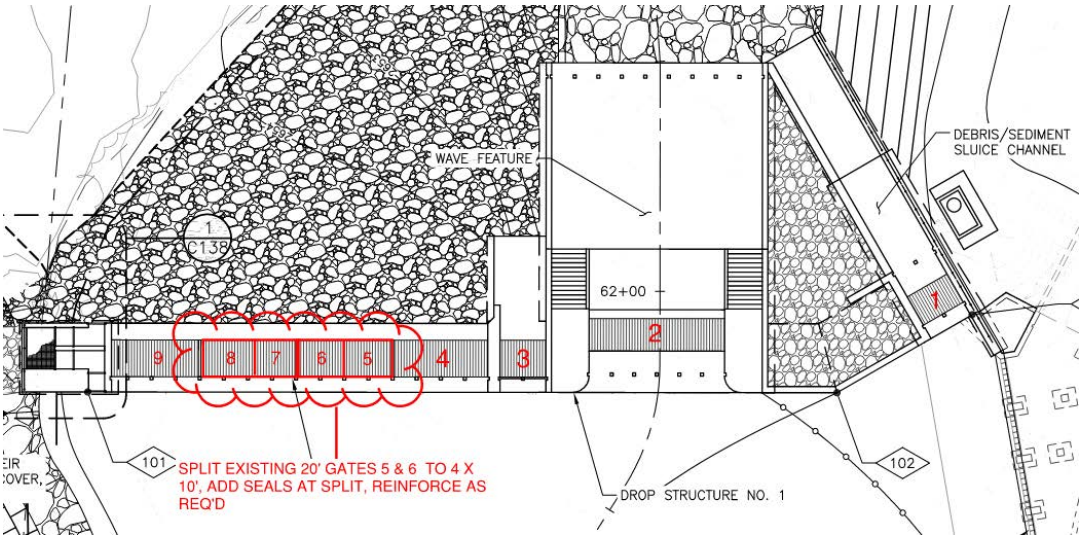

Figure 1 – Proposed Spillway Modifications

The work required to complete the modifications to this feature will include:

- Physical modification of the existing Obermeyer gates. McMillen has confirmed with Obermeyer that it is feasible and the best approach to modify the existing gates.
- Add new piping and electrical cable in the existing routing path from the control building to the new gates.

- Add additional inclinometers to the new gates to allow independent control of all gates.
- Add two gate control zones to the existing Obermeyer controls gates including new valving, piping and PLC programming.
- Dewatering of the drop structure to support construction.

In addition to the structural modifications of the spillway, a 5-feet-deep plunge pool will be excavated downstream of the new 10-feet-wide gates to provide better hydraulic conditions for rafters or tubers that may pass over the modified spillway gate section.

2.2 Waveshaper Modifications

Waveshaper modifications will be focused on downstream control and making the waveshaper less sensitive to changes in the overall river flowrate.

Through an alternatives analysis process, McMillen proposes constructing an adjustable “flip-lip” type feature on a new concrete slab downstream of the waveshaper gate for fine tuning of the tailwater. This feature would be adjustable from the riverbank without dewatering. This structure would consist of a new fully submerged Obermeyer gate downstream of the existing waveshaper structure. In the raised position, the gate would provide additional tailwater depth within the waveshaper feature to improve the operational range. During high river flows, the gate will be lowered to maximize the hydraulic capacity of the main river channel. The new gate would be 4-feet-high when fully raised and 40-feet-wide. The crest of the new Obermeyer gate when fully raised would be approximately 20 feet downstream of the end of the existing concrete waveshaper slab. Additional details related to the design of the new Obermeyer structure are provided under separate cover in the detailed design drawings.

3.0 Summary of Hydraulic Analyses

The following sections discuss the hydraulic analyses performed to assess the modifications proposed to the spillway and waveshaper gates. In general, the proposed modifications are intended to provide increased operational flexibility to adjust drop structure gate positions. Optimal gate positions for all gates should be selected during startup and testing after the modifications have been completed.

3.1 Spillway Gate Empirical Analysis

To assess the changes to the spillway hydraulics following the modification of the two central 20-feet-wide gates into four 10-feet-wide gates, McMillen performed an empirical analysis using a traditional weir equation. A critical assumption included in this analysis is the weir discharge coefficient. The weir coefficient selected for this analysis was based on a relationship of depth over the gate and discharge rate developed for the waveshaper gate. This relationship was estimated based on measurements manually collected at the site in 2019. The developed weir coefficients generally vary between 3.2 and 3.5 for the flow rates and depths evaluated. It is assumed that weir coefficient relationship developed for the waveshaper gate would be similar to that of the spillway gates. The rating curves developed for a 10-foot gate and 20-foot gate are shown in Figure 2.

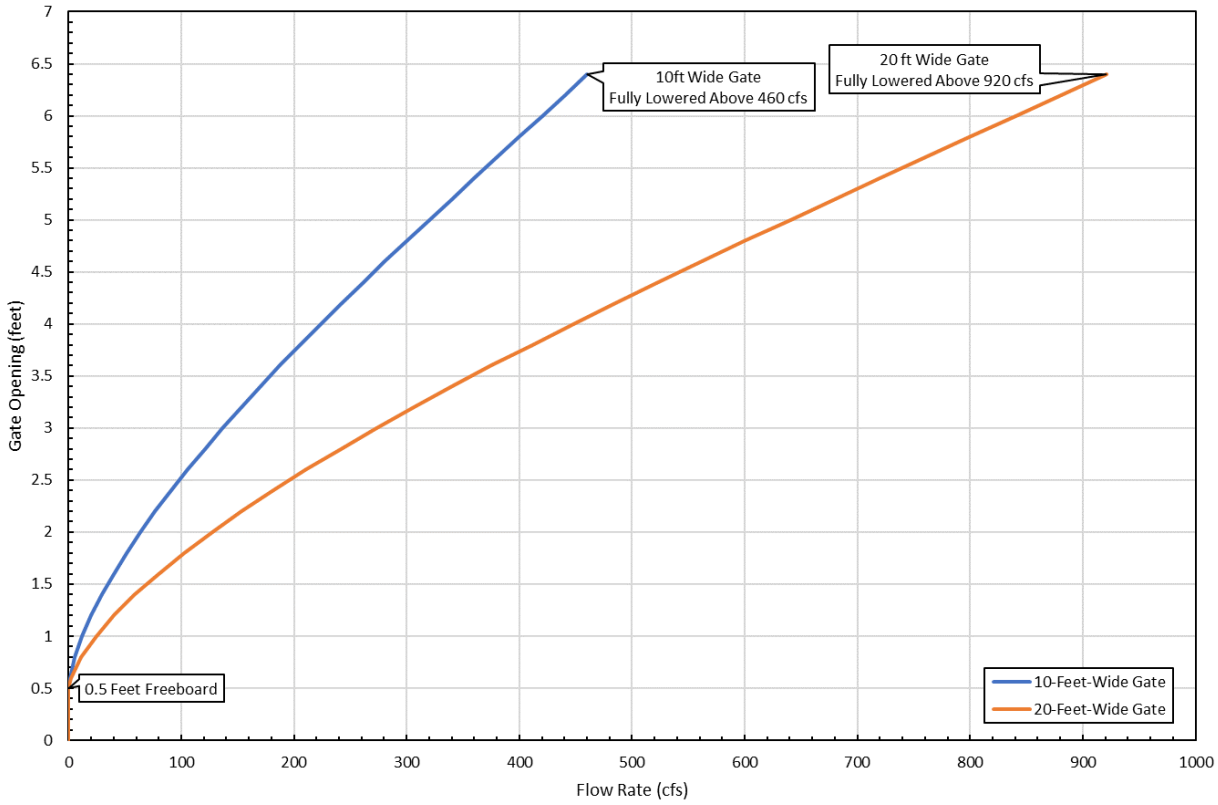

Figure 2 – Comparison of Rating Curves for Singular 10-feet-wide vs 20-feet-wide Gate

As can be seen in this figure, the capacity of a singular 10-feet-wide gate is half that of a 20-feet-wide gate. This leads to a capacity of approximately 460 cfs when a 10-feet-wide gate is fully opened as compared to 920 cfs for a 20-feet-wide gate. Based on these developed rating curves, a full operational curve for all of the spillway gates can be estimated as shown in Figure 3.

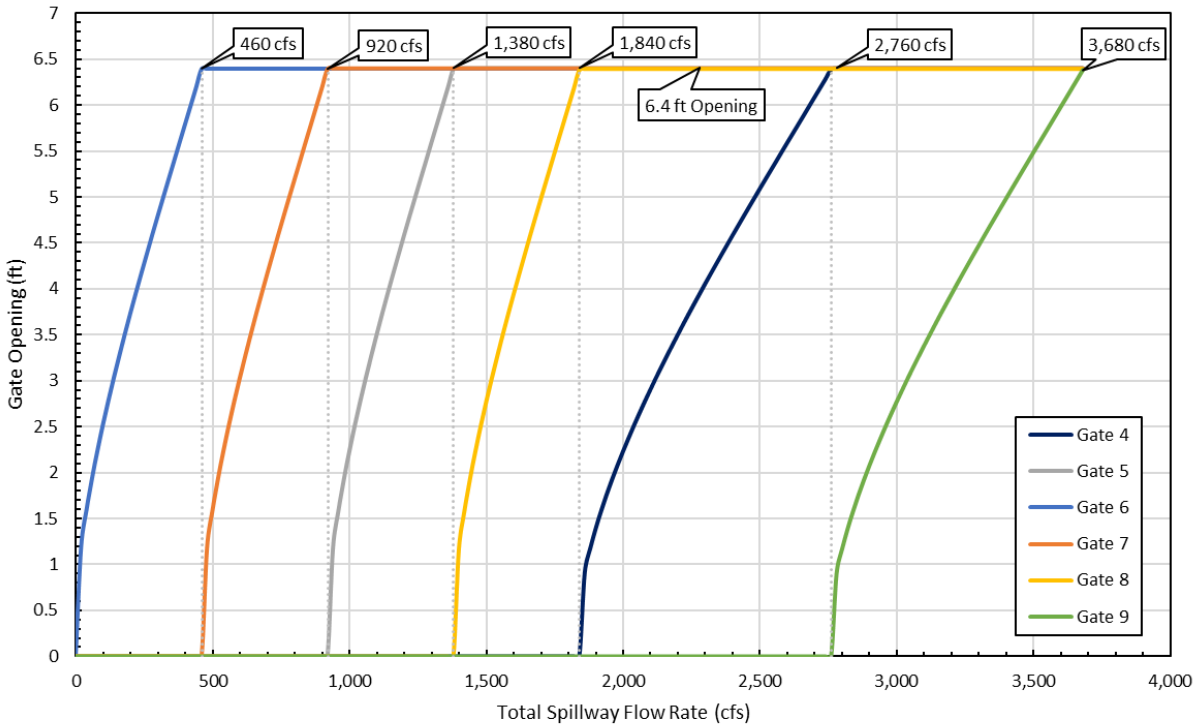

Figure 3 – Overall Spillway Operational Rating Curve

It can be seen in this figure that the modification of two of the 20-feet-wide gates into 10-feet-wide gates provides significantly more operational flexibility.

3.2 Hydraulic Model Setup

To further assess the hydraulics of the drop structure and the proposed modifications, McMillen used computational fluid dynamics (CFD) modeling. The use of a CFD model was instrumental in assessing the hydraulics of the structure due to the dynamic wave hydraulics and complex gate structures. CFD simulations were performed using FLOW3D software (version 22.2.0.17). The CFD model was developed to include a portion of the river upstream of the drop structure, the sluice, waveshaper, bypass gate, spillway, non-overflow sections, and a portion of the river downstream past drop structure 3. The model geometry at drop structure 1 for existing conditions is shown in Figure 4.

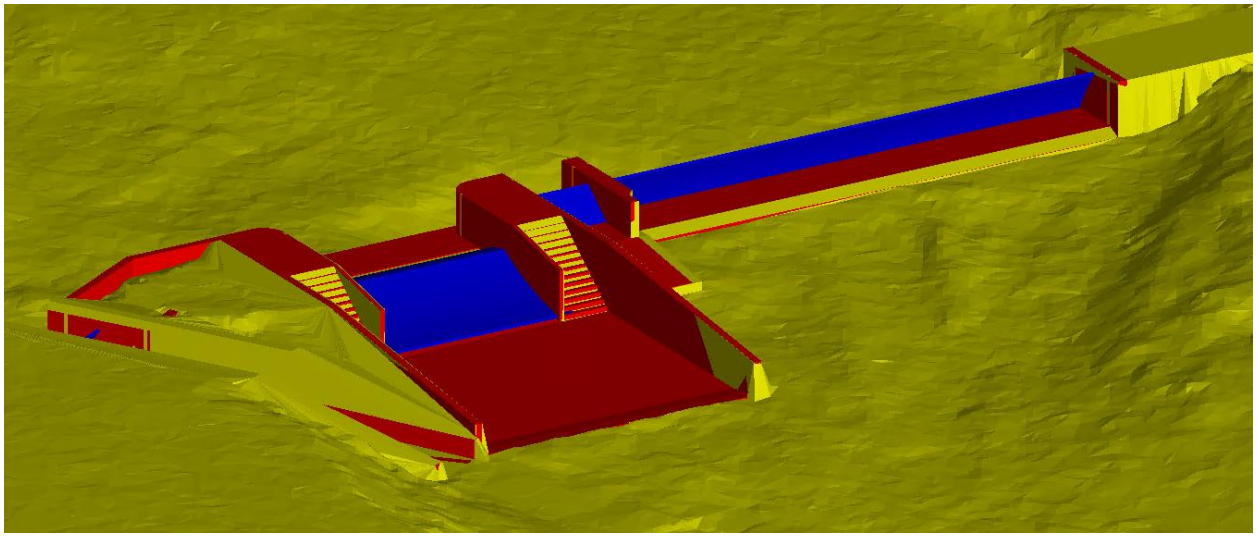

Figure 4 – CFD Model Geometry

Some additional modifications were made to the geometry to remove irregularities from the surveyed surface that did not appropriately represent the as-built conditions of the riverbed. The model domain extended from approximately 60 feet upstream of drop structure 1 to approximately 50 feet downstream of drop structure 3. These extents were selected to place the boundary conditions far enough away from drop structure 1 to not influence the results while also trying to maintain a small and computationally efficient model domain. The model domain was developed using mesh spacings from 0.25 to 1 foot. The smaller mesh spacings were used near the drop structure features to better capture the shallow flow depths as water passes over the gates. The model geometries and mesh were used to develop the mesh-generated Fractional Area Volume Obstacle Representation (FAVOR) geometry in the CFD model. The FAVOR method is used by FLOW3D to represent geometry by smoothly blocking out fractional portions of the grid cells filled with the solid geometry. A comparison of the original CAD geometry and the FAVOR generated geometry at the left side of the spillway approach is shown in Figure 5.

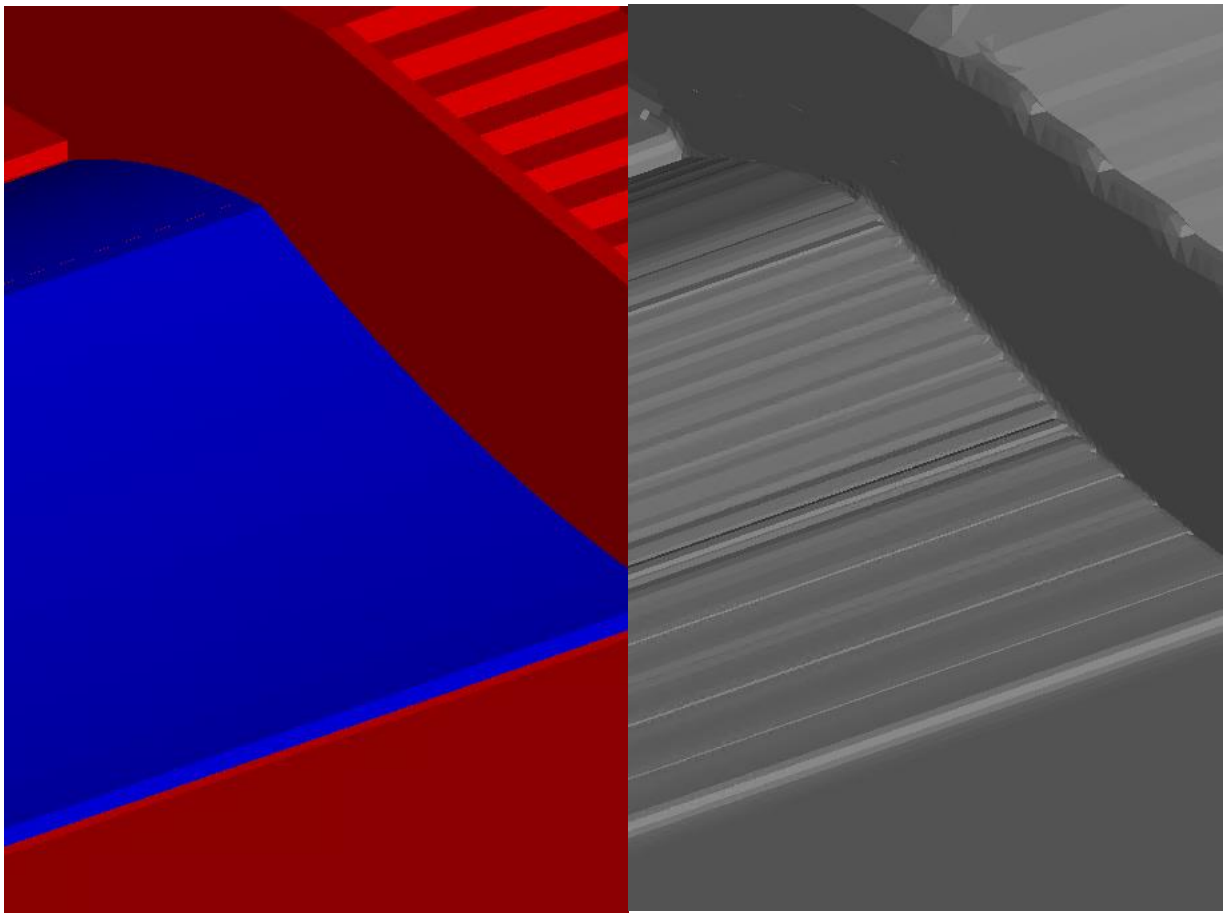

Figure 5 – Comparison of CAD and FAVOR Geometries

Within the FLOW3D model, parameters were selected to appropriately model the proposed waveshaper conditions. The FLOW3D model offers six different options for modeling turbulence. For this study, the k-ε Renormalization Group (RNG) model was used. Flow Science (the developers of FLOW3D) explains that this model is "known to describe low intensity turbulence flows and flows having strong shear regions more accurately". Additionally, the Immersed Boundary Method (IBM) option was selected. This option is beneficial for evaluating force predictions near walls. Downstream of the proposed Obermeyer structure the shallow water modeling option within FLOW3d was used. This allows the model domain to expand significantly but utilizes simplified depth-averaged calculations to improve computation efficiency where high resolution results are non-critical. The CFD model utilizes a variable timestep that is dynamically computed based on convergence criteria set within the program. This allows the timestep to vary depending on the flow regime within the model domain allowing for a stable run without sacrificing runtime.

At the downstream boundary condition a tailwater rating curve was used. This curve was based on measurements taken in 2019 downstream of drop structure 3. The measurements extended up to a flowrate of 6,560 cfs, above which the curve was linearly extrapolated. At smaller river flowrate of less than about 1,800 cfs the tailwater rating curve was modified to account for diversions through the FUDC bypass. At large flow rates there are significant impacts from

submergence at each drop structure and backwatering through the full river reach. The tailwater rating curve used for these analyses is shown in Figure 6.

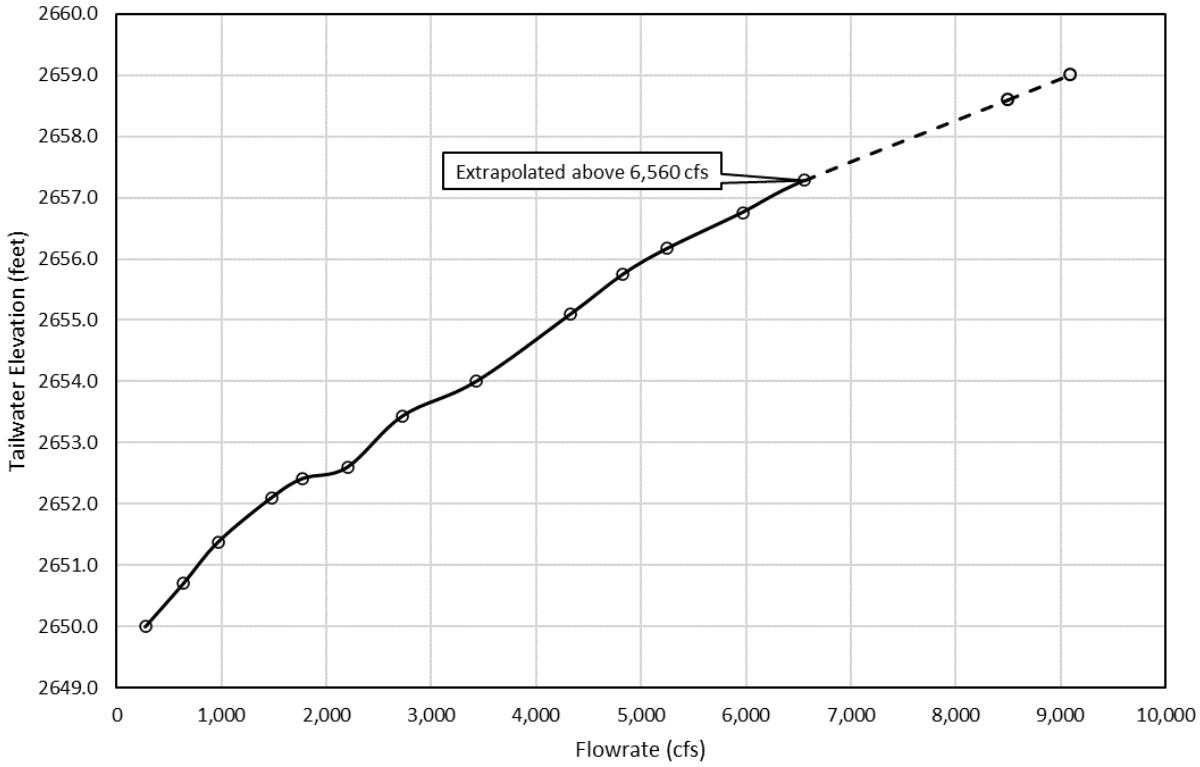

Figure 6 – Tailwater Rating Curve

3.3 Hydraulic Model Results

3.3.1 Waveshaper Gate

Within the FLOW3D model multiple hydraulic scenarios were prepared to evaluate the existing and proposed hydraulics of drop structure 1. These scenarios are summarized in Table 1.

Table 1 – Model Scenario Summary

Scenario No.	Configuration	Drop Structure Flow Rate[1] and Open Gates	Objectives
1	Existing Conditions	500 cfs @ Waveshaper and Bypass	• Confirm undesirable hydraulics at low flow rates • Establish baseline for comparison to proposed conditions
2	Existing Conditions	1,400 cfs @ Spillway, Waveshaper, and Bypass	• Establish baseline for comparison to proposed conditions at an intermediate flow rate
3	Existing Conditions	8,000 cfs @ All Gates, Bankfull	• Establish baseline for comparison to proposed conditions at a high flow rate
4	Proposed Conditions	500 cfs @ Waveshaper and Bypass	• Evaluate wave hydraulics at low end of operational range • Confirm improved hydraulic jump conditions
5	Proposed Conditions	1,400 cfs @ Spillway, Waveshaper, and Bypass	• Evaluate operations of new Obermeyer gate at an intermediate flow rate
6	Proposed Conditions	830 cfs @ Waveshaper and Bypass	• Evaluate wave hydraulics at upper end of operational range
7	Proposed Conditions	7,950 cfs @ All Gates, Bankfull	• Evaluate impacts on overall river water surface and flow regime at a high flow rate

1. Flow rates indicated are over drop structure 1 and do not account for potential diversions through the FUDC bypass or additional flows from Esther Simplot Park which includes Sand Creek.

Except for scenarios 3 and 7, all scenarios were performed with the forebay at El. 2657.0 which has previously been established as beyond the upper bound of the original waveshaper design[1]. Within these scenarios, gate openings were modified to match the targeted flowrates and a discharge of approximately 40 cfs is included at the bypass gate. For scenarios 3 and 7, the

[1] Previous design iterations by McLaughlin Whitewater included flows down to 300 cfs with a forebay of EL 2657.0 which is a challenging set of criteria for a wide gate for which the original waveshaper gate was not designed for. Per TM006 paragraph 2.3.2 the waveshaper design is designed for 700-1200 cfs. In practice the actual usable range with modification will likely allow for 500-1200 cfs over the waveshaper with a higher than original forebay of EL. 2657.0.

forebay elevation model boundary condition was held at the bankfull capacity (approximately El. 2660.0) with all gates fully lowered and the resulting river flow rates were measured.

3.3.1.1 Scenario 1 – Existing Conditions 500 cfs at Waveshaper

Through discussions with the City, it was established that the waveshaper does not produce desirable hydraulic conditions at low flows. This was exhibited by the CFD model which showed similarly unstable wave operations at low flows. The depth-averaged velocity regime for this scenario is shown in Figure 7.

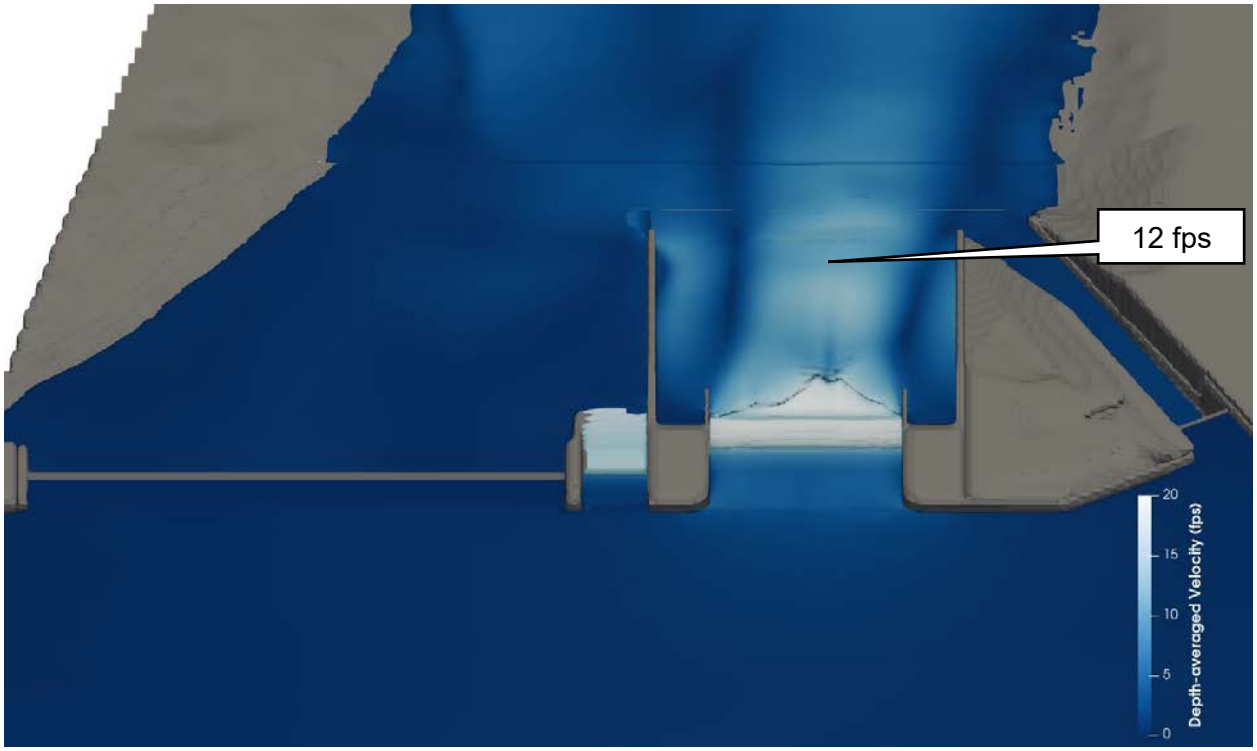

Figure 7 – Depth Averaged Velocities for Scenario 1 (Existing Conditions, 500 cfs)

As can be seen in this figure, a hydraulic jump is not well formed over the toe of the waveshaper gate. This agrees with general observations at the structure. Further, it can be seen that the majority of flows pass uniformly downstream towards drop structure 2 after exiting the waveshaper structure. This is expected as the existing conditions generally have no obstructions in the channel immediately downstream of the waveshaper.

3.3.1.2 Scenario 2 – Existing Conditions 1,400 cfs at Waveshaper and Spillway

Under existing operations for drop structure 1, flows beyond the capacity of the waveshaper gate and bypass channel are passed through the spillway gates starting from the right (looking downstream, Gate 4). McMillen evaluated a scenario where flows are passed through the waveshaper gate, bypass channel, and spillway. In this scenario, the crest of Gate 4 was lowered to El. 2651.85. which is approximately 5.15 feet below the forebay elevation which resulted in a flow rate of approximately 750 cfs through the spillway. Additionally, the

waveshaper gate crest was lowered to El. 2653.2. The hydraulic capacity estimated by the CFD model for both the waveshaper and existing spillway gates is consistent with analyses performed during the initial drop structure design. An isometric of the depth-averaged velocities for scenario 2 is presented in Figure 8.

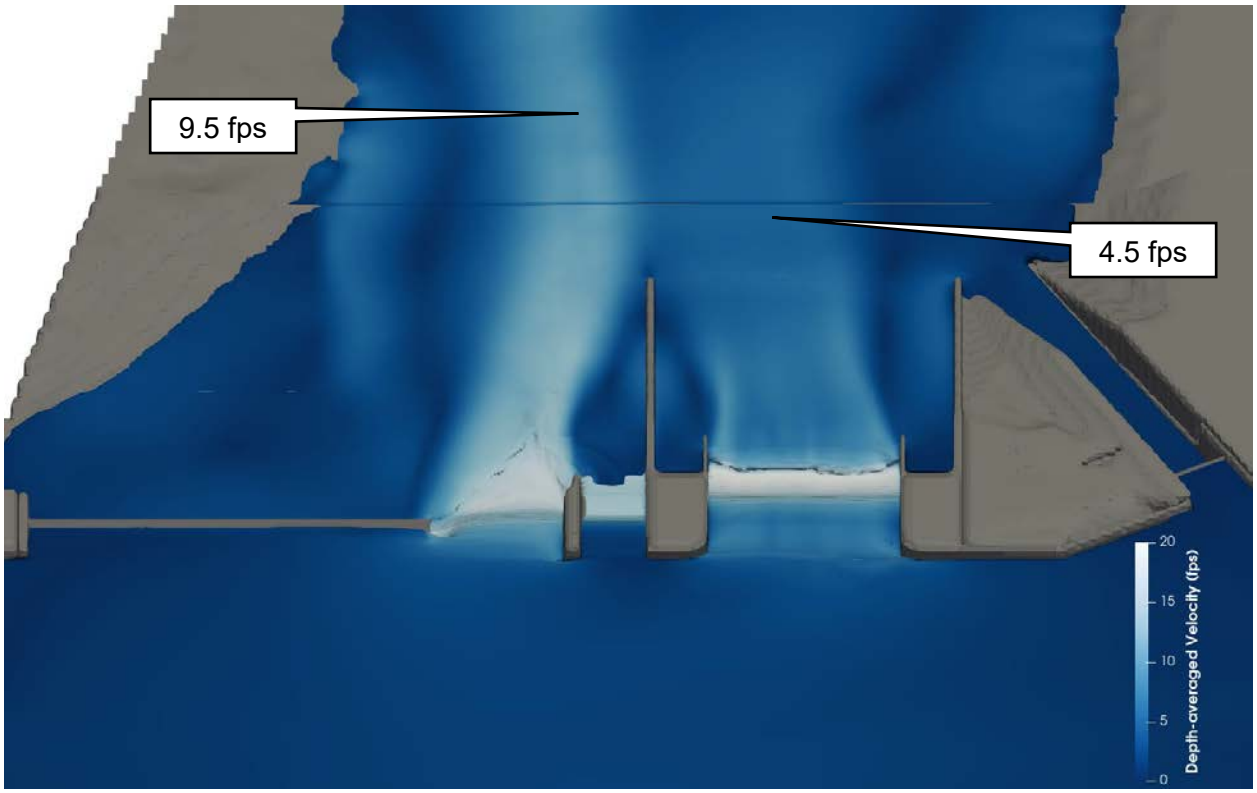

Figure 8 – Depth Averaged Velocities for Scenario 2 (Existing Conditions, 1,400 cfs)

As can be seen in this figure, the velocities downstream of Gate 4 are higher than at the waveshaper as a similar amount of flow to the waveshaper is passed through a narrower gate opening (20 ft vs 30 ft). At the waveshaper, a jump does form but exhibits some instability at the edges near the training walls.

3.3.1.3 Scenario 3 – Existing Conditions Bankfull Capacity

In the bankfull capacity scenario, all gates are fully lowered to pass their maximum capacity. Under existing conditions this bankfull capacity is estimated to be approximately 8,000 cfs. This capacity is significantly impacted by backwatering from the downstream structures and riverine hydraulics. This flowrate represents approximately 48% of the 100-year discharge (16,600 cfs). An isometric of the depth averaged velocities at drop structure 1 under a bankfull flow scenario is presented in Figure 9.

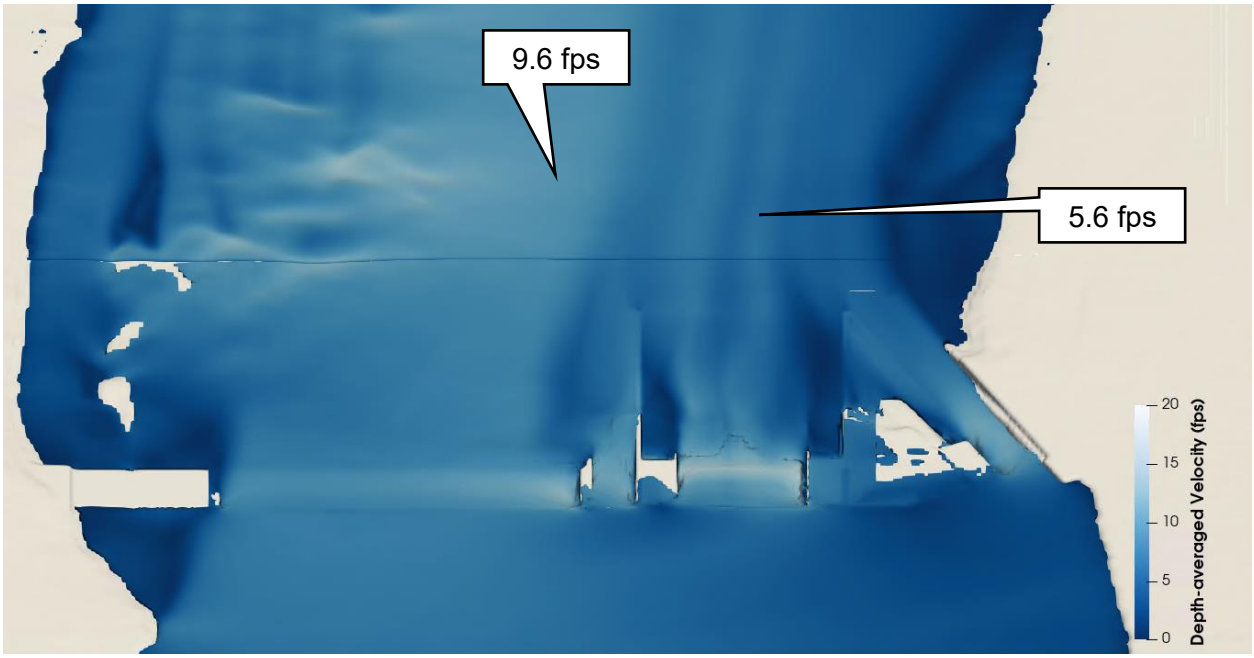

Figure 9 – Depth Averaged Velocities for Scenario 3 (Existing Conditions, Bankfull Capacity)

As can be seen in this figure there is significant overtopping of the portions of the drop structure between gates 1 and 2 (sluice and waveshaper). Velocities at the left side of the river downstream of the spillway are slightly higher than those at the right. This is similar to scenario 2 where more significant flows are passed through the spillway than the other gates. A submerged jump develops at the waveshaper gate but is well beyond the surfable range the structure is designed for.

This scenario was also developed to evaluate water surface elevations downstream of drop structure 1. A plan view of the water surface elevations in the reach between drop structure 1 and 2 is shown in Figure 10.

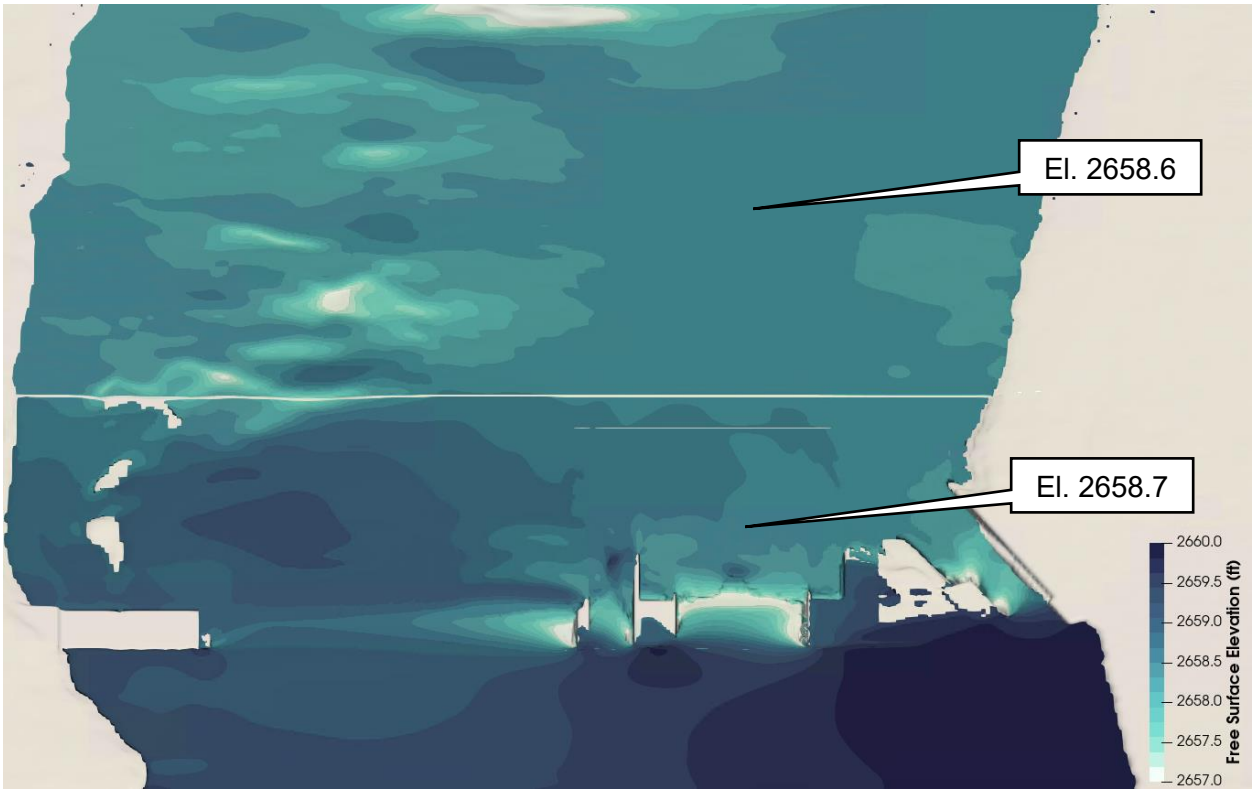

Figure 10 – Water Surface Elevations for Scenario 3 (Existing Conditions, Bankfull Capacity)

As can be seen in this figure the water surface elevations in this area are variable but within the main channel generally range from approximately El. 2658.7 to El. 2658.6. Some instability in the water surface elevations occurs at the left bank where flows would overtop the small island and enter the relatively undeveloped side channel.

3.3.1.4 Scenario 4 – Proposed Conditions 500 cfs at Waveshaper

Under proposed conditions at drop structure 1 the new Obermeyer gate downstream of the waveshaper would be fully raised during low flow conditions of 500 cfs represented by scenario 4. An isometric of the depth-averaged velocities at the waveshaper gate, bypass channel, and new Obermeyer is shown in Figure 11.

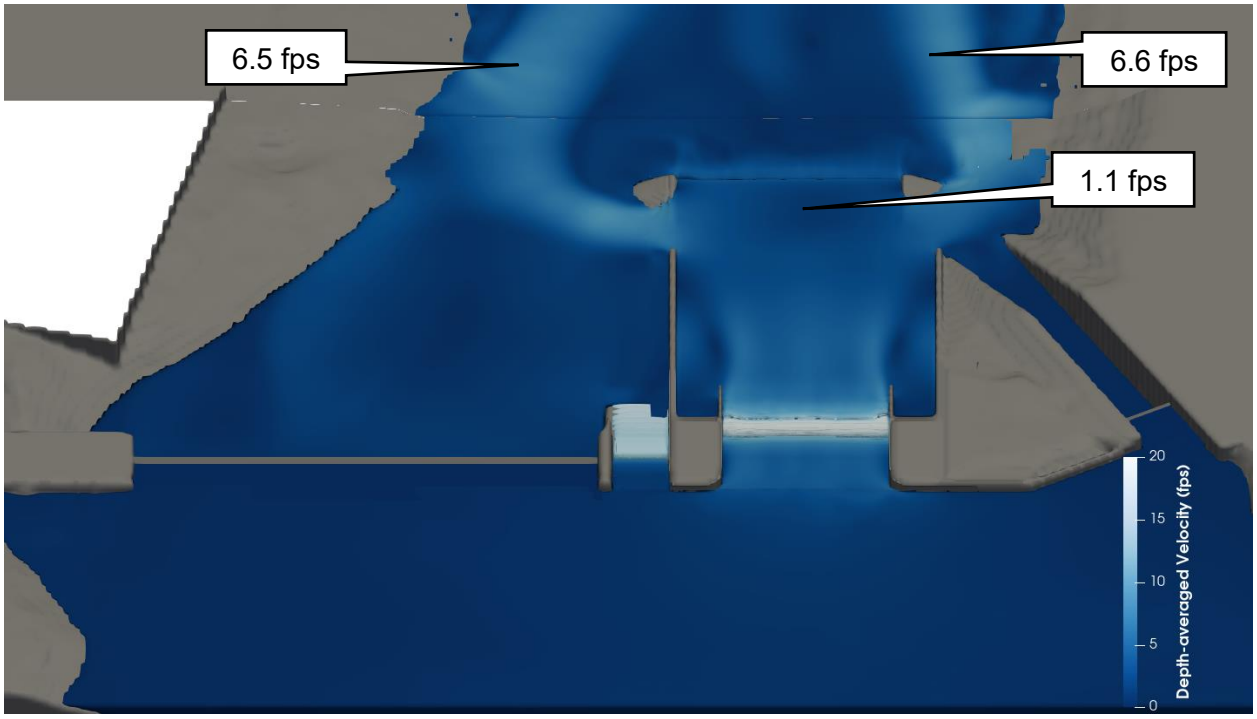

Figure 11 – Depth Averaged Velocities for Scenario 4 (Proposed Conditions, 500 cfs)

As can be seen in this figure, the CFD model indicates that the new Obermeyer is effective at producing a stable tailwater and hydraulic jump on the waveshaper gate. Velocities approaching the raised gate are approximately 1 fps and flow depths decrease to less than 6 inches over the crest of the new Obermeyer gate. The majority of flows are passed laterally towards the left and right banks around the Obermeyer structure. This can be seen in Figure 12 which shows the same depth-averaged velocities with flowpath streamlines overlaid. The streamlines exhibit how flows would split and pass over both the waveshaper and bypass gates.

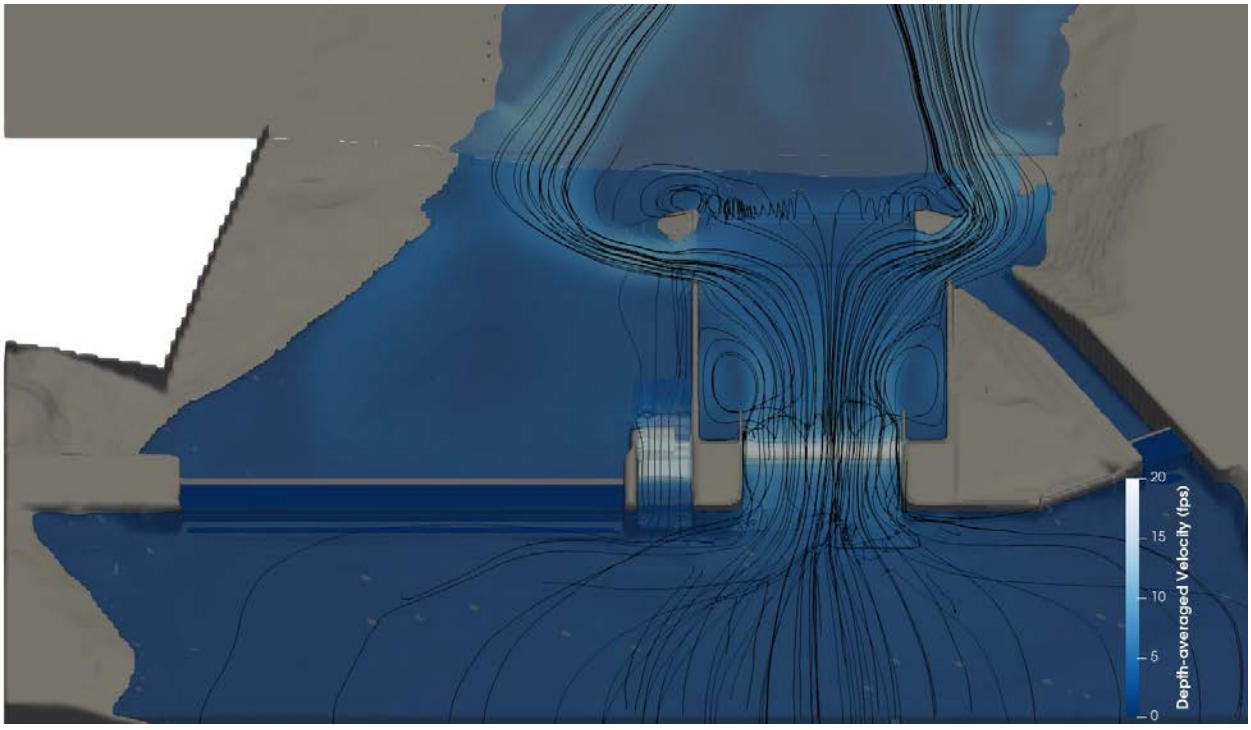

Figure 12 – Flowpath Streamlines for Scenario 4 (Proposed Conditions, 500 cfs)

The results shown in this figure also indicate that a small roller would form downstream of the new Obermeyer gate. However, this does not significantly draw from the flows that pass around the ends of the structure which represent the majority of the flows passing downstream. Detailed isometric views of the depth-averaged velocities and depths near the proposed Obermeyer structure are shown in Figure 13.

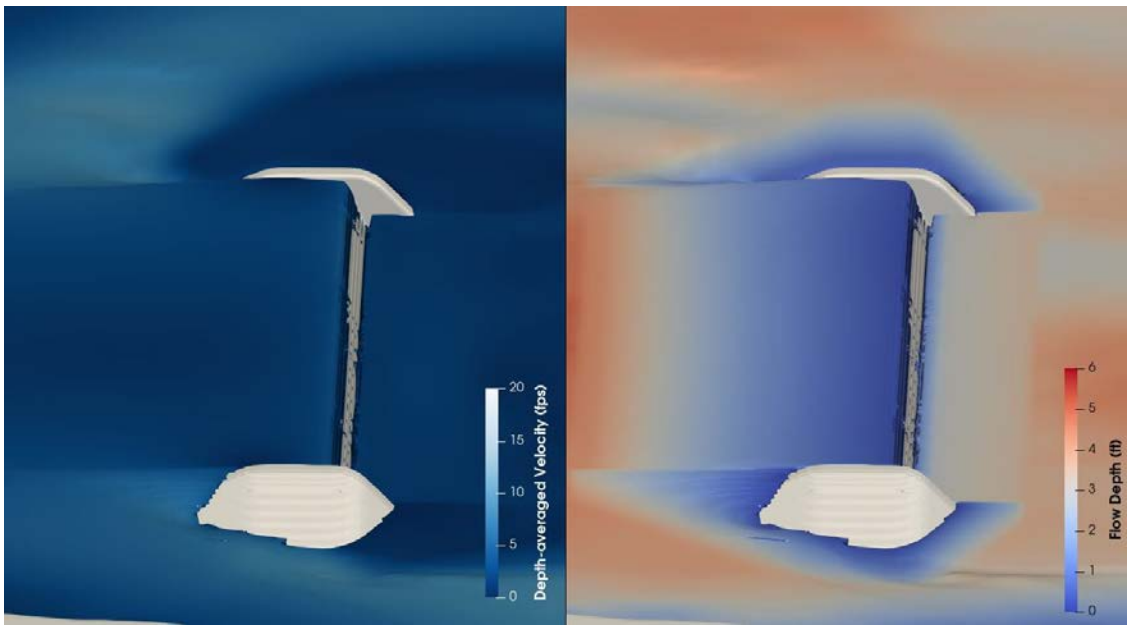

Figure 13 – Isometric Views of Proposed Obermeyer Structure (500 cfs)

3.3.1.5 Scenario 5 – Proposed Conditions 1,400 cfs at Waveshaper and Spillway

McMillen evaluated a scenario where flows are passed through the waveshaper gate, bypass channel, and spillway. In this scenario the new spillway gate numbers 6 and 7 could be lowered to pass approximately 750 cfs downstream. Similar to scenario 2, the waveshaper gate crest would be lowered to El. 2653.2 to pass approximately 650 cfs. The new Obermeyer gate was assumed to be in a fully raised position for this model scenario. An isometric view of the depth-averaged velocities at drop structure 1 for this scenario is shown in Figure 14.

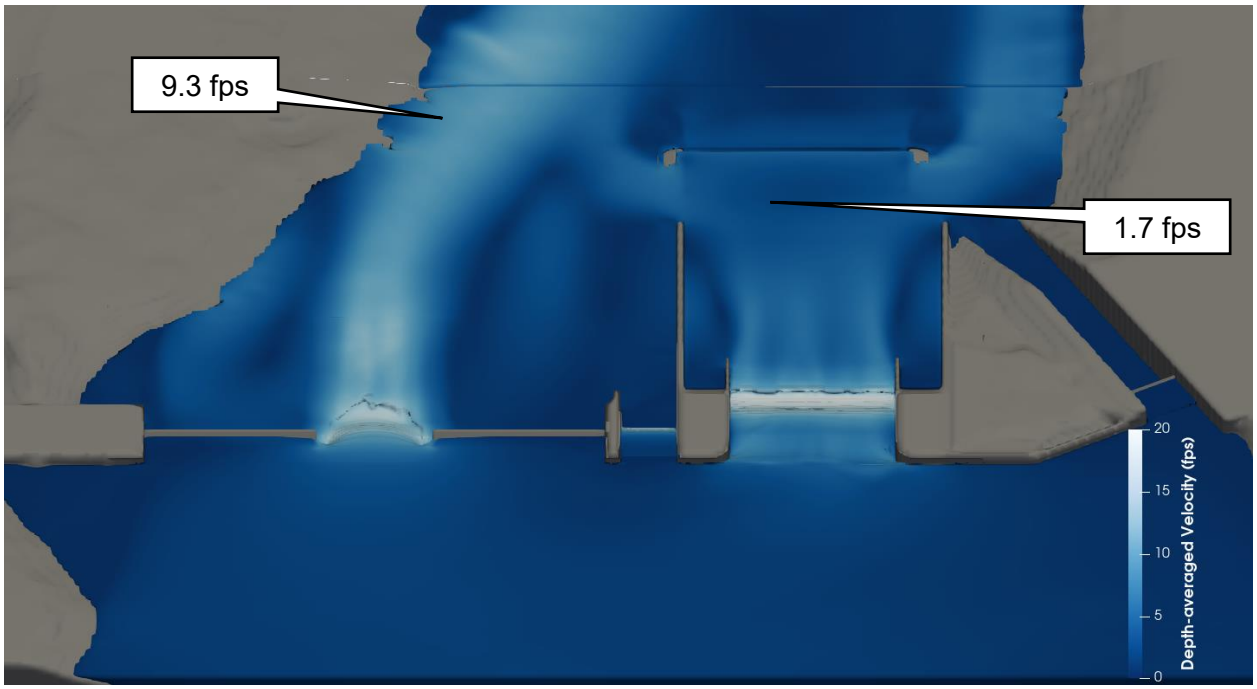

Figure 14 – Depth Averaged Velocities for Scenario 5 (Proposed Conditions, 1,400 cfs)

As can be seen in this figure, the flow regimes downstream of drop structure 1 are relatively similar to that of scenario 2. The most significant difference is that the spillway flows are shifted from the right end of the spillway structure to be more centrally located within the spillway. This leads to a reduction in mixing between flows from the waveshaper and the spillway portions. However, flows passing the new Obermeyer are still directed laterally around the new structure towards the left and right banks. A well developed jump forms at the waveshaper under these flow conditions. Velocities approaching the Obermeyer are approximately 1.7 fps, which is slightly higher than those of scenario 4. A similar flowpath streamline analysis was developed for this scenario and is shown in Figure 15.

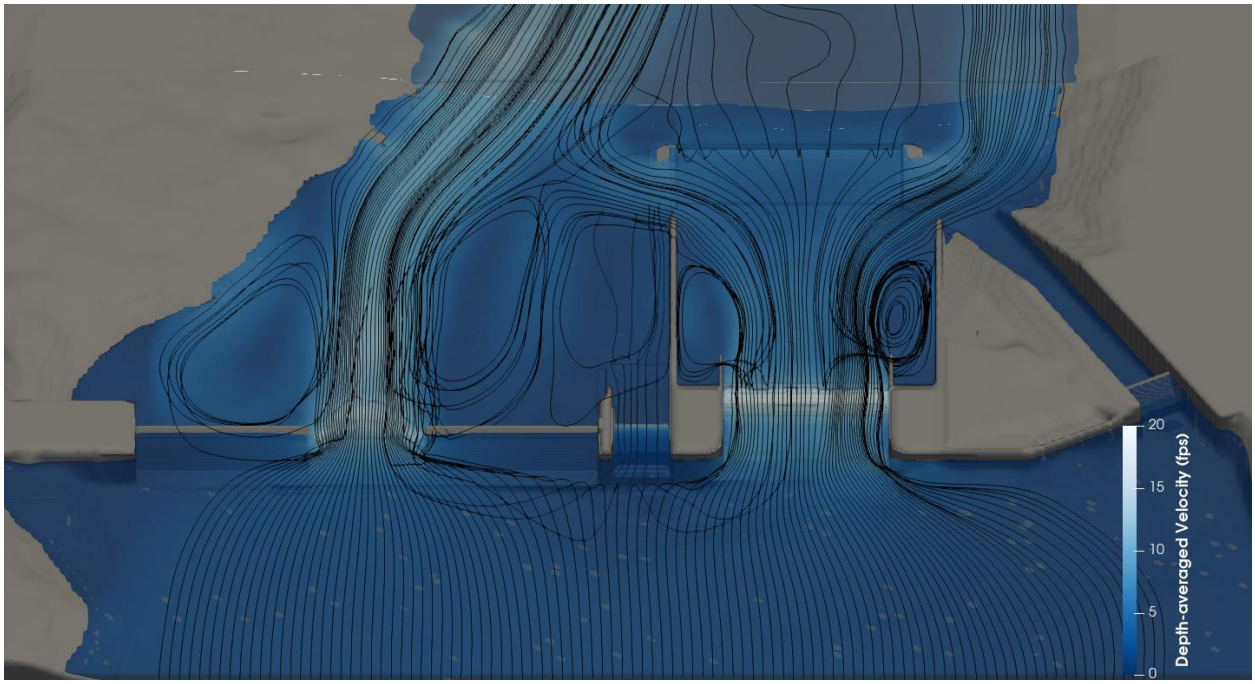

Figure 15 – Flowpath Streamlines for Scenario 5 (Proposed Conditions, 1,400 cfs)

Similar to the streamlines shown in Figure 12 for scenario 4, a small roller forms downstream of the new Obermeyer gate. However, this is largely limited to flows passing directly over the new gate structure. These flows passing over the new gate represent a larger portion of the flows than in scenario 4, however, they are still considerably less than the flows which pass around the structure abutments. To further evaluate the ability of the new Obermeyer gate to regulate tailwater elevations downstream of the waveshaper gate a cross section through the flow in this area is shown in Figure 16.

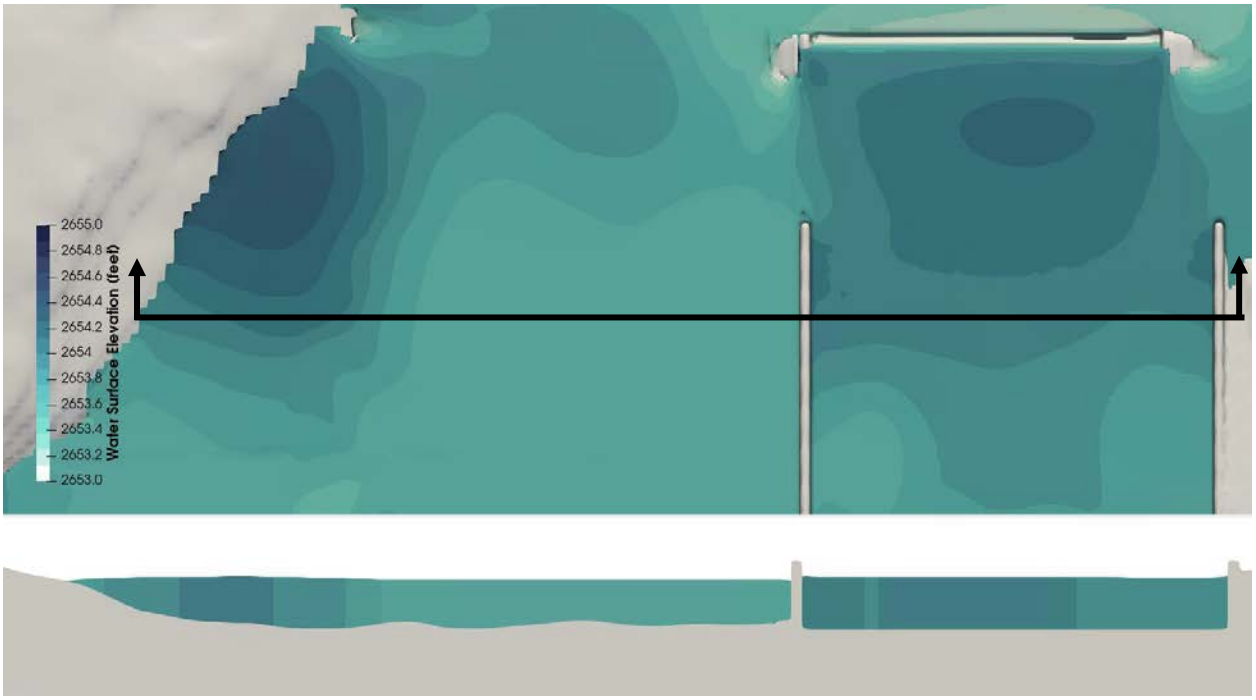

Figure 16 – Cross Section of Results of Scenario 5 (Proposed Conditions, 1,400 cfs)

As can be seen in this figure the new Obermeyer gate increases the tailwater elevation downstream of the waveshaper gate by approximately 0.5 feet when compared to the tailwater elevations downstream of the spillway. Additional increases in the tailwater elevation differential are observed when comparing points directly in front of the new Obermeyer to points downstream of the spillway gates.

3.3.1.6 Scenario 6 – Proposed Conditions 830 cfs at Waveshaper

McMillen evaluated a scenario where the waveshaper gate crest is fully lowered (El. 2652.1) and flows are passed only through the waveshaper gate and bypass channel. The resulting flow rate at the waveshaper in this scenario is approximately 830 cfs. With the waveshaper gate fully lowered the crest loses some discharge efficiency and begins to act more as a broad crested weir than sharp crested. The resulting back-calculated weir coefficient for the fully lowered waveshaper gate is approximately 2.6. This significantly reduced discharge coefficient is typical of shallow flow over weirs that are relatively long in the direction of flow. The new Obermeyer gate downstream of the waveshaper was assumed to be in a fully raised position for this model scenario. An isometric view of the depth-averaged velocities at drop structure 1 for this scenario is shown in Figure 17.

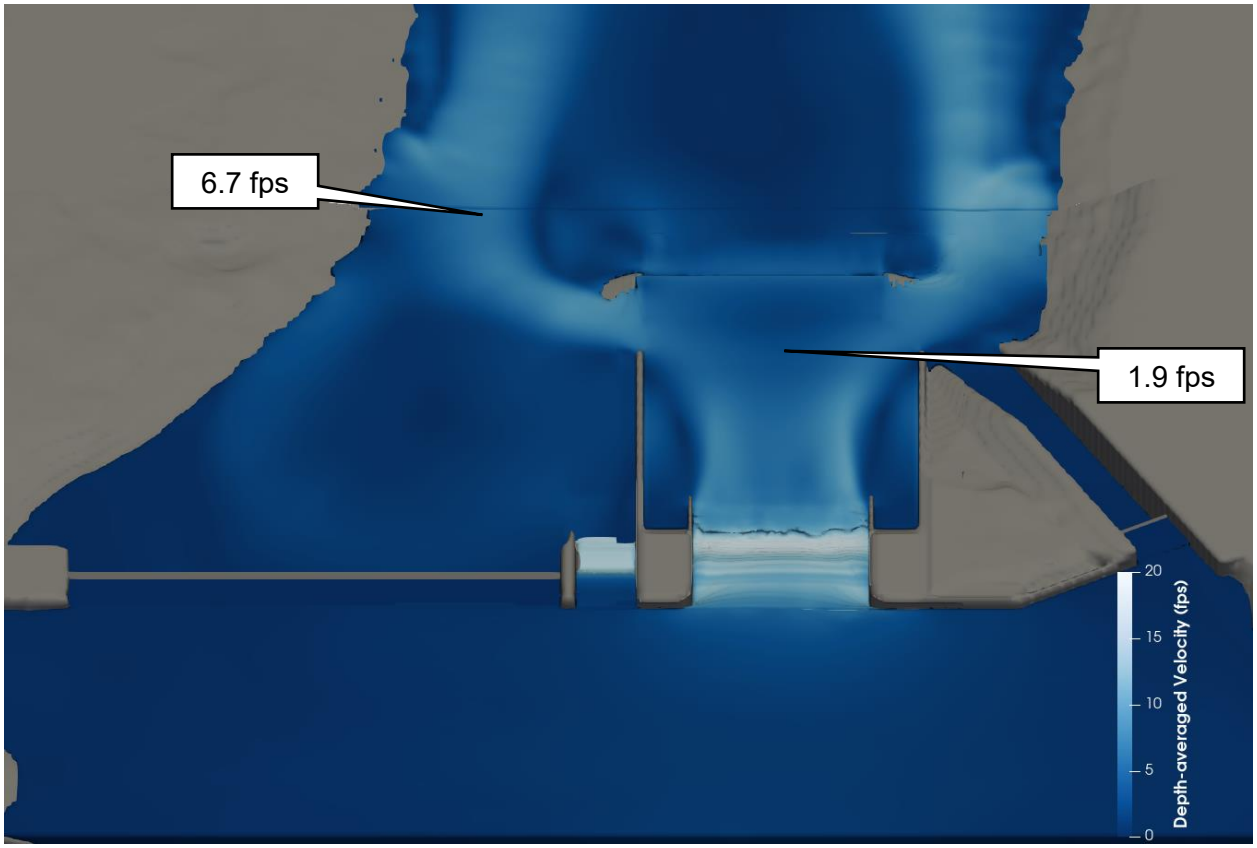

Figure 17 – Depth Averaged Velocities for Scenario 6 (Proposed Conditions, 830 cfs)

As can be seen in this figure, the flow regimes downstream of drop structure 1 are relatively similar to that of scenario 4. As anticipated, based on the larger flow rate, the depth-averaged velocities are slightly higher through the downstream reach. Velocities approaching the Obermeyer are approximately 1.9 fps, which is slightly higher than those of scenario 4. A similar flowpath streamline analysis was developed for this scenario and is shown in Figure 18.

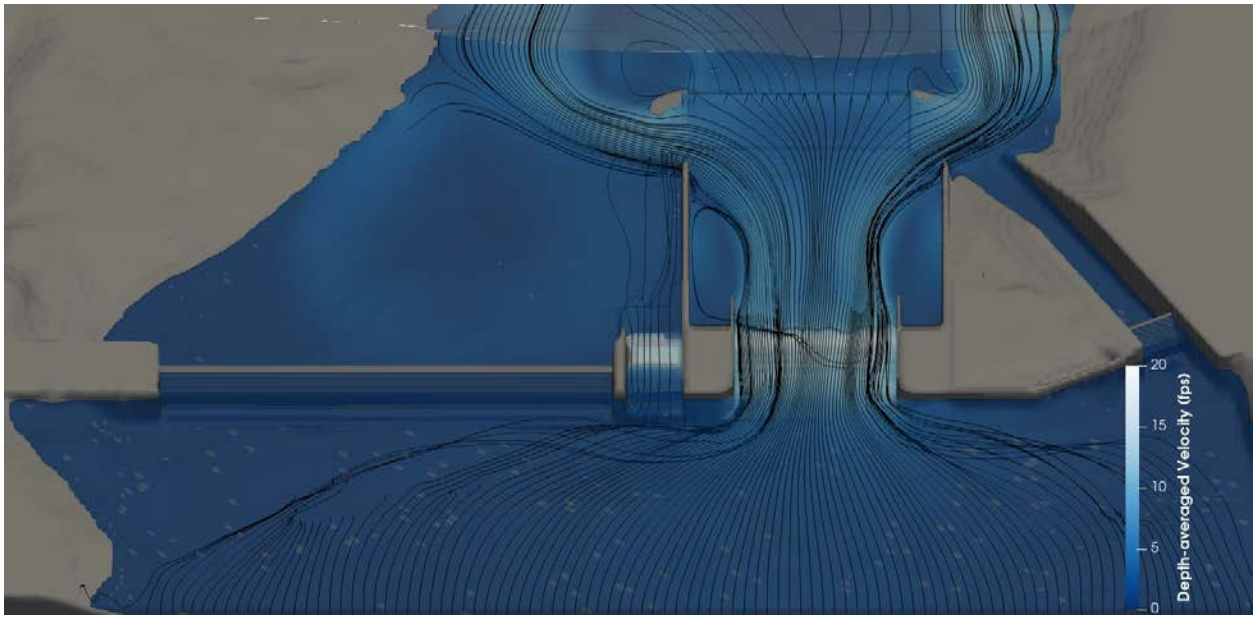

Figure 18 – Flowpath Streamlines for Scenario 6 (Proposed Conditions, 830 cfs)

Similar to the streamlines shown in Figure 12 for scenario 4, a small roller forms downstream of the new Obermeyer gate and a majority of flow passing over the waveshaper is diverted left of the new Obermeyer structure. To further evaluate the ability of the new Obermeyer gate to regulate tailwater elevations downstream of the waveshaper gate a cross section through the flow in this area is shown in Figure 19.

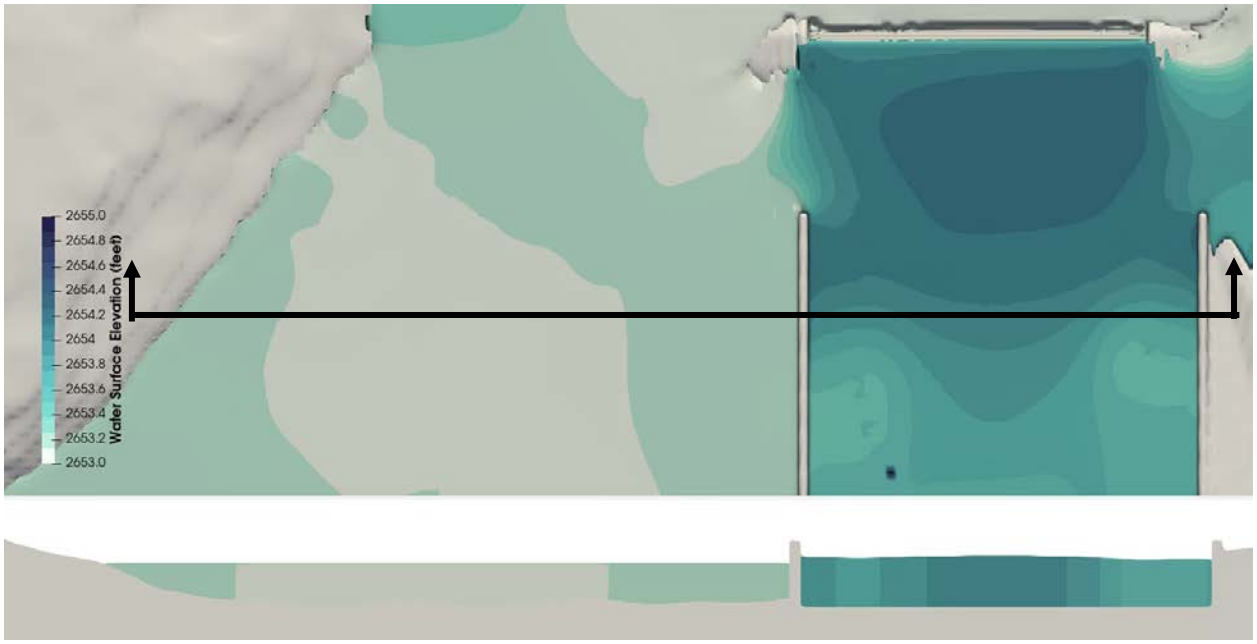

Figure 19 – Cross Section of Results of Scenario 6 (Proposed Conditions, 830 cfs)

As can be seen in this figure, the Obermeyer gate increases the tailwater elevation downstream of the waveshaper gate by approximately 1 foot when compared to the tailwater elevations downstream of the spillway. Additional increases in the tailwater elevation differential are observed when comparing points directly in front of the new Obermeyer to points downstream of the spillway gates.

3.3.1.7 Scenario 7 – Proposed Conditions Bankfull Capacity

In the bankfull capacity scenario, all gates are fully lowered to pass their maximum capacity in addition to the new Obermeyer proposed downstream. Under proposed conditions the bankfull capacity is estimated to be approximately 8,000 cfs which is equal to that of the existing conditions. An isometric of the depth-averaged velocities is shown in Figure 20.

Figure 20 – Depth Averaged Velocities for Scenario 7 (Proposed Conditions, Bankfull Capacity)

Similar to the existing conditions there is significant overtopping of the portions of drop structure 1 between gates 1 and 2 (sluice and waveshaper). In general, the estimated velocity regime for the proposed conditions is only slightly different in localized areas when compared to that of the existing conditions.

It is also important to evaluate the water surface elevations under this scenario to compare to the existing conditions to understand the implications of the new Obermeyer structure on the no-net-rise requirement. A plan view of the water surface elevations within the reach between drop structure 1 and drop structure 2 is shown in Figure 21.

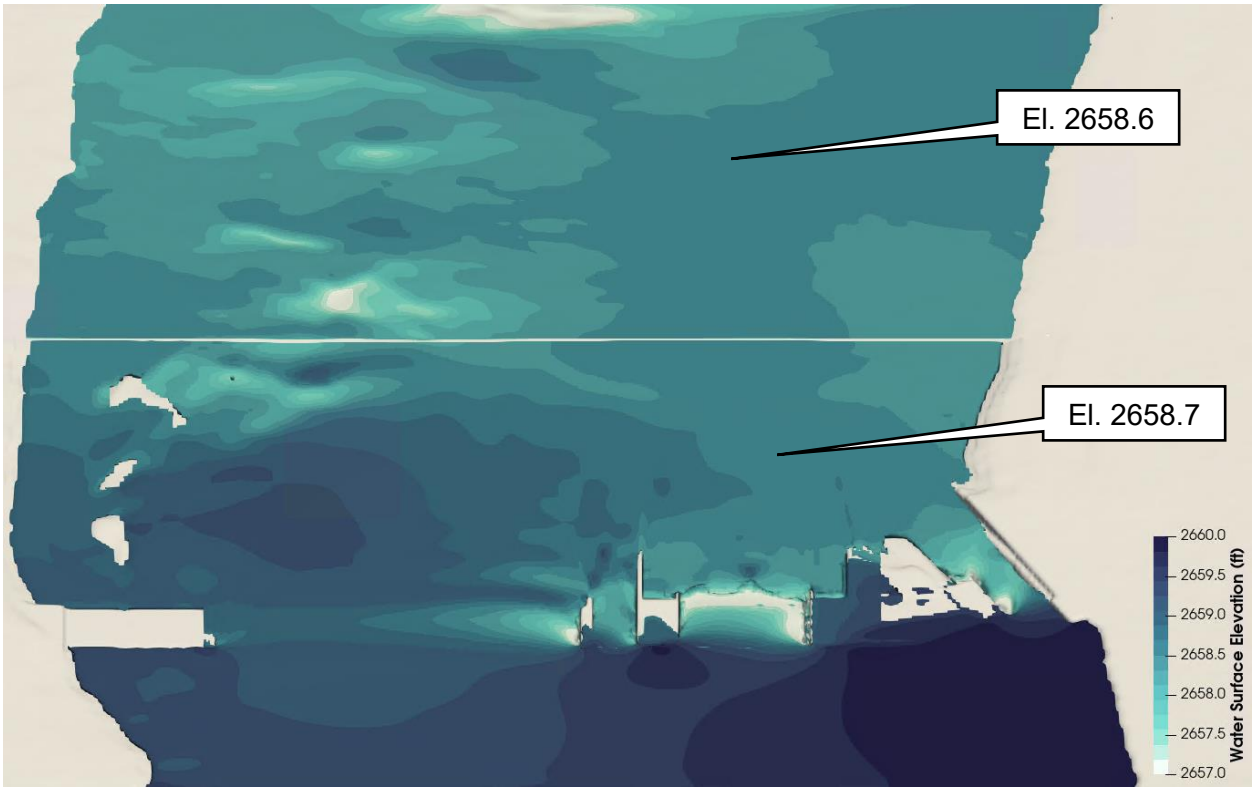

Figure 21 – Water Surface Elevations for Scenario 7 (Proposed Conditions, Bankfull Capacity)

As can be seen in this figure the water surface elevations in this area are variable but within the main channel generally range from approximately El. 2658.7 to El. 2658.6. Figure 22 shows a side-by-side comparison of the water surface elevations estimated for the existing conditions and proposed scenarios under bankfull conditions.

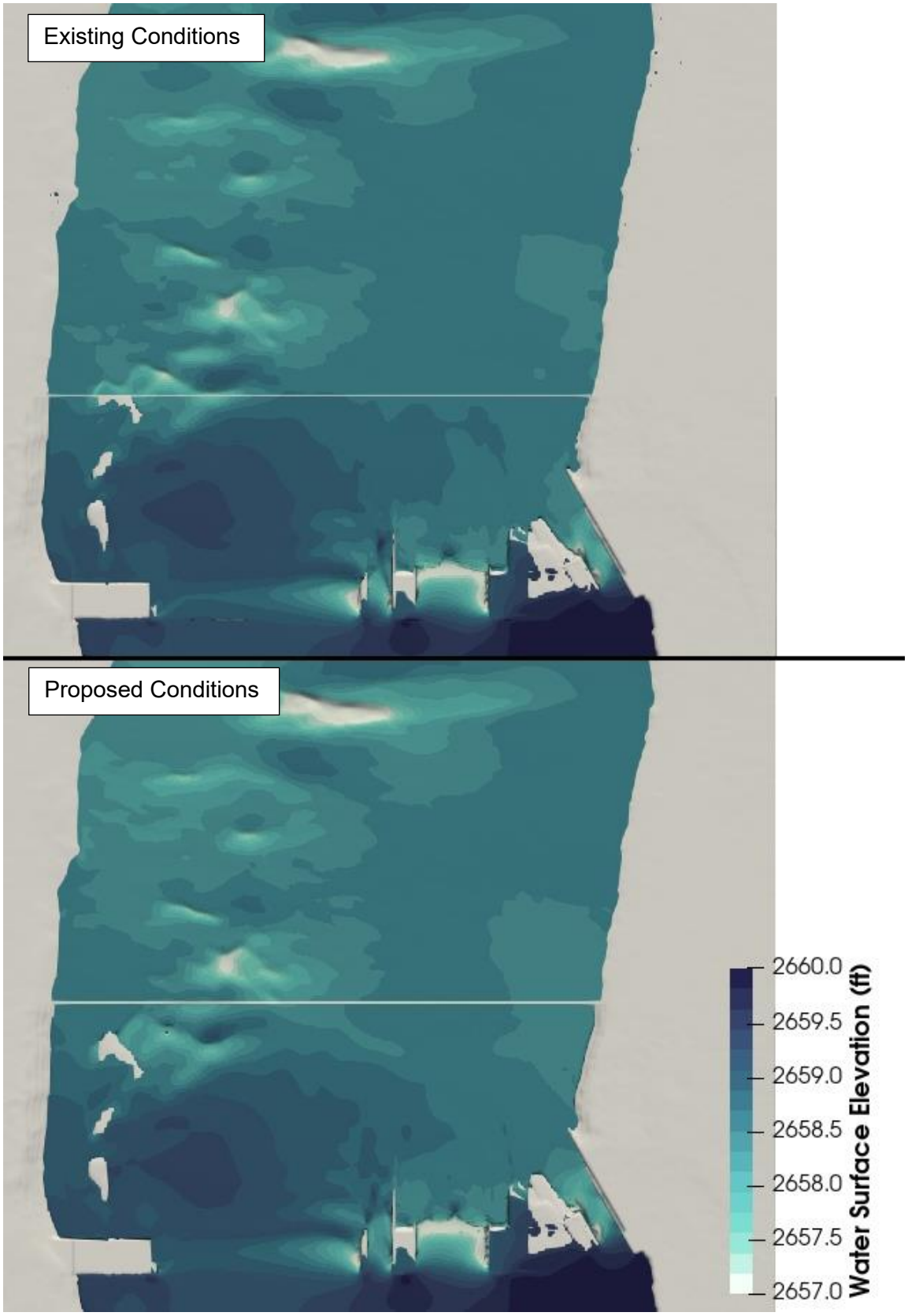

Figure 22 – Water Surface Elevations at Bankfull Capacity for Existing and Proposed Conditions

As can be seen in this figure, the water surface elevations downstream of drop structure 1 vary by less than 0.1 feet within the majority of the area of interest. Some slight variations are observed in localized areas which could be contributed to minor model instabilities which are inherent to the dynamic nature of CFD modeling.

3.3.2 Spillway Gates

The CFD model was also used to assess the hydraulic conditions of the modified spillway gates and new plunge pool. Two scenarios were specifically evaluated for the spillway gates: 1) New Gate 6 half lowered, and 2) Gate 6 fully lowered and Gates 5 and 7 half lowered. The results of these hydraulic analyses are discussed in the following sections.

3.3.2.1 Spillway Scenario 1 – Gate 6 Half Lowered

The first spillway scenario includes the crest of Gate 6 lowered to approximately El. 2654.3 which is equivalent to approximately half lowered. The results indicate that this gate would pass approximately 260 cfs in this configuration with the forebay at El. 2657.0. This is approximately 75 percent more than the empirically developed rating curve which indicates a discharge of approximately 150 cfs for this configuration. This can likely be attributed to the flows that pass over the left and right edges of the gate which are lower than the crest and are not accounted for in the empirical calculation. An isometric of the results of this scenario is shown in Figure 23.

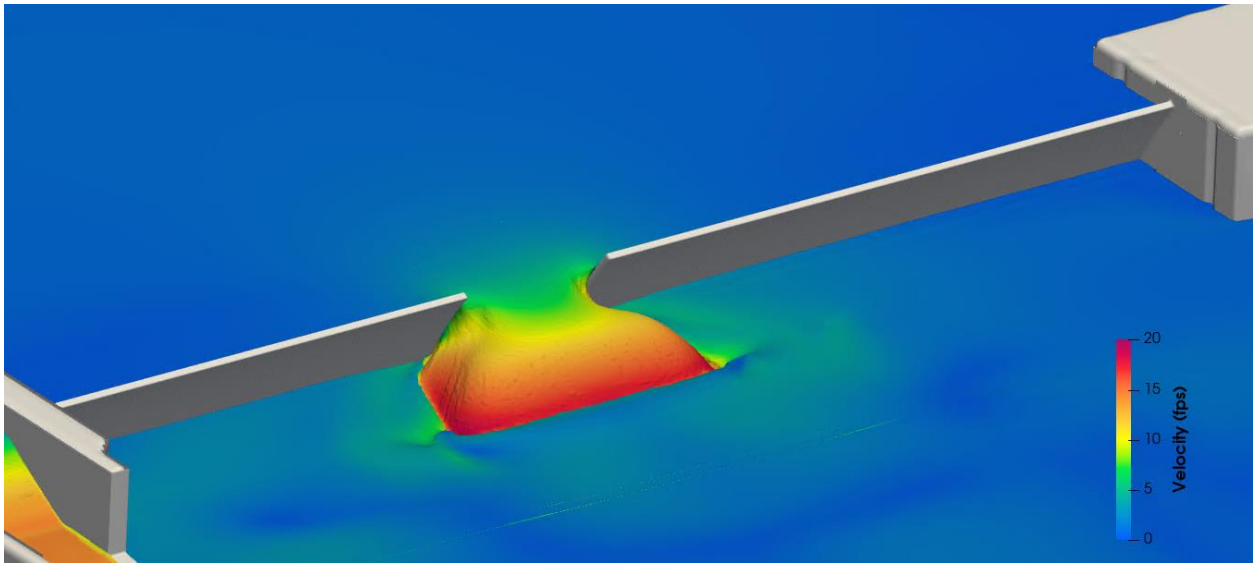

Figure 23 – Spillway Scenario 1 Isometric

As flows pass over the gate, the plunging nappe would impinge at the downstream end of the spillway slab into relatively shallow water. Velocities over the tip of the gate would reach approximately 18 fps. A cross section of the results is provided in Figure 24.

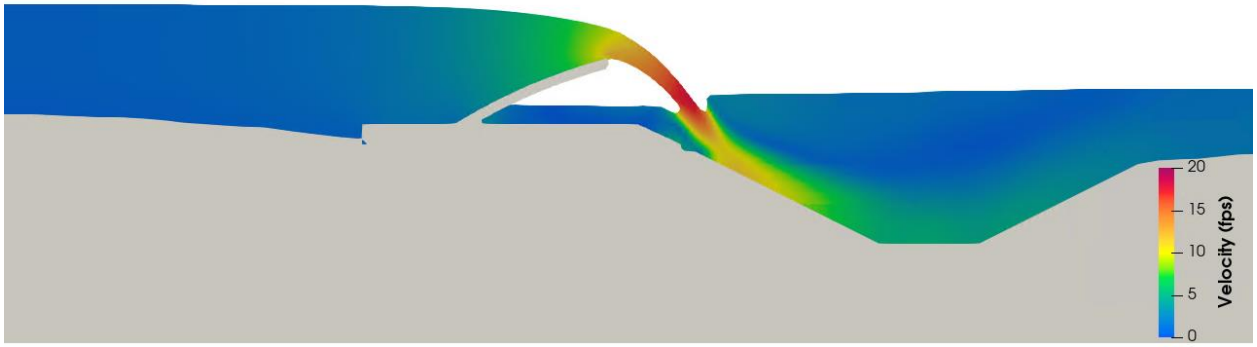

Figure 24 – Spillway Scenario 1 Cross Section

As can be seen in this figure, the velocities of the jet would be dissipated quickly but would generally be concentrated along the bottom of the plunge pool before rising to exit at the downstream end. Some slight backwards flow towards the gate would develop within the pool however velocities would be relatively low compared to the main flows directed downstream.

3.3.2.2 Spillway Scenario 2 – Gate 6 Fully and Gates 5 and 7 Half Lowered

The second spillway scenario includes Gate 5 fully lowered and the crest of Gates 6 and 7 lowered to approximately El. 2654.3 which is equivalent to approximately half lowered. The results indicate that the gates would pass a cumulative flow rate of approximately 870 cfs in this configuration with the forebay at El. 2657.0. Similar to the first scenario, this is more than estimated by the empirical analysis which indicates a capacity of approximately 770 cfs for this gate operation. This is approximately a 13 percent difference. This is closer to the empirical analysis then spillway scenario 1 as the internal edges of each gate are significantly submerged by the neighboring gates. An isometric of the results of this scenario is shown in Figure 25.

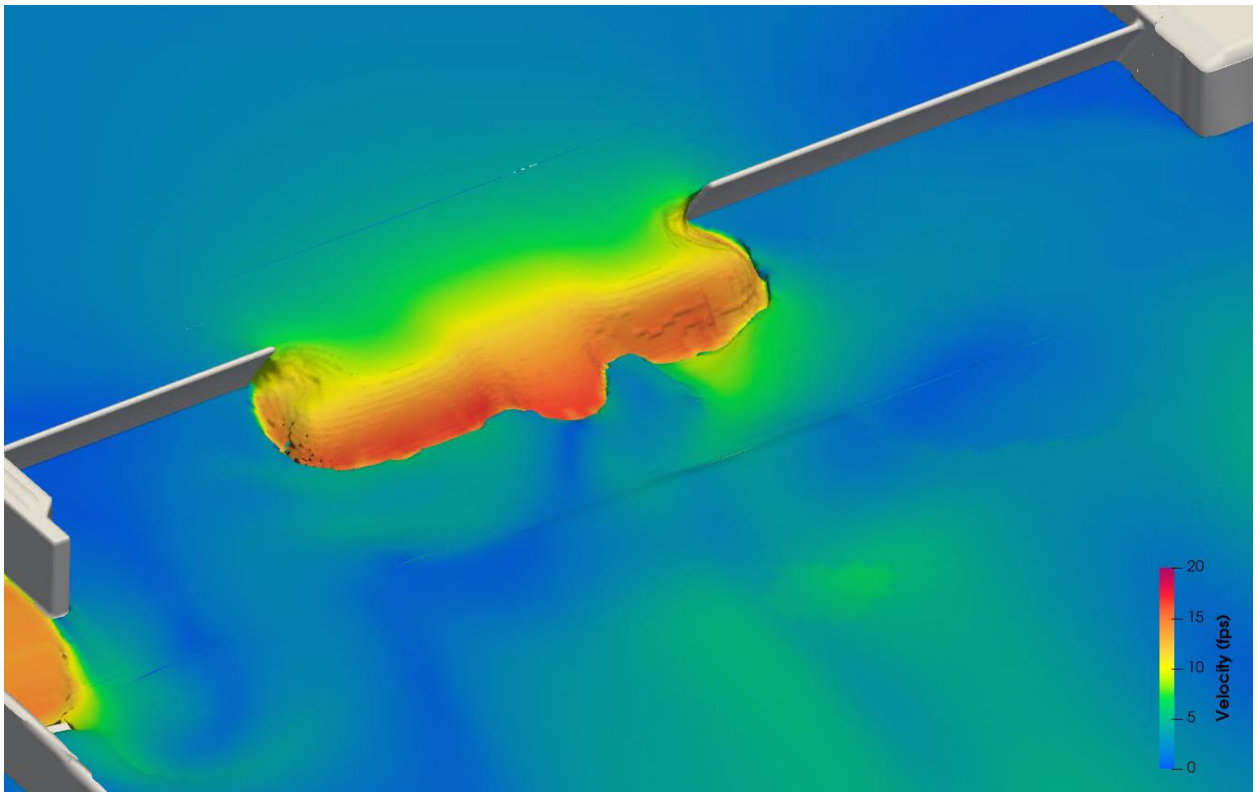

Figure 25 – Spillway Scenario 2 Isometric

As can be seen in this figure, velocities over the lowered gates reach approximately 17 fps with higher velocities concentrated near the center of the fully lowered Gate 6. Further, the same isometric with flow streamlines added is shown in Figure 26.

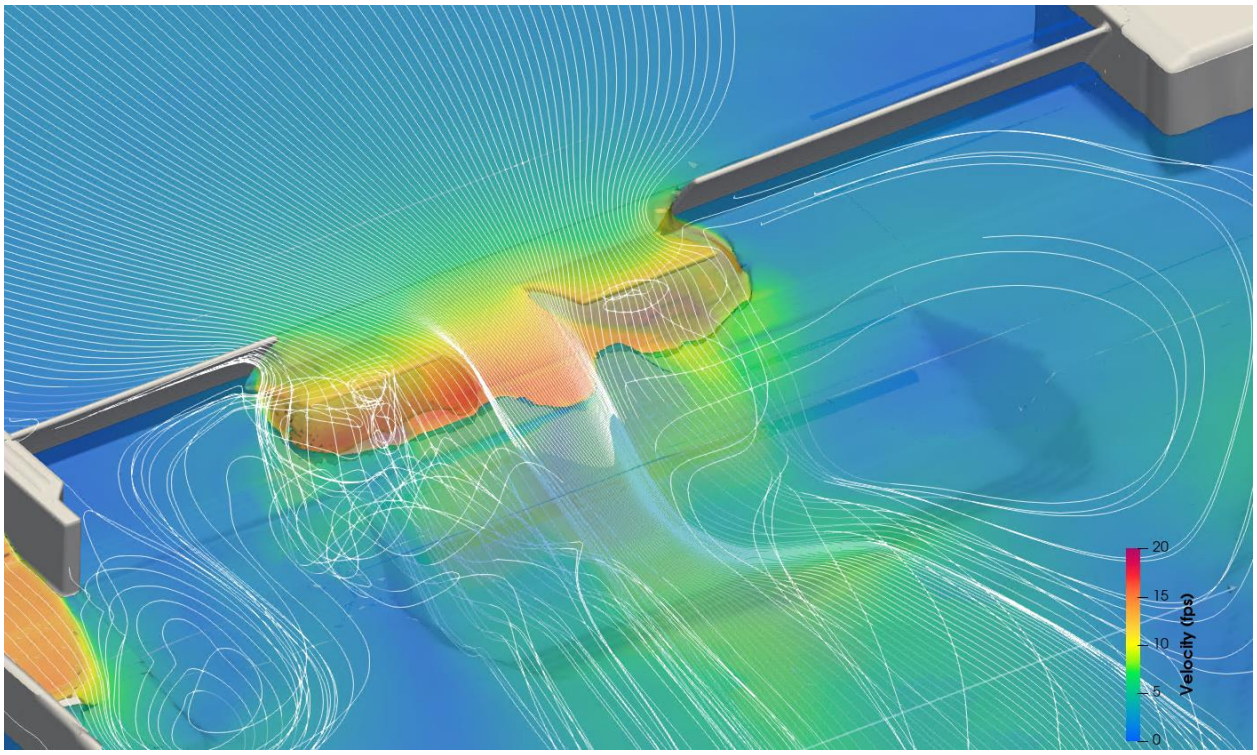

Figure 26 – Spillway Scenario 2 Isometric with Flow Streamlines

As can be seen in this figure, the majority of the streamlines from upstream of the gate are concentrated towards the central fully lowered gate. Some eddying is observed to the left and right of the gates though this is mainly due to flows deflecting off the river bank and the outside of waveshaper structure wall. Some flows are shown being pushed between the upper face of the center gate and lower faces of the side gates. These flows would likely be reduced by the Obermeyer gate bladders which are not included in the CFD model. Figure 27 shows cross sections through each spillway gate.

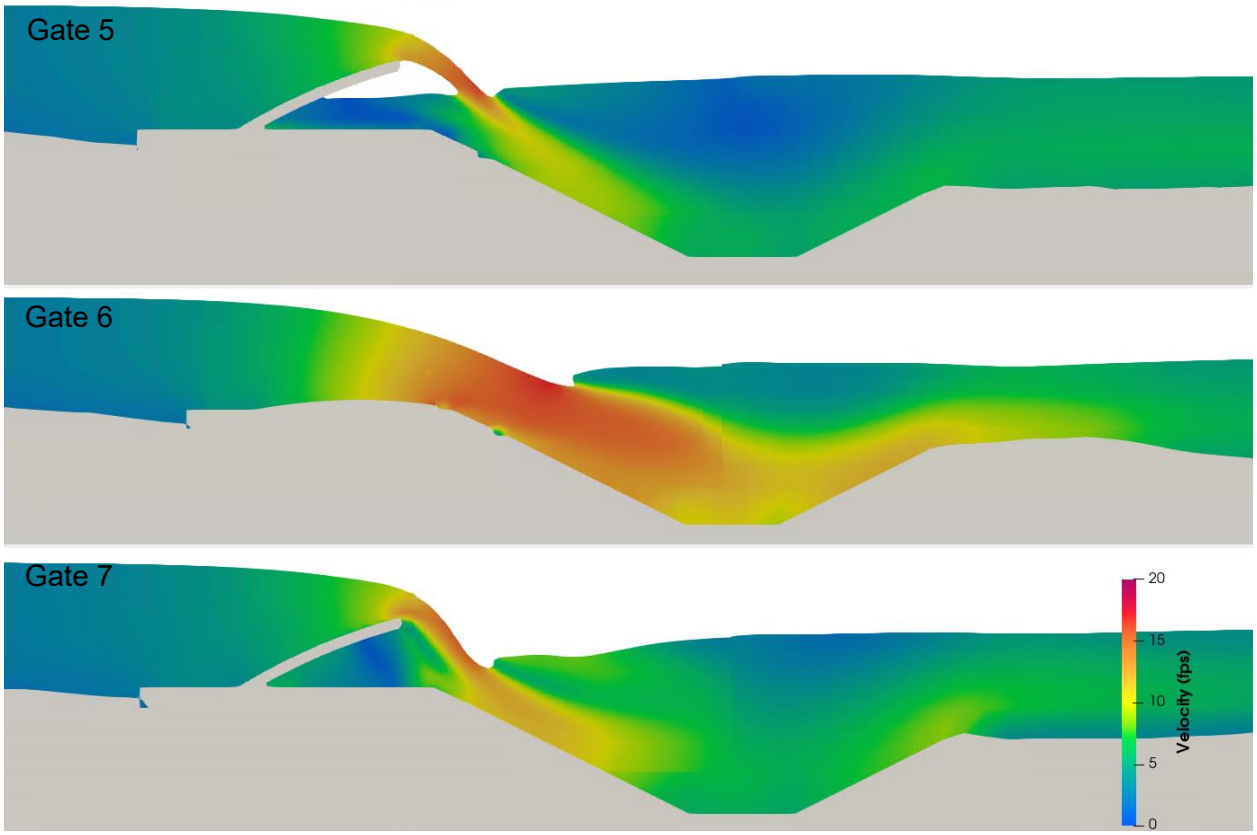

Figure 27 – Spillway Scenario 2 Cross Sections

As can be seen in this figure the hydraulics are variable at each gate but generally indicate a similar flow pattern of high velocities over the gate and entering the basin which dissipate in the plunge pool and are passed downstream. At gate 7 the nappe flow is depressed which is likely due to the dynamic CFD simulation and short time periods modeled. Over long term flows it is likely that the hydraulics would be more similar to those observed at Gate 5. Similar to the first spillway scenario, some slow recirculating velocities are observed within the new plunge pool but are generally minimal compared to the velocities passing downstream through the plunge pool.

4.0 Conclusions

McMillen has prepared a series of hydraulic analyses in support of the modification designs being developed for the J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase II. The results of the analyses presented in this TM show that the new Obermeyer gate proposed for downstream of the existing waveshaper gate could help to expand the operational range of the structure. Further, the proposed Obermeyer gate could be operated to limit impacts to the hydraulic regime within the Boise River during high flow events. The modifications to the spillway will help to improve the operational flexibility and the new plunge pool could allow for improved boater passage if they were to inadvertently pass over the spillway structure.

5.0 References

McMillen, Inc. (2023). *Technical Memorandum – Drop 1 Structure Modifications Scope of Work*. Boise, ID.

BOISE RIVER OUTDOOR OPPORTUNITIES

Adam Bass <abass@thebroo.com>

WWP Discussion Follow-up

Adam Bass <abass@thebroo.com> Tue, Feb 6, 2024 at 4:53 PM
To: "Jones, Cass" <Cass.Jones@idwr.idaho.gov>
Cc: "Golart, Aaron" <Aaron.Golart@idwr.idaho.gov>

Thank you for clarifying.

Adam Bass
Designated Agent
BOISE RIVER OUTDOOR OPPORTUNITIES
www.boiseriveroutdoor.com
208-519-2070
7661 W. Riverside Dr., Suite 104
Boise, ID 83714

On Tue, Feb 6, 2024 at 3:46 PM Jones, Cass <Cass.Jones@idwr.idaho.gov> wrote:

> Adam, 36-1601 is a Department of Fish and Game statute, IDWR does not have statutory authority over Title 36, Idaho Code. We are happy to have another conversation with you to clarify what we believe is a misunderstanding of our authority under Title 42, Chapter 38, Idaho Code, and believe requesting a hearing would likely not produce the results you are looking for. As discussed, IDWR is not involved with the operations of the park and based on our authority we do not plan to resend the permit. IDWR recommends contacting Idaho Department of Lands to discuss the encroachment permit issued for the park.
>
> **Cass Jones**
>
> **Stream Channel Protection**
>
> **Idaho Department of Water Resources**
>
> **(208) 287-4897**
>
> **Please consider the environment before printing this email**
>
> ---
>
> **From:** Adam Bass <abass@thebroo.com>
> **Sent:** Monday, February 5, 2024 3:29 PM
> **To:** Jones, Cass <Cass.Jones@idwr.idaho.gov>
> **Cc:** Golart, Aaron <Aaron.Golart@idwr.idaho.gov>
> **Subject:** Re: WWP Discussion Follow-up
>
>
>
> EXHIBIT D
>
> Good Afternoon Cass and Aaron,
>
> Following up on this, since the deadline to request a hearing is soon approaching and you requested me to reach out prior to requesting a hearing. What is the current status of IDWR as it relates to the approval of permit for the City to construct this feature and have this new operation plan at the wwp?
>
> If IDWR affirms this approach, a hearing will be requested to review the matter. Do you want to have another phone conversation regarding the items previously discussed? Do you have any initial responses to my perspective of these items after our discussion and my follow up email? Clarifying any misunderstanding I may have would be beneficial in determining whether a hearing is practical or not.

Regards,

Adam Bass

Designated Agent

www.boiseriveroutdoor.com

208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Fri, Feb 2, 2024 at 8:05 AM Adam Bass <abass@thebroo.com> wrote:

> Thank you Cass and Aaron for meeting up to clarify the process and to discuss the project, it is much appreciated.
>
> To follow up about the discussion of recreation and navigation. I hope that IDWR can see the two are connected when it comes to navigable rivers based on section 36-1601 of state code. It is in the best interest of the general public to recreate on a navigable river without having features constructed in it that impede navigability. IDWR has stated only being responsible for section 42-3801 which states public health, safety, and welfare relating to recreation. Section 36-1601 states what recreational uses are allowed on navigable rivers. Therefore, IDWR is responsible for both section 42-3801 and section 36-1601.
>
> There are two concepts brought up at our recent meeting 1) navigability only at highwater and 2) an absolute right to encroach on navigability if there is a headgate nearby. It is worth seeing how these hold up to idaho code 36-1601 relating to navigable rivers.
>
> 36-1601(a) NAVIGABLE STREAMS DEFINED. is used to determine what rivers can be deemed navigable (Boise River has been deemed navigable by IDL decades ago, so this doesn't apply to the wwp scenario)
>
> 36-1601(b) RECREATIONAL USE AUTHORIZED. This section objectively states what activities are allowed on rivers that have been deemed navigable (This applies to the wwp. 1)There is no mention of only during high-water.)
>
> 36-1601(c) ACCESS LIMITED TO NAVIGABLE STREAM. states what happens if the allowed activities cannot be met. It is intended to describe the general public's rights if their right to the allowed activities within the public waterway are seized. 2)There is no mention in this section relating to a private water right giving the owner an absolute right to seize allowed activities within the public waterway. Further, the City has no water right at the headgate operated by Farmer's Union and therefore has no authority to invoke section c.
>
> For this proposed project, I am concerned for the general public's health, safety, and welfare with the proposed operation of the City to have navigating watercraft travel through this feature that significantly increases navigational difficulty in the context of the Boise River. The plan is proposed for flows at around 1,500 cfs and below. This is when the nature of the Boise River doesn't have large aggressive features in it. The plan of significantly increasing difficulty of navigation encroaches on navigability. This is a subjective determination and I would be glad to provide more detail of my opinion why this proposed feature likely can be considered to significantly encroach on navigation but why a feature like at Phase 1 can likely be considered to only mildly encroach on navigation. Here is a link to the wave feature in question: https://www.youtube.com/watch?v=XGqZOTr0hRU
>
> I recommend IDWR to rescind their approval of permit to construct this feature.
>
> Respectfully,
>
> Adam Bass
>
> Designated Agent

www.boiseriveroutdoor.com

208-519-2070

7661 W. Riverside Dr., Suite 104

Boise, ID 83714

On Thu, Feb 1, 2024 at 2:23 PM Jones, Cass <Cass.Jones@idwr.idaho.gov> wrote:

> Adam, thanks for meeting with us this afternoon to discuss the recently issued permit for the WWP. Below is an explanation of the two statutes that allow an applicant or member of the public to request a hearing.
>
> > There are two applicable statutory provisions that are implicated by your question. First, IC § 42-3805 states "Within fifteen (15) days of the date of mailing of the decision, the applicant shall notify the director if it refuses to modify its plans in accordance with such decision or that it requests a hearing before the board thereon." The language of IC § 42-3085 provides the applicant an opportunity to request a hearing if the applicant disagrees with any portion of the decision the Department makes regarding a stream channel alteration application.
> >
> > The second statute is more generally applicable. IC § 42-1701A(3) states "Unless the right to a hearing before the director or the water resource board is otherwise provided by statute, any person aggrieved by any action of the director, including any decision, determination, order or other action, including action upon any application for a permit, license, certificate, approval, registration, or similar form of permission required by law to be issued by the director, who is aggrieved by the action of the director, and who has not previously been afforded an opportunity for a hearing on the matter shall be entitled to a hearing before the director to contest the action."
> >
> > IC § 42-3805 only applies to applicants for SCAPs. Therefore, if a member of the public is "aggrieved" by a decision related to a stream channel alteration application, they can request a hearing before the Director pursuant to IC § 42-1701A. The request for hearing pursuant to IC § 42-1701A must be filed with the Department within 15 days of receipt of written notice of the Department's action. See the Department's Rules of Procedure, for details on how to file the request for a hearing.
>
> If you have any questions, please let myself or Aaron know. We would like the opportunity to address any additional concerns you may have prior to requesting a hearing, so please don't hesitate to reach out.
>
> Take care.
>
> **Cass Jones**
>
> **Stream Channel Protection**
>
> **Idaho Department of Water Resources**
>
> **(208) 287-4897**
>
> **Please consider the environment before printing this email**

C. Tom Arkoosh, ISB No. 2253
Jeremy C. Rausch, ISB No. 11787
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P.O. Box 2900
Boise, ID 83701
Telephone: (208) 343-5105
Facsimile: (208) 343-5456
Email: tom.arkoosh@arkoosh.com
jeremy.rausch@arkoosh.com
Copy to: erin.cecil@arkoosh.com

Attorney for Petitioner

BEFORE THE DEPARTMENT OF WATER RESOURCES

IN AND FOR THE STATE OF IDAHO

IN THE MATTER OF THE PERMIT OF:	)	
	)	Permit No. S63-21092
CITY OF BOISE,	)	
PERMIT No: S63-21092	)	**MOTION FOR**
	)	**RECONSIDERATION**
	)	
Petitioner.	)	
	)	

COMES NOW the Petitioner, BOISE RIVER OUTDOOR OPPORTUNITIES, through its agent ADAM BASS ("Adam"), by and through its attorney of record, Jeremy C. Rausch of Arkoosh Law Offices, and hereby moves the Idaho Department of Water Resources to reconsider its *Joint Application for Permit No. S63-21092* ("Permit"), filed January 24, 2024. See attached a true and accurate copy of the Permit as **Exhibit A**.

This action is brought pursuant to Idaho Code § 67-5246, Adam having received a copy of the Permit on January 24, 2023, from the Idaho Department of Water Resources.

The Permit in this matter held: "IDWR has prepared a decision as provided for in Section 42-3805, Idaho Code. Your project has been determined to meet the Stream Channel Alteration Rules, IDAPA 37.03.07 Minimum Standards (Rule 55)." Exhibit A, p. 1. This conclusion relies

upon findings that are arbitrary and capricious and in violation of 33 U.S.C. § 403, Idaho Code §§ 42-3801, *et seq.*, and 36-1601, and the Public Trust Doctrine.

> An agency action may be vacated when the agency's findings, inferences, conclusions, or decisions are arbitrary or capricious. *Grace at Twin Falls, LLC v. Jeppesen*, 171 Idaho 287, 291-92, 519 P.3d 1227, 1231-32 (2022) (citations omitted). "An action is capricious if it was done without a rational basis" and "is arbitrary if it was done in disregard of the facts and circumstances presented or without adequate determining principles." *A & B Irrigation Dist. v. Idaho Dep't of Water Res.*, 153 Idaho 500, 511, 284 P.3d 225, 236 (2012) (citations omitted).

Skehan v. Idaho State Police, 2024 Ida. LEXIS 2, *14, 2024 WL 24568 (2024).

1. **The Department Acted Without Rational Basis Where There Was Evidence of Applicant's Numerous Violations of Contracts and Idaho Law Not Addressed.**

The actions of the Idaho Department of Water Resources are capricious because there was not a rational basis for the approval of the permit. First, the Permit states that the project is in compliance with the minimum standards, which includes requirements to dispose of removed materials outside where it could reenter during high flows. This fact is in direct contradiction of the later permission of discharge of current embankment stabilizations. Therefore, the Department could not have found that the permit met the minimum standards rule.

On December 28, 2023, petitioner provided public comment to the record for consideration by the hearing official, notifying the agency of the City of Boise's numerous violations and lack of consideration for previous and ongoing breaches of contracts with other state agencies and violations of Idaho Law. See attached a true and correct copy of Petitioner's Memorandum as **Exhibit B**. Of note is the agency's absence of findings that the project adequately addresses concerns about the navigability of the river. This not only impacts commercial users but also restricts the general public from use of the river, a right which is specifically limited by the easement granted to the City of Boise from the Idaho Department of Lands. See attached a true

and correct copy of the Easement as **Exhibit C** at p. 4. The City of Boise is permitting outside of its authority and limiting navigability of the river by falsely mandating portage through its Conditional Use Permit process. See attached a true and correct copy of the City of Boise's 2024 Conditional Use Permit Application, retrieved from City of Boise's website on January 31, 2024, as **Exhibit D** (the "CUP"). Exhibit D at p. 2. This is a violation of Idaho Code, breach of contract, and violation of the easement terms, and the agency does not have a basis to approve and permit the project to move forward.

2. **The Department Arbitrarily Approved the Permit Allowing the City of Boise to Continue to Violate Idaho Law.**

The Idaho Department of Water Resources has the authority to manage the water in the State of Idaho. The Idaho Constitution provides for the preservation of water rights for Idahoans, to include commercialization. Idaho Constitution Article XV. Additionally, the Courts have looked unfavorably on state agencies that act in contradiction to the use of public resources for the benefit of the public, the Public Trust Doctrine.

> When a state holds a resource which is available for the free use of the general public, a court will look with considerable skepticism upon *any* governmental conduct which is calculated *either* to relocate that resource to more restricted uses *or* to subject public uses to the self-interest of private parties.

City of Coeur d'Alene v. Mackin (In re Ownership of Sanders Beach), 143 Idaho 443, 453, 147 P.3d 75, 85, 2006 Ida. LEXIS 124, *30.

The Permit as approved further restricts the navigability of the Boise River and prevents the public from its use, reserving all rights exclusively to the City of Boise. This action is in direct conflict with Idaho Code §§ 42-3801 and 36-1601. Idaho Code § 42-3801 states, "The legislature of the state of Idaho hereby declares that the public health, safety and welfare requires that the stream channels of the state and their environments be protected against alteration for the

protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, and water quality." *Id.* (emphasis added). On December 28, 2023, Petitioner filed a memorandum citing issues with the Permit's supporting documentation that: (1) navigability was not a design consideration, (2) overly restrictive recreation opportunities associated with the project (3) introducing a manmade hazard unnecessarily (4) lack of aesthetics, and (5) harm to aquatic wildlife and insects. These are significant impacts to a public resource with a sole beneficiary, the City of Boise, which will exclude all except who it deems capable to navigate the feature. The feature has a history of failed performance and no guaranty that these modifications will allow for public use, to include potential need for shutdown of tuber bypass and requiring portage. Exhibit A at pp. 27-29. It is a violation of Idaho's Constitution, state statutes, and the Public Trust Doctrine for the Department to permit further modification of a structure with failed performance and safety issues with no guaranty of future performance and to an applicant that has constantly operated outside their scope of authority.

WHEREFORE, we respectfully request the Department to reconsider Permit No. S63-21092 and deny the permit due to the historic and ongoing lack of authority of the City of Boise to conduct its project and the violations of 33 U.S.C. § 403, Idaho Constitution Article XV, and the laws of Idaho to include Idaho Code §§ 42-3801, *et seq.*, and 36-1601, and the Public Trust Doctrine.

DATED this 7th day of February 2024.

ARKOOSH LAW OFFICES

Jeremy C. Rausch
Attorney for Petitioner

CERTIFICATE OF MAILING

I HEREBY CERTIFY that on the 7th day of February 2024, I served a true and correct copy of the foregoing document(s) upon the following person(s), in the manner indicated:

Idaho Department of Water Resources Director 322 E Front St Suite 648 Boise, ID 83702-7371	_____ _____ _____ _____ __X__	U.S. Mail, Postage Prepaid Overnight Courier Hand Delivered Via Facsimile E-mail: file@idwr.idaho.gov

Jeremy C. Rausch

IDAHO DEPARTMENT OF
WATER RESOURCES

322 E Front Street, Suite 648, Boise ID 83702 • PO Box 83720, Boise ID 83720-0098
Phone: 208-287-4800 • Fax: 208-287-6700 • Email: idwrinfo@idwr.idaho.gov • Website: idwr.idaho.gov

Governor Brad Little

Director Mathew Weaver

January 24, 2024

Sara Arkle
City of Boise – Parks and Recreation
1104 Royal Blvd.
Boise, ID 83706

RE: Joint Application for Permit No. S63-21092
Boise River – WWP Maintenance

Dear Ms. Arkle,

The Idaho Department of Water Resources (IDWR) has reviewed your above referenced application for a permit to alter the Boise River. IDWR has prepared a decision as provided for in Section 42-3805, Idaho Code. The conditions set forth in this permit are intended to prevent degradation of water quality, protect fish and wildlife habitat, and protect the long-term stability of the stream channel. If you cannot meet the conditions set forth in the permit, please contact this office for further consideration.

Your project has been determined to meet the Stream Channel Alteration Rules, IDAPA 37.03.07 Minimum Standards (Rule 55). You may consider this letter a permit to construct your project according to your application, received October 23, 2023, the administrative memo dated December 15, 2023, the revised hydraulics analyses submitted on December 29, 2023, and the updated diagrams you provided on January 3, 2024. Project activities include five (5) specific modifications to the Whitewater Park including:

- Modifications to gates five (5) and six (6) of the spillway to increase flexibility of operations through varying flow conditions. Two (2) existing 20-foot wide gates will be replaced with four (4) 10-foot wide gates and a five (5) foot plunge pool will be excavated below the spillway.
- New air lines will be installed along the existing routing path from the control building to the spillway gates. Approximately three (3) cubic yards of grouted riprap will be excavated, and three (3) cubic yards of grout and concrete will be discharged to install the new airlines.
- Repair leaks occurring between a side channel on the left descending bank and the main channel. Approximately 50-cubic yards of grouted riprap will be excavated, and approximately 50-cubic yards of concrete and grout will be discharged to install a membrane.
- Install a new Obermeyer gate downstream of Drop Struture 1. Approximately 40-cubic yards of streambed material will be excavated, and approximately 54-cubic yards of concrete and 21-cubic yards of clean angular rock riprap will be discharged to construct the gate. A temporary log boom will be relocated and placed in a way that allows downriver passage through Drop Structure 1.

EXHIBIT
A
1

Dewatering will occur between Drop Struture 1 and Drop Structure 3. Approximately 510-feet of the Boise River will be dewatered to allow work to occur in the dry. The applicant will coordinate with Idaho Department of Fish and Game on a fish salvage plan to help reduce stranding.

The project location is within Section 05, Township 03 North, Range 02 East, Ada County, Idaho

Failure to adhere to the conditions as set forth herein can result in legal action as provided for in Section 42-3809, Idaho Code. This project is subject to the following Minimum Standards, Special and General Conditions.

MINIMUM STANDARDS:

These standards are established in the Administrative Rules of the Idaho Water Resources Board; Stream Channel Alteration Rules, IDAPA 37.03.07 dated July 1, 2021, and are enclosed with this permit.

Rule 56 – Construction Procedures

SPECIAL CONDITIONS:

[1] All construction shall be completed in accordance with the descriptions and methods on the application, memo, hydraulic analyses, and diagrams attached herewith. This office must approve any changes prior to construction.

[2] All construction activities shall be conducted in such a manner as to minimize turbidity and comply with Idaho water quality standards. Construction shall take place during low flow and in dewatered areas to minimize turbidity and protect water quality.

[3] Dewatering of the Boise River shall be gradual (over 24 hours) behind coffers or within bypass reaches to promote fish escapement and reduce stranding. Fish salvage should be coordinated with Idaho Department of Fish and Game.

[4] In water work shall be conducted during low flow conditions, if flows are predicted to exceed 800 cfs the permittee shall contact IDWR to prepare and coordinate a shutdown plan of in-water activities.

[5] Log boom shall be placed according to diagram G005, allowing downriver passage through Drop Structure 1 immediately after construction is completed or before the permit expires on March 1, 2025.

[6] Cass Jones, IDWR Stream Protection Program 208-287-4897, shall be contacted within fourteen (14) days of completion of the project to schedule an inspection.

[7] Silt fencing or other erosion/sediment control measures shall be installed between any area of earth disturbance and the water. Erosion and sediment control measures must be installed during construction, according to the manufacturer's specifications, and must be maintained until construction is completed and the disturbed ground is revegetated and stable.

[8] All temporary structures, excess excavated material, and vegetative or construction debris shall be disposed of out of the stream channel where it cannot reenter the channel. All construction debris shall be removed from the site and disposed of properly.

[9] All fuel, oil, and other hazardous materials shall be stored and equipment refueled away from the stream channel to ensure that a spill will not enter the waterway. Equipment must be free of fuel and lubricant leaks. The operator shall have spill control materials available at all times during this project. These spill control materials shall include, but not be limited to, fuel and/or oil absorbent booms and absorbent pads. In the event of a release greater than 25 gallons of fuel or oil to the ground or to surface waters, the Idaho State Communications Center shall be contacted at 1-800-632-8000.

[10] Permittee is responsible for all work done by any contractor or sub-contractor and shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this authorization.

[11] This permit shall expire March 1, 2025.

GENERAL CONDITIONS:

1. This permit does not constitute any of the following:
   a. An easement or right-of-way to trespass or work upon property belonging to others.
   b. Other approval that may be required by Local, State or Federal Government, unless specifically stated in the special conditions above.
   c. Responsibility of IDWR for damage to any properties due to work done.
   d. Compliance with the Federal Flood Insurance Program, FEMA regulations, or approval of the local Planning and Zoning authority.

2. In accordance with Sections 55-2201 - 55-2210, Idaho Code, the applicant and/or contractors must contact Digline statewide phone number 1-800-342-1585 (Boise area 208-342-1585) not less than three working days prior to the start of any excavation for this project.

3. The permit holder or operator must have a copy of this permit at the alteration site, available for inspection at all times.

4. IDWR may cancel this permit at any time that it determines such action is necessary to minimize adverse impact on the stream channel.

Failure to adhere to conditions as set forth herein can result in legal action as provided for in Section 42-3809, Idaho Code.

If you object to the decision issuing this permit with the above conditions, you have 15 days in which to notify this office in writing that you request a formal hearing on the matter. If an objection has not been received within 15 days, the decision will be final under the provisions of IDAPA 37.03.07 (Rule 70).

Please contact Cass Jones 208-287-4897 or cass.jones@idwr.idaho.gov if you have any questions regarding this matter.

Sincerely,

Cass Jones
Stream Channel Protection
Idaho Department of Water Resources

cc: Josh Wilson, City of Boise
Dean Johnson, Idaho Department of Lands, Boise
Brandon Flack, Idaho Department of Fish & Game, Boise
Chase Cusack and Lance Holloway, Idaho Department of Environmental Quality, Boise
US Army Corps of Engineers, Boise
Aaron Golart and Katie Gibble, Idaho Department of Water Resources, Boise
Adam Bass, Boise River Outdoor Opportunities, Boise

056. CONSTRUCTION PROCEDURES (RULE 56).

01. Conformance to Procedures. Construction shall be done in accordance with the following procedures unless specific approval of other procedures has been given by the Director. When an applicant desires to proceed in a manner different from the following, such procedures should be described on the application. (3-18-22)

02. Operation of Construction Equipment. No construction equipment shall be operated below the existing water surface without specific approval from the Director except as follows: Fording the stream at one (1) location only will be permitted unless otherwise specified; however, vehicles and equipment will not be permitted to push or pull material along the streambed below the existing water level. Work below the water which is essential for preparation of culvert bedding or approved footing installations shall be permitted to the extent that it does not create unnecessary turbidity or stream channel disturbance. Frequent fording will not be permitted in areas where extensive turbidity will be created. (3-18-22)

03. Temporary Structures. Any temporary crossings, bridge supports, cofferdams, or other structures that will be needed during the period of construction shall be designed to handle high flows that could be anticipated during the construction period. All structures shall be completely removed from the stream channel at the conclusion of construction and the area shall be restored to a natural appearance. (3-18-22)

04. Minimizing Disturbance of Area. Care shall be taken to cause only the minimum necessary disturbance to the natural appearance of the area. Streambank vegetation shall be protected except where its removal is absolutely necessary for completion of the work adjacent to the stream channel. (3-18-22)

05. Disposal of Removed Materials. Any vegetation, debris, or other material removed during construction shall be disposed of at some location out of the stream channel where it cannot reenter the channel during high stream flows. (3-18-22)

06. New Cut of Fill Slopes. All new cut or fill slopes that will not be protected with some form of riprap shall be seeded with grass and planted with native vegetation to prevent erosion. (3-18-22)

07. Fill Material. All fill material shall be placed and compacted in horizontal lifts. Areas to be filled shall be cleared of all vegetation, debris and other materials that would be objectionable in the fill. (3-18-22)

08. Limitations on Construction Period. The Director may limit the period of construction as needed to minimize conflicts with fish migration and spawning, recreation use, and other uses. (3-18-22)

Adaptive Environmental Planning

October 23, 2023

To: Idaho Department of Water Resources
Stream Channel Protection Program
(submitted electronically to: file@idwr.idaho.gov)

Subject: Boise Whitewater Park Phase II Modifications Project
Re: Joint Application for Permits

On behalf of the City of Boise, please find enclosed the Joint Application for Permits (JAP) for the Boise Whitewater Park Phase II Modifications Project. Work is proposed for winter 2023/2024 in the Boise River during the non-irrigation season when flows are expected to be at their lowest volume.

Included in the application package is:
1. Joint Application for Permits
2. Design Drawings
3. Temporary Dewatering Figures
4. Photographs

Based upon a review of Endangered Species Act and National Historic Preservation Act information, proposed modifications to the Boise Whitewater Park Phase II outlined in this JAP will not impact species or cultural/historical sites greater than the analysis conducted for the original permits (S63-20701).

If you have any questions regarding this application, please feel free to contact me at greg@adaptiveenviro.com / 208-340-5721 (cell) with any questions. I look forward to working with you on this project.

Sincerely,

Greg Allington

Greg Allington / Adaptive Environmental Planning, LLC (Senior Biologist)
Authorized Agent

cc: Sara Arkle (Parks Resource Superintendent) – City of Boise Parks and Recreation Department
sarkle@cityofboise.org / 208-608-7637

Mort McMillen, PE (Engineer) – McMillen
mortmcmillen@mcmillen.com / 208-342-4214 (Office) / 208-830-1394 (Cell)

ATTACHMENT 1
JOINT APPLICATION FOR PERMITS

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authorities: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38, Idaho Code and Lake Protection Act (Section 58, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8½"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY			
USACE NWW-	Date Received:	☐ Incomplete Application Returned	Date Returned:
Idaho Department of Water Resources No.	Date Received:	☐ Fee Received DATE:	Receipt No.:
Idaho Department of Lands No.	Date Received:	☐ Fee Received DATE:	Receipt No.:

INCOMPLETE APPLICANTS MAY NOT BE PROCESSED

1. **CONTACT INFORMATION - APPLICANT** Required:			2. **CONTACT INFORMATION - AGENT:**		
Name: Sara Arkle-Parks Resource Superintendent			Name: Greg Allington		
Company: City of Boise-Parks and Recreation Department			Company: Adaptive Environmental Planning		
Mailing Address: 1104 Royal Blvd			Mailing Address: 2976 East State Street, Ste. 120 #431		
City: Boise	State: ID	Zip Code: 83706	City: Eagle	State: ID	Zip Code: 83616
Phone Number *(include area code)*: 208-608-7637	E-mail: sarkle@cityofboise.org		Phone Number *(include area code)*: 208-340-5721	E-mail: greg@adaptiveenviro.com	

3. PROJECT NAME or TITLE: Boise Whitewater Park Phase II Modifications			4. PROJECT STREET ADDRESS: 3206 W Pleasanton Ave.	
5. PROJECT COUNTY: Ada	6. PROJECT CITY: Boise		7. PROJECT ZIP CODE: 83702	8. NEAREST WATERWAY/WATERBODY: Boise River
9. TAX PARCEL ID#: S1004325655	10. LATITUDE: 43.628478 LONGITUDE: -116.234613		11a. 1/4: 11b. 1/4: 11c. SECTION: 5	11d. TOWNSHIP: 3N 11e. RANGE: 2E
12a. ESTIMATED START DATE: Dec 1, 2023	12b. ESTIMATED END DATE: Feb 29, 2024		13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? ☒ NO ☐ YES Tribe:	
13b. IS PROJECT LOCATED IN LISTED ESA AREA? ☒ NO ☐ YES			13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? ☒ NO ☐ YES	

14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks.

From W State Street in Boise travel south on N Whitewater Park Blvd until you reach the Esther Simplot Park main entrance. Follow the drive over the bridge to the western-most parking lot adjoining the Boise River.

15. PURPOSE and NEED: ☐ Commercial ☐ Industrial ☒ Public ☐ Private ☐ Other

Describe the reason or purpose of your project; include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project.

The purpose of the project is repair/modify components of the existing Whitewater Park Phase II Drop Structure 1 to improve public safety and enhance functionality of the existing facilities.

16. DETAILED DESCRIPTION OF EACH ACTIVITY WITHIN OVERALL PROJECT. Specifically indicate portions that take place within waters of the United States, including wetlands: Include dimensions; equipment, construction, methods; erosion, sediment and turbidity controls; hydrological changes: general stream/surface water flows, estimated winter/summer flows; borrow sources, disposal locations etc.:

Refer to the attached Design Plans for detailed locations of the following PERMANENT features (all impacts are within the OHWM of the Boise River (perennial stream) and there are no wetland impacts):
-Modify Gates 5 & 6 on Drop Structure 1 (Drawing G005 Key Note "A")
Net 0 CY / 0 SF
-New Plunge Pool downstream of Gates 5 & 6 (Drawing G005 Key Note "H")
Excavate 412 CY & Fill 278 CY (riprap and grout) / 1,250 SF
-New Air Pipe Lines to Gates 5 & 6 (Drawing G005 Key Note "B")
Excavate 3 CY (riprap and grout) & Fill 3 CY (concrete, grout, and pipe) / 53 SF
-Repair Leakage on Left Bank (Drawing G005 Key Note "G")
Excavate 50 CY (riprap and grout) & Fill 50 CY (concrete, grout, and membrane) / 660 SF
- New Obermeyer Weir downstream of Wave Shaper (Drawing G005 Key Note "D")
Excavate 40 CY & Fill 54 CY (concrete and gate) & Fill 21 CY (riprap) / 714 SF
Refer to the attached Temporary Dewatering Figures for detailed locations of the following TEMPORARY features (all impacts are within the OHWM of the Boise River (perennial stream) and there are no wetland impacts):
-Boise River Dewatering between Drop Structures 1 and 3 (Dewatering Figures)
Dewater 1.4 acres / 510 linear feet and complete fish salvage (fish will be relocated downstream in the Boise River in coordination with IDFG)
100 cfs will be diverted around the work area and discharge back to the Boise River downstream of Drop Structure 3
All flow above 100 cfs will be diverted into the Farmer's Union Canal which flows back to the Boise River downstream of Veteran's Memorial Parkway

17. DESCRIBE ALTERNATIVES CONSIDERED to AVOID or MEASURES TAKEN to MINIMIZE and/ or COMPENSATE for IMPACTS to WATERS of the UNITED STATES, INCLUDING WETLANDS: See Instruction Guide for specific details.

There were no other alternatives considered to repair/modify the existing structures.

Impacts to the Boise River from the repairs/modifications and the new Obermeyer Weir are all within the previously approved disturbance area for the Whitewater Park Phase II.

18. PROPOSED MITIGATION STATEMENT or PLAN: If you believe a mitigation plan is not needed, provide a statement and your reasoning why a mitigation plan is NOT required. Or, attach a copy of your proposed mitigation plan.

The repairs/modifications are being implemented in the previously approved disturbance area for the Whitewater Park Phase II resulting in 0.045 acres of impacts.

The new Obermeyer Weir is proposed for installation in the previously approved disturbance area resulting in 0.016 acres of impact.

There is no mitigation proposed for this project.

19. TYPE and QUANTITY of MATERIAL(S) to be discharged below the ordinary high water mark and/or wetlands:

Dirt or Topsoil:	_____	cubic yards
Dredged Material:	_____	cubic yards
Clean Sand:	_____	cubic yards
Clay:	_____	cubic yards
Gravel, Rock, or Stone:	_____	cubic yards
Concrete:	_____	cubic yards
Other (describe): _____	_____	cubic yards
Other (describe: _____	_____	cubic yards
TOTAL: _____		cubic yards

20. TYPE and QUANTITY of impacts to waters of the United States, including wetlands:

Filling:	_____ acres	_____ sq ft.	_____	cubic yards
Backfill & Bedding:	_____ acres	_____ sq ft.	_____	cubic yards
Land Clearing:	_____ acres	_____ sq ft.	_____	cubic yards
Dredging:	_____ acres	_____ sq ft.	_____	cubic yards
Flooding:	_____ acres	_____ sq ft.	_____	cubic yards
Excavation:	_____ acres	_____ sq ft.	_____	cubic yards
Draining:	_____ acres	_____ sq ft.	_____	cubic yards
Other: _____	_____ acres	_____ sq ft.	_____	cubic yards
TOTALS:	_____ acres	_____ sq ft.	_____	cubic yards

21. HAVE ANY WORK ACTIVITIES STARTED ON THIS PROJECT? ☒ NO ☐ YES If yes, describe ALL work that has occurred including dates.

22. LIST ALL PREVIOUSLY ISSUED PERMIT AUTHORIZATIONS:

USACE & IDEQ: NWW-2009-00090
IDWR: S63-20701

23. ☒ YES, Alteration(s) are located on Public Trust Lands, Administered by Idaho Department of Lands

24. SIZE AND FLOW CAPACITY OF BRIDGE/CULVERT and DRAINAGE AREA SERVED: N/A Square Miles

25. IS PROJECT LOCATED IN A MAPPED FLOODWAY? ☐ NO ☒ YES If yes, contact the floodplain administrator in the local government jsrisdiction in which the project is located. A Floodplain Development permit and a No-rise Certification may be required.

26a WATER QUALITY CERTIFICATION: Pursuant to the Clean Water Act, anyone who wishes to discharge dredge or fill material into the waters of the United States, either on private or public property, must obtain a Section 401 Water Quality Certification (WQC) from the appropriate water quality certifying government entity.
See Instruction Guide for further clarification and all contact information.

The following information is requested by IDEQ and/or EPA concerning the proposed impacts to water quality and anti-degradation:

☐ NO ☒ YES Is applicant willing to assume that the affected waterbody is high quality?
☐ NO ☒ YES Does applicant have water quality data relevant to determining whether the affected waterbody is high quality or not?
☒ NO ☐ YES Is the applicant willing to collect the data needed to determine whether the affected waterbody is high quality or not?

26b. BEST MANAGEMENT PRACTICTES (BMP's): List the Best Management Practices and describe these practices that you will use to minimize impacts on water quality and anti-degradation of water quality. All feasible alternatives should be considered - treatment or otherwise. Select an alternative which will minimize degrading water quality

Water will be diverted out of the active construction area using a combination of temporary cofferdams and raising the existing gates on the wave shaper and sluiceway. The main flood control weirs have infrastructure built into the concrete and stoplogs/plastic sheeting will be used to cofferdam water. The water surface elevation will be lowered upstream of Drop Structure 1 and water will be lower than the entrance elevation into the side channel on the left bank by the fish ladder.

0-100 cfs will be diverted into the existing underground diversion pipe that was used during the initial construction of the Whitewater Park. Any flow above 100 cfs will be diverted into the Farmer's Union Canal intake which returns to the Boise River downstream of Veteran's Memorial Parkway. No flow will enter the Farmer's Union Canal past their intake gate structure.

All construction work will be performed in the dry. Dewatering pumps will be installed on an as-needed basis and the hoses will outlet downstream of the active work area back into the Boise River.

Through the 401 Certification process, water quality certification will stipulate minimum management practices needed to prevent degradation.

27. LIST EACH IMPACT to stream, river, lake, reservoir, including shoreline: Attach site map with each impact location.

Activity	Name of Water Body	Intermittent Perennial	Description of Impact and Dimensions	Impact Length Linear Feet
			TOTAL STREAM IMPACTS (Linear Feet):	

28. LIST EACH WETLAND IMPACT include mechanized clearing, fill excavation, flood, drainage, etc. Attach site map with each impact location.

Activity	Wetland Type: Emergent, Forested, Scrub/Shrub	Distance to Water Body (linear ft)	Description of Impact Purpose: road crossing, compound, culvert, etc.	Impact Length (acres, square ft linear ft
NONE				
			TOTAL WETLAND IMPACTS (Square Feet):	

29. ADJACENT PROPERTY OWNERS NOTIFICATION REQUIREM: Provide contact information of ALL adjacent property owners below.

Name: Waterfront District HOA Inc. Mailing Address: PO Box 45387 City: Boise State: Zip Code: 83711 Phone Number (include area code): NA E-mail: NA	Name: Idaho State Parks & Recreation Mailing Address: 5657 E Warm Springs Ave City: Boise State: ID Zip Code: 83712 Phone Number (include area code): NA E-mail: NA
Name: Farmers Union Ditch Co LTD Mailing Address: Po Box 1474 City: Eagle State: ID Zip Code: 83616 Phone Number (include area code): NA E-mail: NA	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:
Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:	Name: Mailing Address: City: State: Zip Code: Phone Number (include area code): E-mail:

30. SIGNATURES: STATEMENT OF AUTHORIAZATION / CERTIFICATION OF AGENT / ACCESS

Application is hereby made for permit, or permits, to authorize the work described in this application and all supporting documentation. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein; or am acting as the duly authorized agent of the applicant (Block 2). I hereby grant the agencies to which this application is made, the right to access/come upon the above-described location(s) to inspect the proposed and completed work/activities.

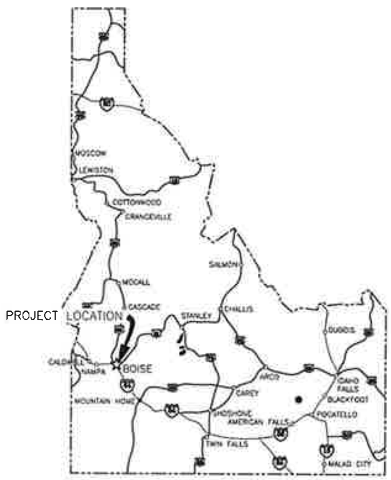
Signature of Applicant: _____ *Date:* 10/23/23

Signature of Agent: Greg Allington *Date:* 10/23/2023

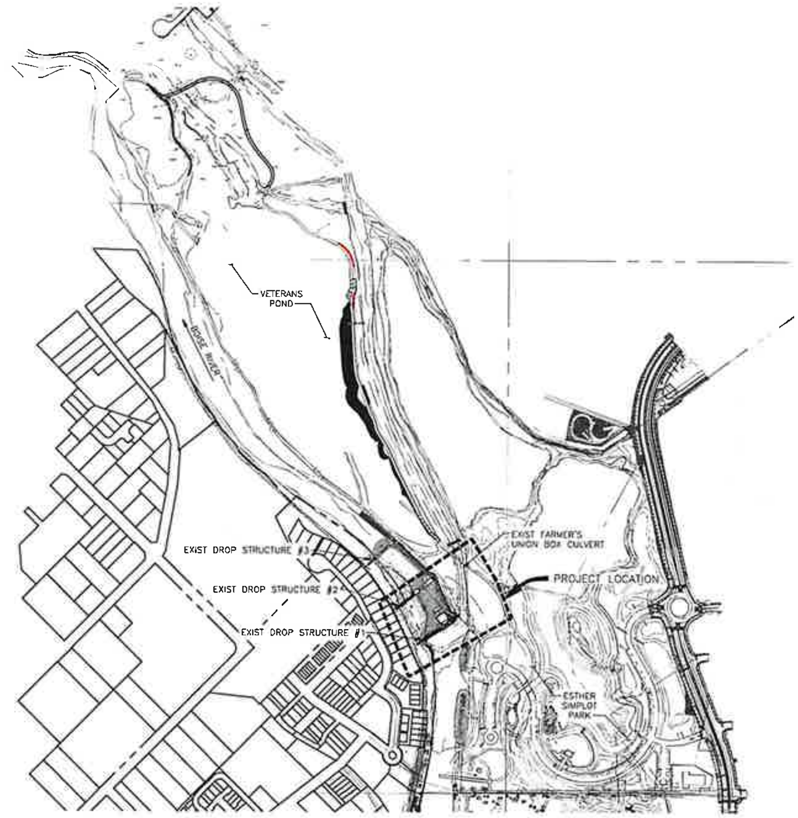
This application must be signed by the person who desires to undertake the proposed activity AND signed by a duly authorized agent (see Block 1, 2, 30). Further, 18 USC Section 1001 provides that: *"Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both".*

ATTACHMENT 2
DESIGN DRAWINGS

CITY OF BOISE
J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK
2023 WINTER SPILLWAY MODIFICATIONS



LOCATION MAP
NTS



PROJECT LIMITS
NTS

VICINITY MAP
NTS

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/16/22	MDM	SUBMITTAL DRAWINGS

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

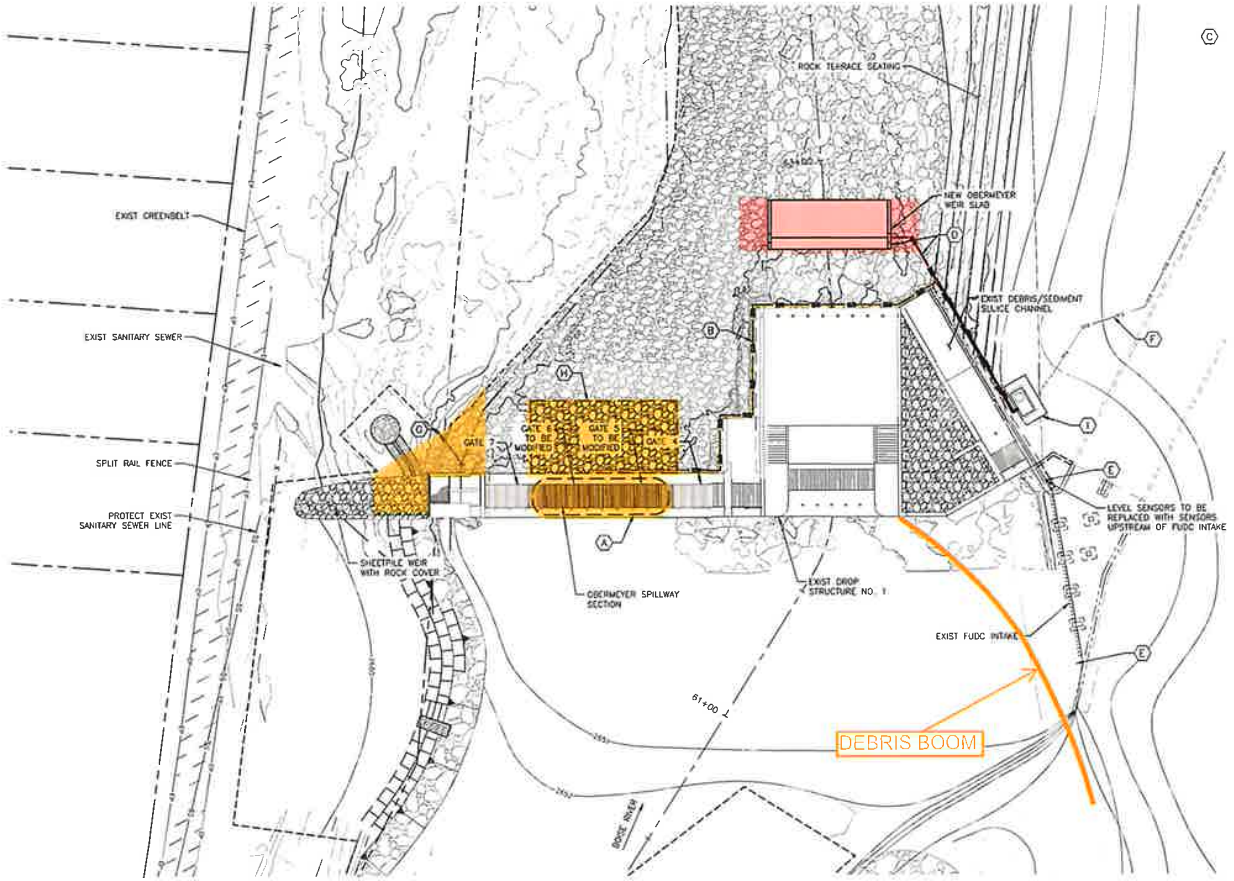
McMillen

CITY OF BOISE
J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

LOCATION MAP, VICINITY MAP, AND PROJECT LIMITS

DESIGNED J. BOAG
DRAWN R. WOOD
CHECKED M. McMILLEN
ISSUED DATE 08/09/23

DRAWING
G001
SHEET 1 OF 19
SCALE: AS NOTED



REACH 2 DROP STRUCTURE 1 DESIGN MODIFICATION PLAN

SCALE: 1"= 20'

SHEET KEY NOTES:

A. REMOVE AND MODIFY GATES 5 AND 6 PER OBEMEYER DRAWINGS. MODIFICATIONS INCLUDE SPLITTING WEIR TO TWO (APPROXIMATELY EQUAL 10' SECTIONS) SECTIONS, ADDING SEAL LEAKS, SEAL FACING BARS, NEW SMALLER AIR BAGS, ADDING AN ADDITIONAL INCLINOMETER AND CABLE, REVISING RETAINING STRAPS. SEE OBERMEYER SHOP DRAWINGS FOR GATE MODIFICATION DETAILS.

B. ADD TWO NEW CONTROL ZONES FROM EQUIPMENT BUILDING AND ROUTE ALONG DOWNSTREAM EDGE OF STRUCTURES AS SHOWN ON MECH DRAWINGS. ENCASE LINES IN CONCRETE PER STRUCTURAL DRAWINGS.

C. CONFIGURATION OF AIR PIPING IN EQUIPMENT ROOM AS SHOWN ON MECH AND ELEC DRAWINGS. MCMILLEN TO MODIFY PLC PROGRAMMING FOR THE NEW GATE CONFIGURATION.

D. NEW 40' W X 4' TALL OBERMEYER WEIR TO BE ADDED TO STABILIZE EXISTING WAVESHAPER GATE TO BE ADDED WITH NEW SLAB, END WALLS, AIRLINE(S) AND CONDUIT AS REQUIRED BY OBERMEYER DRAWINGS.

E. ABANDON EXISTING EMBEDDED STILLING WELLS AND ADD NEW STILLING WELL UPSTREAM OF FUDC INTAKE. RUN CONDUIT ON UNDERSIDE OF EXISTING HANDRAIL, PAINT CONDUIT TO MATCH HANDRAIL.

F. ROUTE NEW AIR LINES AND CONDUIT ALONG EXISTING UTILITY ROUTING.

G. MITIGATE LEAKAGE BY INSTALLATION OF MEMBRANE ON LEFT BANK AS SHOWN ON CIVIL DRAWINGS.

H. ADD PLUNGE POOL DIRECTLY DOWNSTREAM OF MODIFIED SPILLWAY GATES PER CIVIL DRAWINGS.

I. REMOVE UNIT HEATER AND WIRING TO PURGE VALVES IN VAULT. REPLACE TERMINALS FOR INSTRUMENTATION WITH WATERPROOF HEAT SHRINK SPLICES.

Existing Structure Modifications In Boise River

New Structure In Boise River

New Structure or Modifications In Upland

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

REACH 2 DROP STRUCTURE 1
DESIGN MODIFICATION PLAN

DESIGNED J. BOAG

DRAWN R. WOOD

CHECKED M. McMILLEN

ISSUED DATE 08/09/23

DRAWING G005

SHEET 5 OF 19

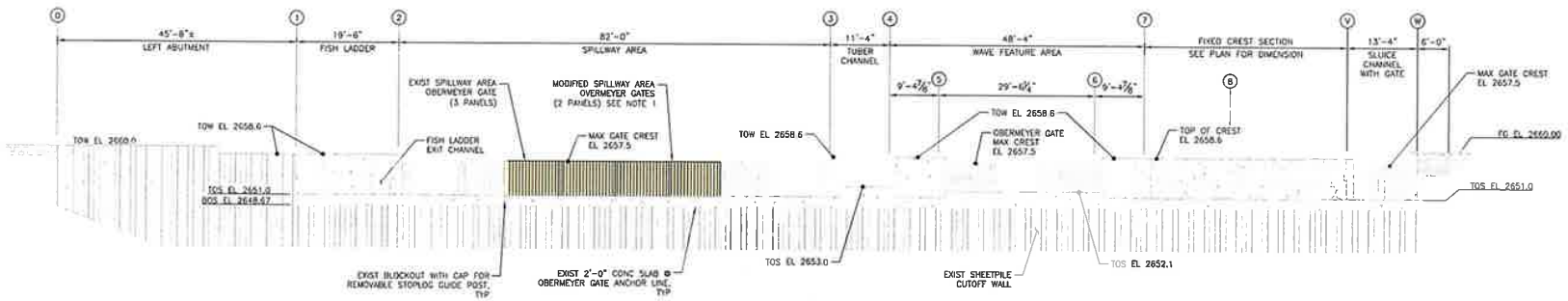
SCALE: AS NOTED

JOB NO. 13-108

Path: C:\Users\vboehlke\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\4.0 Modification Modifications\4.11 Internal Design\6.0 Plans and Specs\6.3 CAD_C6005.dwg Plot date: Aug 14, 2023 10:02pm

SHEET NOTES:

1. EXISTING GATE TO BE SPLIT INTO 2 GATES. LOCATION OF SPLIT, DESIGN OF GATES, AND ANCHORAGE REQUIREMENTS SHALL BE AS SPECIFIED BY GATE MANUFACTURER. ATTACHMENT TO CONCRETE SHALL BE AS SPECIFIED BY GATE MANUFACTURER AND THE DETAILS IN THESE DRAWINGS. NOTIFY ENGINEER OF ANY CHANGED CONDITIONS AND REQUIRED CONCRETE MODIFICATIONS NOT SHOWN IN THESE DRAWINGS.



REACH 2 – DROP STRUCTURE 1 SECTION

SCALE: 3/32"= 1'-0"

A S103

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

REACH 2 DROP STRUCTURE 1
SECTION

DESIGNED A. JABIR
DRAWN R. WOOD
CHECKED M. MERKLEIN
ISSUED DATE 08/09/23

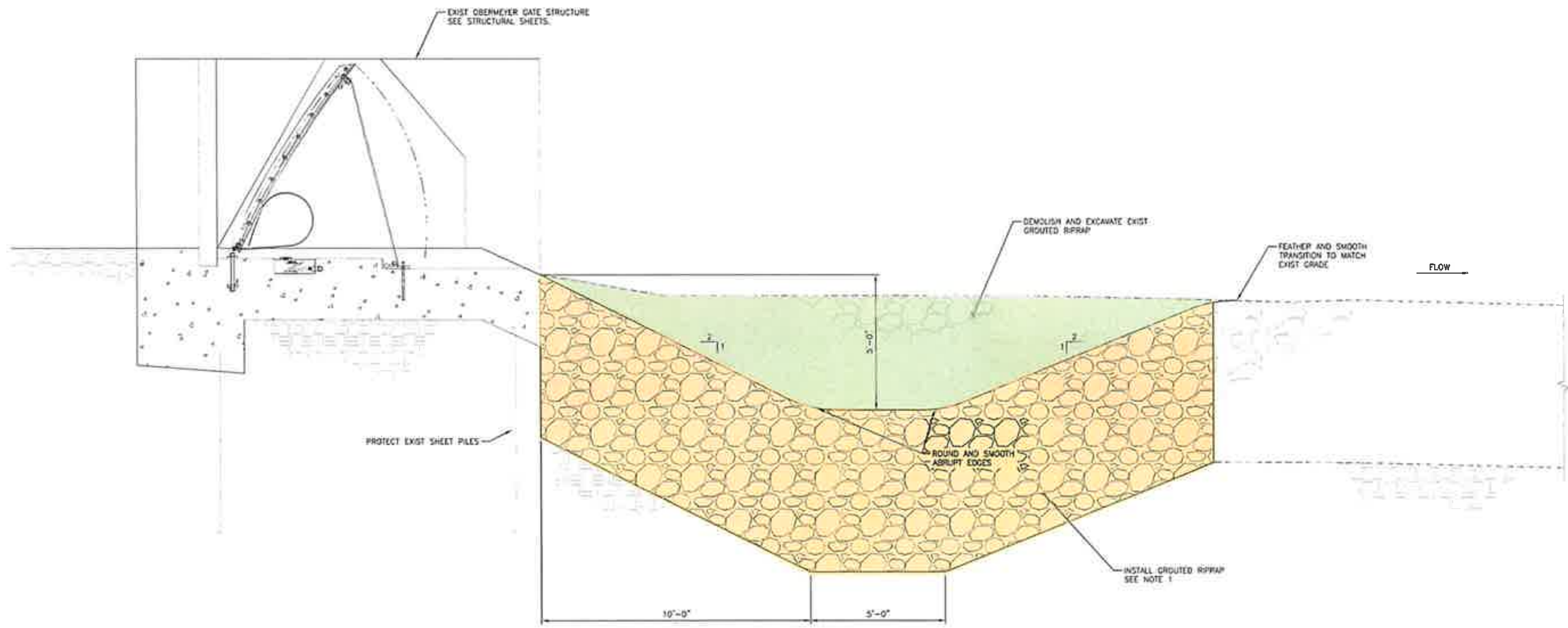
DRAWING
S103
SHEET ---- OF 19
SCALE: AS NOTED

JOB NO 13-108

Plotted: C:\Users\Woodlan\Box\WDM Projects\City of Boise\Boise River Water Park Design-Build\14.0 Whitewater Modifications\14.11 Detail Design\6.0 Plans and Specs\6.3 CAD_S103.dwg Plot date: Aug 14, 2023 10:03pm

SHEET NOTES:

1. PLACE RIPRAP D50 = 3 FT AND GROUT TO MATCH EXIST. SEE SPECS FOR RIPRAP MATERIAL AND GROUTING METHOD. GROUTED RIPRAP SHALL BE GRINDED FOR A SMOOTH FINISH.



PLUNGE POOL SECTION

SCALE: 1/2" = 1'-0"

A / C101

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING

0 1/2 1

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE

J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

PLUNGE POOL SECTION

DESIGNED K. VO

DRAWN R. WOOD

CHECKED M. McMILLEN

ISSUED DATE 08/09/23

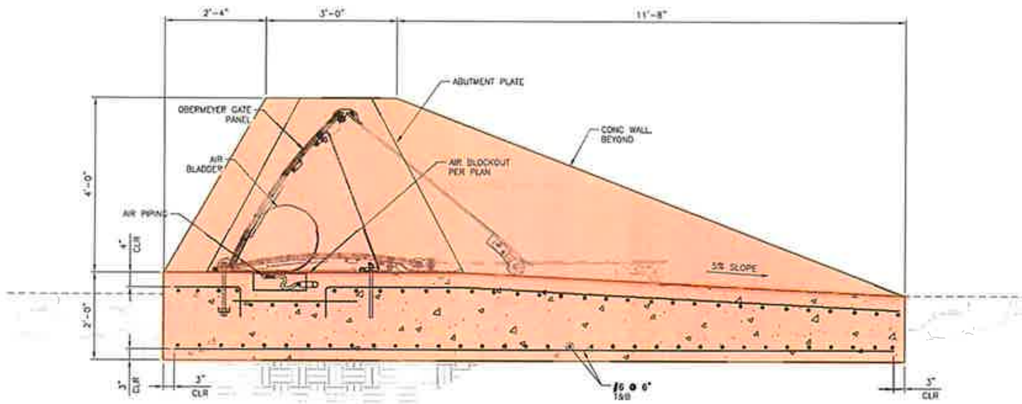
DRAWING C102

SHEET ---- OF 19

SCALE: AS NOTED

JOB NO 13-108

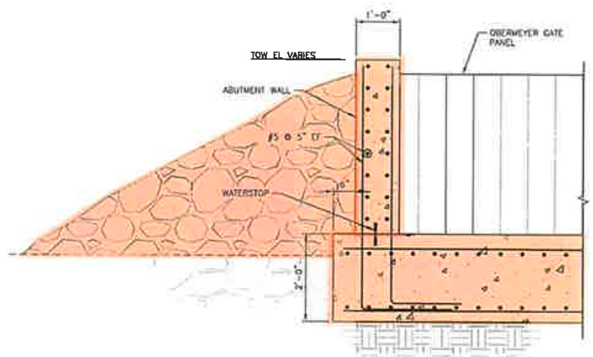
Path: C:\Users\...\C102.dwg Plot date: Aug 14, 2023 10:03pm



ADJUSTABLE WEIR SLAB FOUNDATION SECTION

SCALE: 3/4"= 1'-0"

A / S107



ADJUSTABLE WEIR WALL SECTION

SCALE: 3/4"= 1'-0"

B / S107

REV	DATE	BY	DESCRIPTION
B	08/09/23	MDM	SUBMITTAL DRAWINGS
A	11/18/22	MDM	SUBMITTAL DRAWINGS

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

McMillen

CITY OF BOISE
J.A. AND KATHRYN ALBERTSON FAMILY FOUNDATION
BOISE WHITEWATER PARK

ADJUSTABLE WEIR SLAB FOUNDATION SECTION

DESIGNED B. BARRON
DRAWN R. WOOD
CHECKED M. MERKLEIN
ISSUED DATE 08/09/23

DRAWING S108
SHEET ----OF 19
SCALE: AS NOTED
JOB NO 13-108

Path: C:\Users\WoodRon\Box\MCM Projects\City of Boise\Boise River Water Park Design-Build\14.0 McLaughlin Modifications\14.11 Internal Design\6.0 Plans and Specs\6.3 CAD_S108.dwg Plot date: Aug 14, 2023 10:04pm

ATTACHMENT 3
TEMPORARY DEWATERING FIGURES

Adaptive Environmental Planning

Boise River Diversion Map

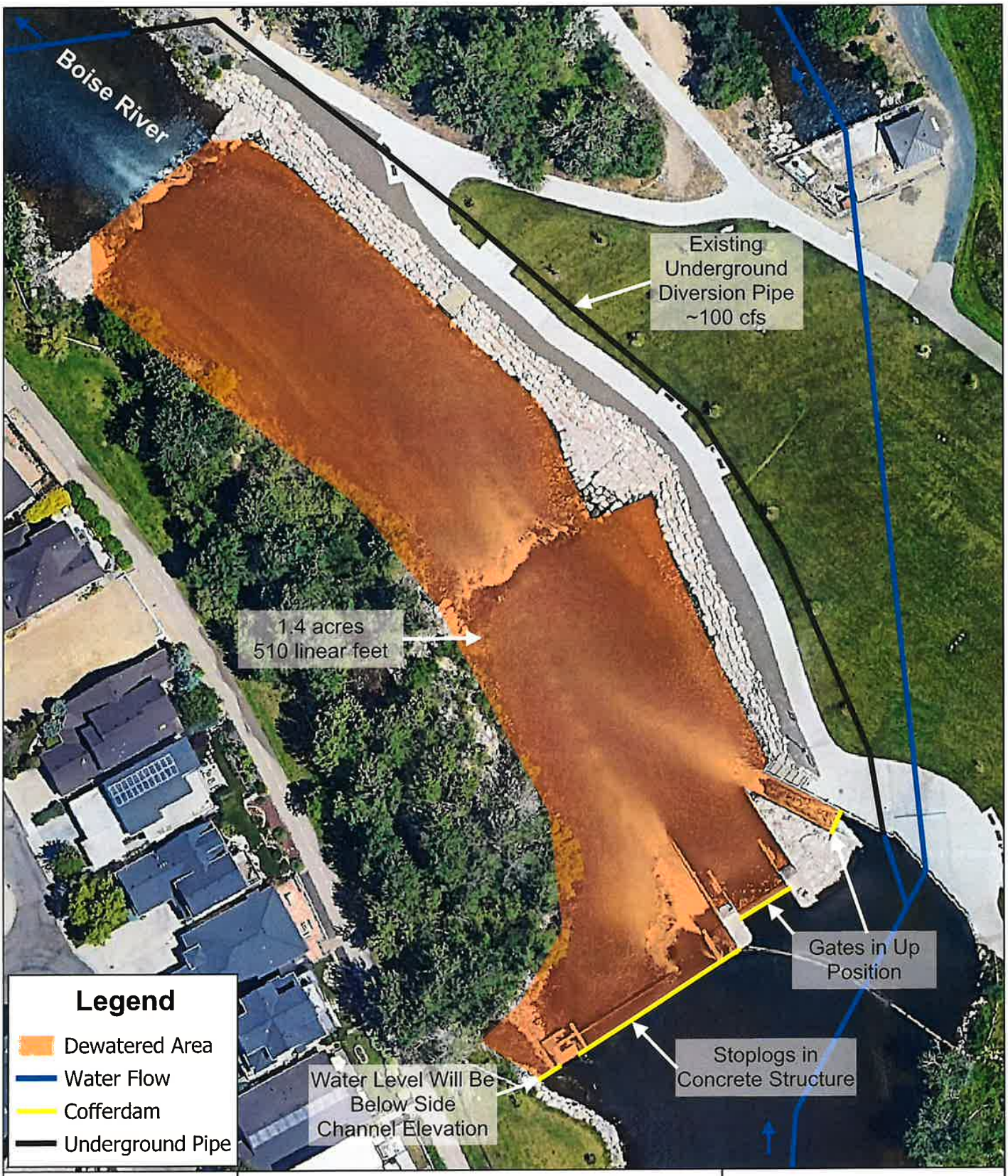
City of Boise Whitewater Park Phase II Mods

Boise, Idaho (Ada County)

Joint Application for Permits

N

0 250 500 ft



Adaptive Environmental Planning

Boise River Dewatering Map

City of Boise Whitewater Park Phase II Mods

Boise, Idaho (Ada County)

Joint Application for Permits

N

0 40 80 ft

ATTACHMENT 4
PHOTOGRAPHS

Photograph 1. Drop Structure 1 Gates 5 & 6 looking Downstream (October 2023).

Photograph 2. Drop Structure 1 Gates 5 & 6 and Plunge Pool Area looking Upstream (October 2023).

Photograph 3. Left Bank Side Channel Entrance and Fish Ladder looking Downstream (October 2023).

Photograph 4. Left Bank Side Channel Leakage Through Riprap and Grout (October 2023).

Photograph 5. Drop Structure 1 Wave Shaper looking Upstream (October 2023).

Photograph 6. Drop Structure 1 Sluiceway looking Upstream (October 2023).

Photograph 7. New Obermeyer Weir Location Downstream of Wave Shaper looking Downstream (October 2023).

Photograph 8. New Obermeyer Weir Location Downstream of Wave Shaper looking Upstream (October 2023).

Photograph 9. Temporary Diversion Pipe Inlet above Drop Structure 1 (October 2023).

Photograph 10. Temporary Diversion Pipe Outlet to Boise River below Drop Structure 3 (October 2023).

PARKS AND RECREATION DEPARTMENT
MAYOR: Lauren McLean | DIRECTOR: Doug Holloway

MEMO

TO: Cass Jones, Stream Channel Protection Program, Idaho Department of Water Resources

FROM: Sara Arkle, Parks Superintendent

CC: Mort McMillen, McMillen Corporation

Darrel Early, Deputy City Attorney, Boise City Attorney's Office

DATE: 12/15/2023

RE: Boise Whitewater Park Phase II Modifications – IDWR Response

The following memo is submitted for your consideration during the processing of the Joint Application for Permits for modifications to the Boise Whitewater Park Phase II which was approved under permit #S63-20701. The information presented in this memo is intended to resolve questions raised during the meeting held on December 5, 2023 regarding future plans for downstream passage by recreational users of the river.

Background

In 2019, an in-river recreational feature was constructed associated with improvements to the Farmer's Union diversion adjacent to Esther Simplot Park. Unfortunately, the waveshaper recreational feature has not performed according to expectations and the City has not issued a certificate of completion for the structure. The City has been working with the engineering firm under contract to address operational challenges with the waveshaper and the team is ready to modify the structures to improve the function of the recreational feature and user experience. These modifications are necessary to create a consistent and reliable in-river wave feature and to address known hazards. In addition, the modifications must be completed during the winter non-irrigation season to ensure water delivery commitments are met to Farmer's Union Irrigation District.

Resolution of concerns regarding downstream passage for the upcoming 2024 floating season is dependent upon timely issuance of a stream channel alteration permit so that construction of the modifications can be completed the 2023-2024 winter non-irrigation season.

Actions Relating to Downstream Passage:

As discussed in the December informational meeting, during the 2020-2023 floating seasons, instability of the recreational wave feature at Drop Structure 1 (DS1) in the

Phase II section of the park required the City of Boise to close the wave feature except for monitored sessions.

During the 2023 floating season, recreational floaters seeking to pass DS1, were instructed by signage upstream of DS1 and information on the Boise City Parks and Recreation Department website to portage around DS1. This determination was made out of an abundance of caution and based on the observations of our wave technicians and the experience of users. In addition, throughout the 2020 and 2023 floating seasons, the tuber bypass channel was largely operational and could serve as an option for through floaters. There were times however, during monitored sessions, when low flows in the river required the tuber bypass to be closed to maintain wave shape and performance while still meeting irrigation demand in the Farmers Union Canal diversion. Thus, for the majority of the 2020-2023 floating seasons, recreational floaters had two options for passage of DS1.

A. The tuber bypass channel
B. Portage

Commercial recreational operators on the river were advised to use their judgment on which of these options to select.

To protect against possible injury or loss of life due to a potentially unstable wave, the DS1 wave feature was closed to all users other than during monitored sessions and the log boom was deployed in a manner different than originally permitted to discourage any downstream passage of recreational users of the river through the wave feature.

As discussed during the December 5, 2023 meeting, through the current Joint Application for Permits submittal, the engineering firm under contract is working with the City to resolve the wave stability issues with the DS1, wave feature. And, presuming the modifications to the wave feature perform as designed, it is the intention of the City to complete the construction and move the log boom back to its originally permitted position. There, it will serve its intended purpose to deflect debris away from the Farmer's Union Canal Diversion Trash Rack and leave an unobstructed pathway through the wave feature, in addition to the adjacent tuber bypass.

In other words, if the modifications are successful, recreational river users will have three options for downstream passage of the DS1 wave feature during the 2024 floating season and beyond.

A. The tuber bypass channel
B. Transiting through the wave feature
C. Portage

Utilization of these alternatives will be left to the judgment of the recreational user of the river as governed by U.S. Coast Guard Rules and proper boating etiquette.

Signage associated with the Boise Whitewater Park will be modified to conform to the new passage configuration and inform boaters approaching the whitewater park of their options.

Should issuance of the permit be delayed so that construction is not possible during the 2023/2024 winter season, or should the modifications proposed in the permit application do not adequately resolve safety concerns and monitored sessions are still required, the City will have little choice but to continue with the strategies deployed in the 2020-2023 seasons for safety reasons. In that case the City will seek emergency approval from IDWR pursuant to IDAPA 37.03.07.050 for the continued deployment of the log boom to discourage downstream passage through the wave feature while still allowing for downstream passage by either the tuber bypass or portage.

McMillen

Technical Memorandum			
To:	Sara Arkle, City of Boise Jim Purdy, City of Boise	Project:	City of Boise Phase II Water Park – Drop Structure No. 1 Modifications
From:	Morton D. McMillen, P.E. McMillen Inc. 1471 Shoreline Dr STE 100 Boise, ID 83702	cc:	File
Prepared by:	Steven Klawitter	Job No.:	21-106
Date:	December 15, 2023		
Subject:	Drop Structure No. 1 - Hydraulic Analysis		

Revision Log

Revision No.	Date	Revision Description
0	September 27, 2023	75% Design
1	December 15, 2023	Revised based on City review

1.0 Introduction

This Technical Memorandum (TM) presents the results of hydraulic analyses related to proposed structure modifications for the new J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase II (Project).

1.1 Purpose

The purpose of this TM is to present results of hydraulic analyses based on the proposed scope of modification to the Project which includes enhancements of the main spillway, modifications to the existing waveshaper to improve tailwater control and hydraulic jump stability, modifications to the controls vault, relocation of stilling wells, and miscellaneous updates to project features that address current challenges associated with the operation of the Project. Most relevant to the hydraulic analyses are the enhancements of the main spillway and modifications to the existing waveshaper.

2.0 Summary of Proposed Modifications

The proposed modifications to the Project include the following elements which have direct impact on the hydraulic design and performance of the structure. These modifications were developed based on the operational challenges identified and summarized under the previous TM Drop 1 Structure Modifications Scope of Work dated June 6, 2023 (McMillen 2023).

2.1 Spillway Modifications

McMillen proposes to split the current 20-foot-wide Gate 5 and Gate 6 to create four 10-foot-wide gates. A sketch of this concept is shown in Figure 1. This will provide increased flexibility for operations of the main spillway and provide flexibility in a variety of flow management situations as well as the following benefits:

- The majority of low flow scenarios flow could be managed with only one or two 10-foot-wide spillway gates particularly when the waveshaper is not in operation.
- Boaters who miss the bypass channel could pass down the main channel and be passed through the Drop 1 spillway with high velocity.
- Ability to shape flow to the center of the river channel using four smaller gates by having one or two center gates (Gate 6 and Gate 7) down and Gate 5 or Gate 8 partially down.

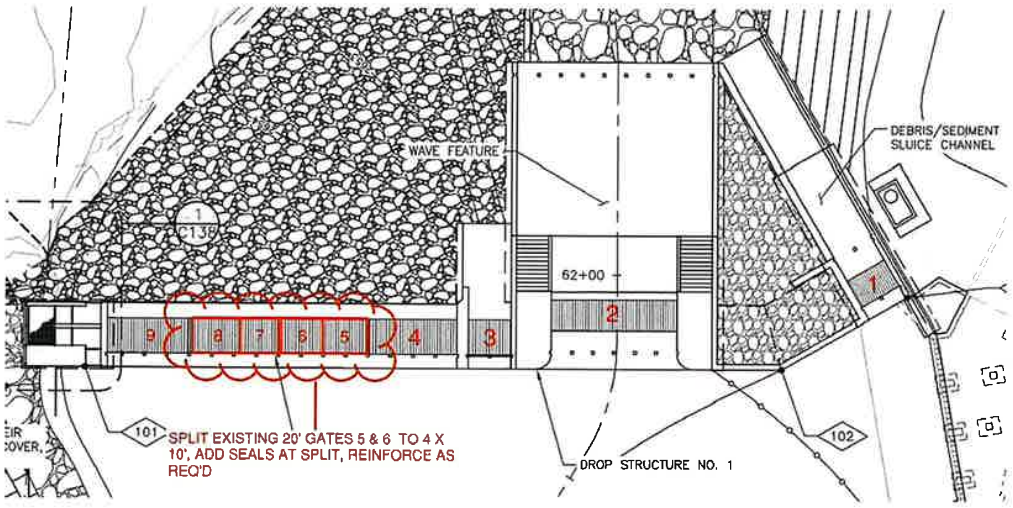


Figure 1 – Proposed Spillway Modifications

The work required to complete the modifications to this feature will include:

- Physical modification of the existing Obermeyer gates. McMillen has confirmed with Obermeyer that it is feasible and the best approach to modify the existing gates.
- Add new piping and electrical cable in the existing routing path from the control building to the new gates.

- Add additional inclinometers to the new gates to allow independent control of all gates.
- Add two gate control zones to the existing Obermeyer controls gates including new valving, piping and PLC programming.
- Dewatering of the drop structure to support construction.

In addition to the structural modifications of the spillway, a 5-feet-deep plunge pool will be excavated downstream of the new 10-feet-wide gates to provide better hydraulic conditions for rafters or tubers that may pass over the modified spillway gate section.

2.2 Waveshaper Modifications

Waveshaper modifications will be focused on downstream control and making the waveshaper less sensitive to changes in the overall river flowrate.

Through an alternatives analysis process, McMillen proposes constructing an adjustable "flip-lip" type feature on a new concrete slab downstream of the waveshaper gate for fine tuning of the tailwater. This feature would be adjustable from the riverbank without dewatering. This structure would consist of a new fully submerged Obermeyer gate downstream of the existing waveshaper structure. In the raised position, the gate would provide additional tailwater depth within the waveshaper feature to improve the operational range. During high river flows, the gate will be lowered to maximize the hydraulic capacity of the main river channel. The new gate would be 4-feet-high when fully raised and 40-feet-wide. The crest of the new Obermeyer gate when fully raised would be approximately 20 feet downstream of the end of the existing concrete waveshaper slab. Additional details related to the design of the new Obermeyer structure are provided under separate cover in the detailed design drawings.

3.0 Summary of Hydraulic Analyses

The following sections discuss the hydraulic analyses performed to assess the modifications proposed to the spillway and waveshaper gates. In general, the proposed modifications are intended to provide increased operational flexibility to adjust drop structure gate positions. Optimal gate positions for all gates should be selected during startup and testing after the modifications have been completed.

3.1 Spillway Gate Empirical Analysis

To assess the changes to the spillway hydraulics following the modification of the two central 20-feet-wide gates into four 10-feet-wide gates, McMillen performed an empirical analysis using a traditional weir equation. A critical assumption included in this analysis is the weir discharge coefficient. The weir coefficient selected for this analysis was based on a relationship of depth over the gate and discharge rate developed for the waveshaper gate. This relationship was estimated based on measurements manually collected at the site in 2019. The developed weir coefficients generally vary between 3.2 and 3.5 for the flow rates and depths evaluated. It is assumed that weir coefficient relationship developed for the waveshaper gate would be similar to that of the spillway gates. The rating curves developed for a 10-foot gate and 20-foot gate are shown in Figure 2.

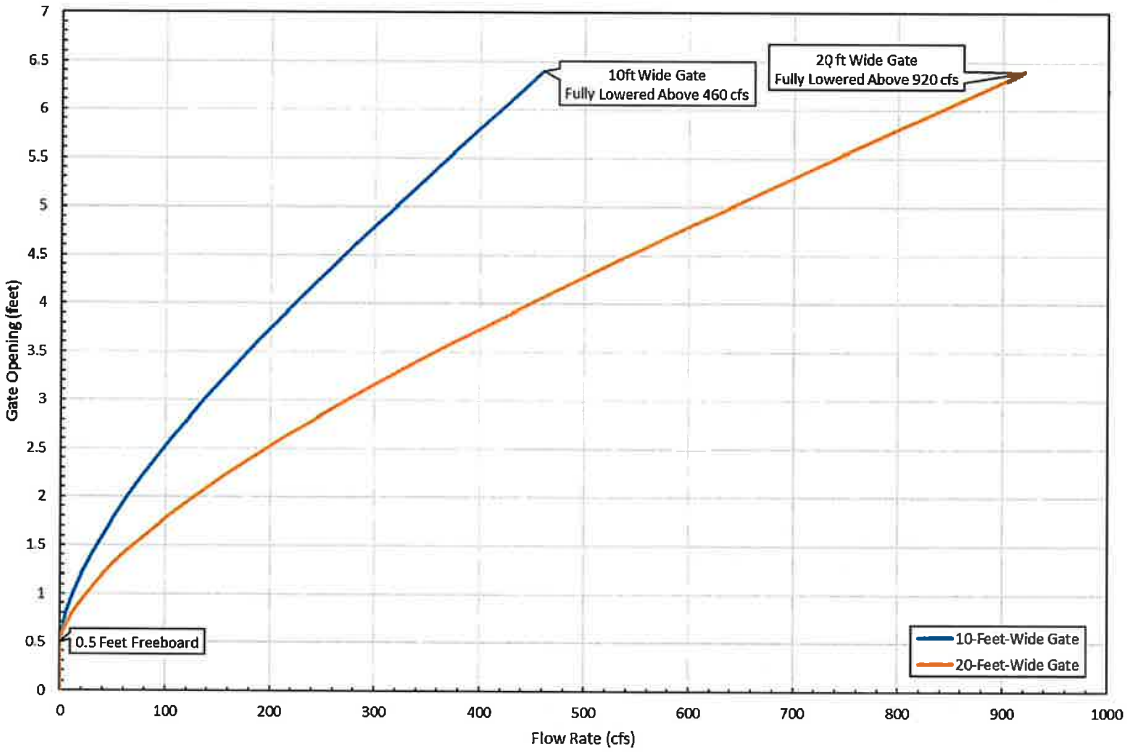


Figure 2 – Comparison of Rating Curves for Singular 10-feet-wide vs 20-feet-wide Gate

As can be seen in this figure, the capacity of a singular 10-feet-wide gate is half that of a 20-feet-wide gate. This leads to a capacity of approximately 460 cfs when a 10-feet-wide gate is fully opened as compared to 920 cfs for a 20-feet-wide gate. Based on these developed rating curves, a full operational curve for all of the spillway gates can be estimated as shown in Figure 3.

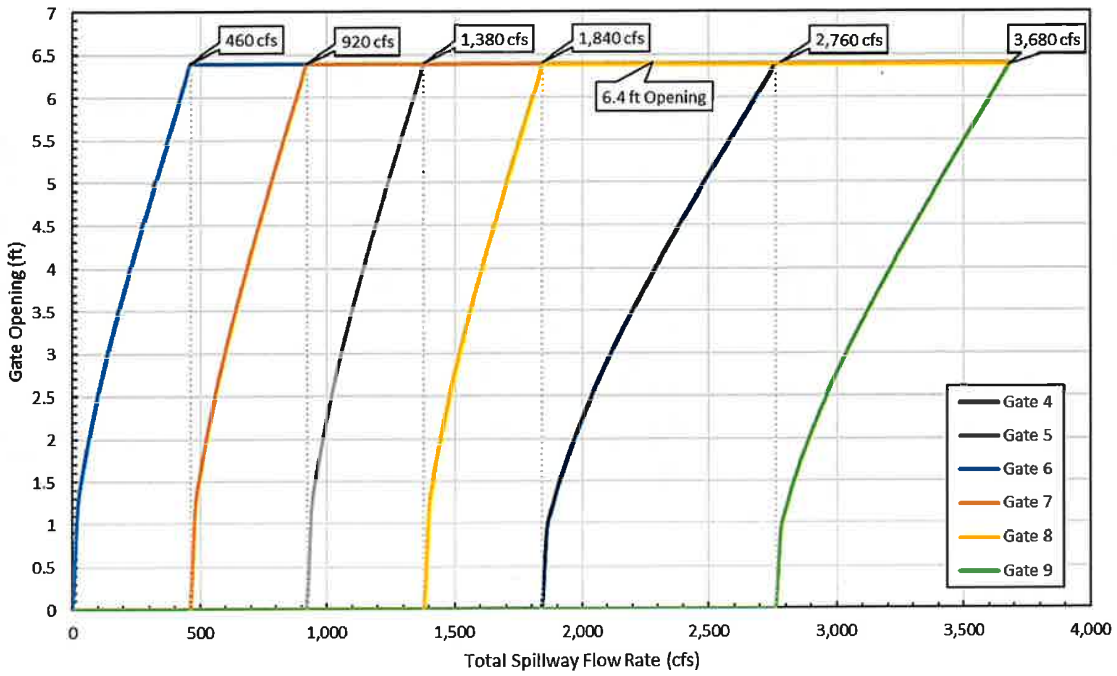


Figure 3 – Overall Spillway Operational Rating Curve

It can be seen in this figure that the modification of two of the 20-feet-wide gates into 10-feet-wide gates provides significantly more operational flexibility.

3.2 Hydraulic Model Setup

To further assess the hydraulics of the drop structure and the proposed modifications, McMillen used computational fluid dynamics (CFD) modeling. The use of a CFD model was instrumental in assessing the hydraulics of the structure due to the dynamic wave hydraulics and complex gate structures. CFD simulations were performed using FLOW3D software (version 22.2.0.17). The CFD model was developed to include a portion of the river upstream of the drop structure, the sluice, waveshaper, bypass gate, spillway, non-overflow sections, and a portion of the river downstream past drop structure 3. The model geometry at drop structure 1 for existing conditions is shown in Figure 4.

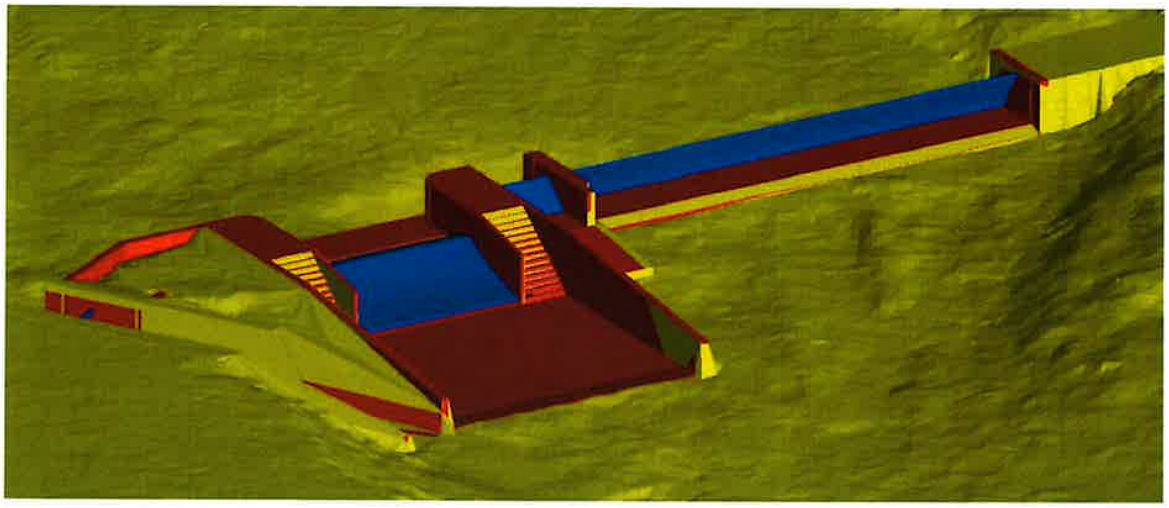


Figure 4 – CFD Model Geometry

Some additional modifications were made to the geometry to remove irregularities from the surveyed surface that did not appropriately represent the as-built conditions of the riverbed. The model domain extended from approximately 60 feet upstream of drop structure 1 to approximately 50 feet downstream of drop structure 3. These extents were selected to place the boundary conditions far enough away from drop structure 1 to not influence the results while also trying to maintain a small and computationally efficient model domain. The model domain was developed using mesh spacings from 0.25 to 1 foot. The smaller mesh spacings were used near the drop structure features to better capture the shallow flow depths as water passes over the gates. The model geometries and mesh were used to develop the mesh-generated Fractional Area Volume Obstacle Representation (FAVOR) geometry in the CFD model. The FAVOR method is used by FLOW3D to represent geometry by smoothly blocking out fractional portions of the grid cells filled with the solid geometry. A comparison of the original CAD geometry and the FAVOR generated geometry at the left side of the spillway approach is shown in Figure 5.

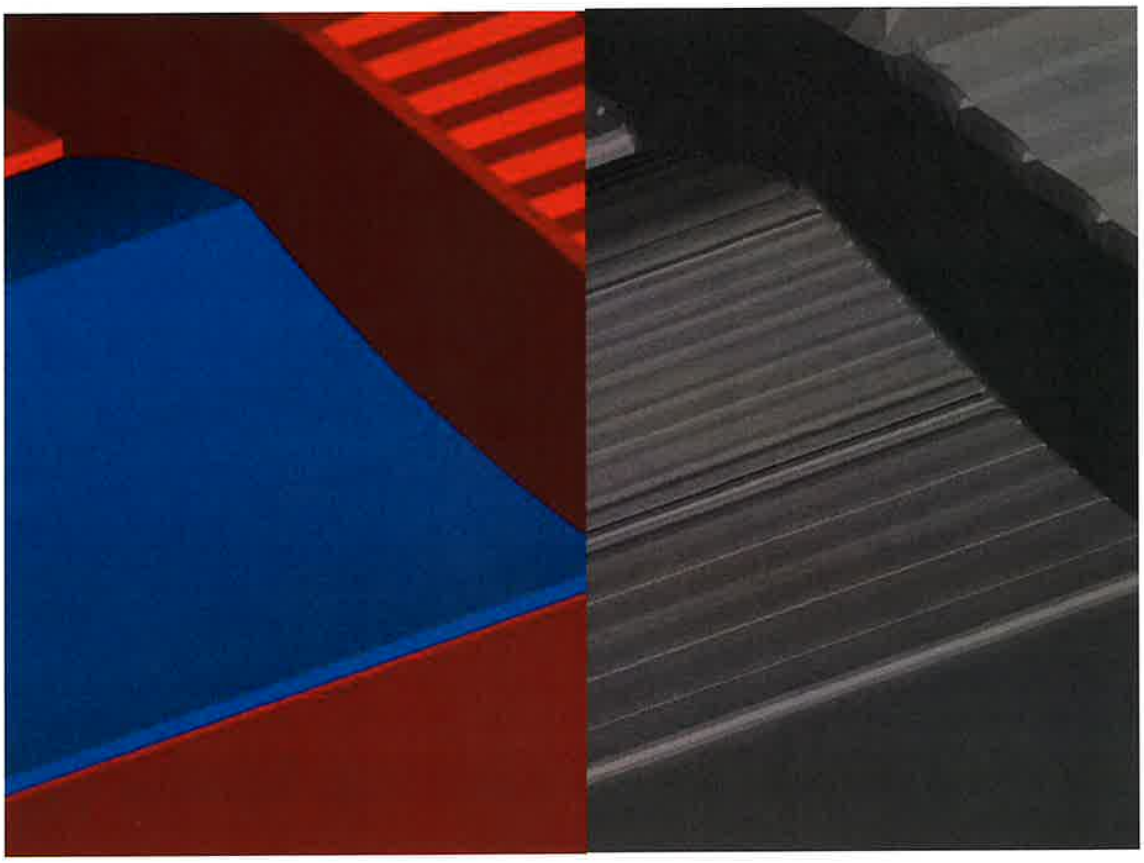


Figure 5 – Comparison of CAD and FAVOR Geometries

Within the FLOW3D model, parameters were selected to appropriately model the proposed waveshaper conditions. The FLOW3D model offers six different options for modeling turbulence. For this study, the k-ε Renormalization Group (RNG) model was used. Flow Science (the developers of FLOW3D) explains that this model is "known to describe low intensity turbulence flows and flows having strong shear regions more accurately". Additionally, the Immersed Boundary Method (IBM) option was selected. This option is beneficial for evaluating force predictions near walls. Downstream of the proposed Obermeyer structure the shallow water modeling option within FLOW3d was used. This allows the model domain to expand significantly but utilizes simplified depth-averaged calculations to improve computation efficiency where high resolution results are non-critical. The CFD model utilizes a variable timestep that is dynamically computed based on convergence criteria set within the program. This allows the timestep to vary depending on the flow regime within the model domain allowing for a stable run without sacrificing runtime.

At the downstream boundary condition a tailwater rating curve was used. This curve was based on measurements taken in 2019 downstream of drop structure 3. The measurements extended up to a flowrate of 6,560 cfs, above which the curve was linearly extrapolated. At smaller river flowrate of less than about 1,800 cfs the tailwater rating curve was modified to account for diversions through the FUDC bypass. At large flow rates there are significant impacts from

submergence at each drop structure and backwatering through the full river reach. The tailwater rating curve used for these analyses is shown in Figure 6.

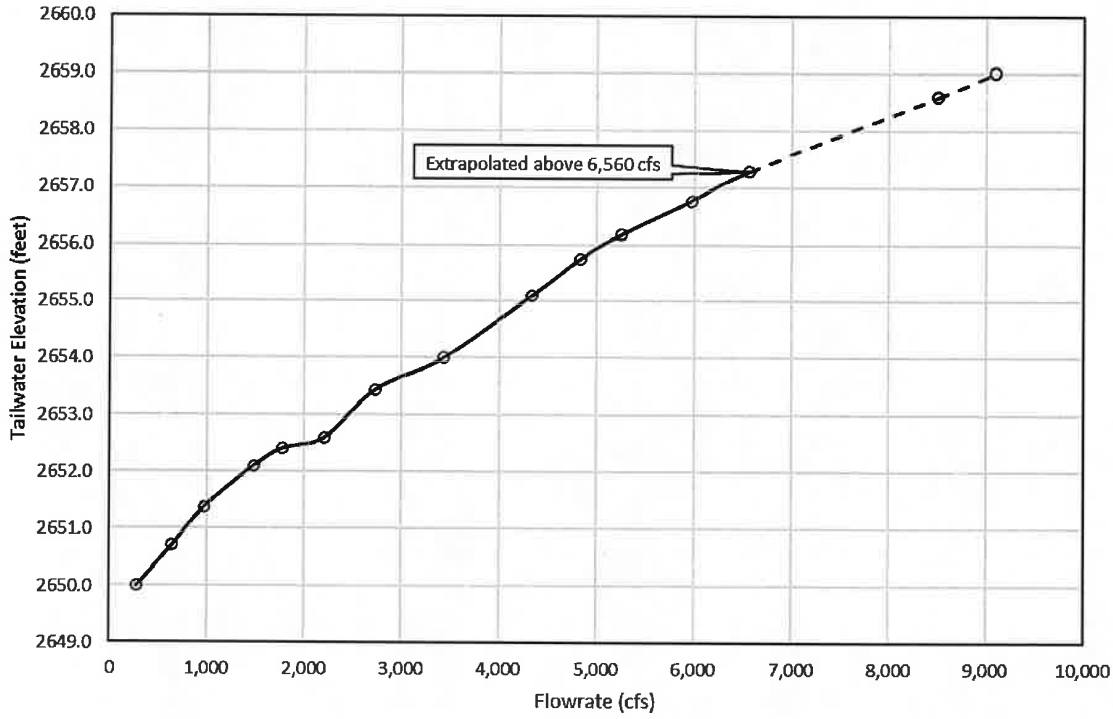


Figure 6 – Tailwater Rating Curve

3.3 Hydraulic Model Results

3.3.1 Waveshaper Gate

Within the FLOW3D model multiple hydraulic scenarios were prepared to evaluate the existing and proposed hydraulics of drop structure 1. These scenarios are summarized in Table 1.

Table 1 – Model Scenario Summary

Scenario No.	Configuration	Drop Structure Flow Rate[1] and Open Gates	Objectives
1	Existing Conditions	500 cfs @ Waveshaper and Bypass	• Confirm undesirable hydraulics at low flow rates • Establish baseline for comparison to proposed conditions
2	Existing Conditions	1,400 cfs @ Spillway, Waveshaper, and Bypass	• Establish baseline for comparison to proposed conditions at an intermediate flow rate
3	Existing Conditions	8,000 cfs @ All Gates, Bankfull	• Establish baseline for comparison to proposed conditions at a high flow rate
4	Proposed Conditions	500 cfs @ Waveshaper and Bypass	• Evaluate wave hydraulics at low end of operational range • Confirm improved hydraulic jump conditions
5	Proposed Conditions	1,400 cfs @ Spillway, Waveshaper, and Bypass	• Evaluate operations of new Obermeyer gate at an intermediate flow rate
6	Proposed Conditions	830 cfs @ Waveshaper and Bypass	• Evaluate wave hydraulics at upper end of operational range
7	Proposed Conditions	7,950 cfs @ All Gates, Bankfull	• Evaluate impacts on overall river water surface and flow regime at a high flow rate

1. Flow rates indicated are over drop structure 1 and do not account for potential diversions through the FUDC bypass or additional flows from Esther Simplot Park which includes Sand Creek.

Except for scenarios 3 and 7, all scenarios were performed with the forebay at El. 2657.0 which has previously been established as beyond the upper bound of the original waveshaper design[1]. Within these scenarios, gate openings were modified to match the targeted flowrates and a discharge of approximately 40 cfs is included at the bypass gate. For scenarios 3 and 7, the

[1] Previous design iterations by McLaughlin Whitewater included flows down to 300 cfs with a forebay of EL 2657.0 which is a challenging set of criteria for a wide gate for which the original waveshaper gate was not designed for. Per TM006 paragraph 2.3.2 the waveshaper design is designed for 700-1200 cfs. In practice the actual usable range with modification will likely allow for 500-1200 cfs over the waveshaper with a higher than original forebay of EL. 2657.0.

forebay elevation model boundary condition was held at the bankfull capacity (approximately El. 2660.0) with all gates fully lowered and the resulting river flow rates were measured.

3.3.1.1 Scenario 1 – Existing Conditions 500 cfs at Waveshaper

Through discussions with the City, it was established that the waveshaper does not produce desirable hydraulic conditions at low flows. This was exhibited by the CFD model which showed similarly unstable wave operations at low flows. The depth-averaged velocity regime for this scenario is shown in Figure 7.

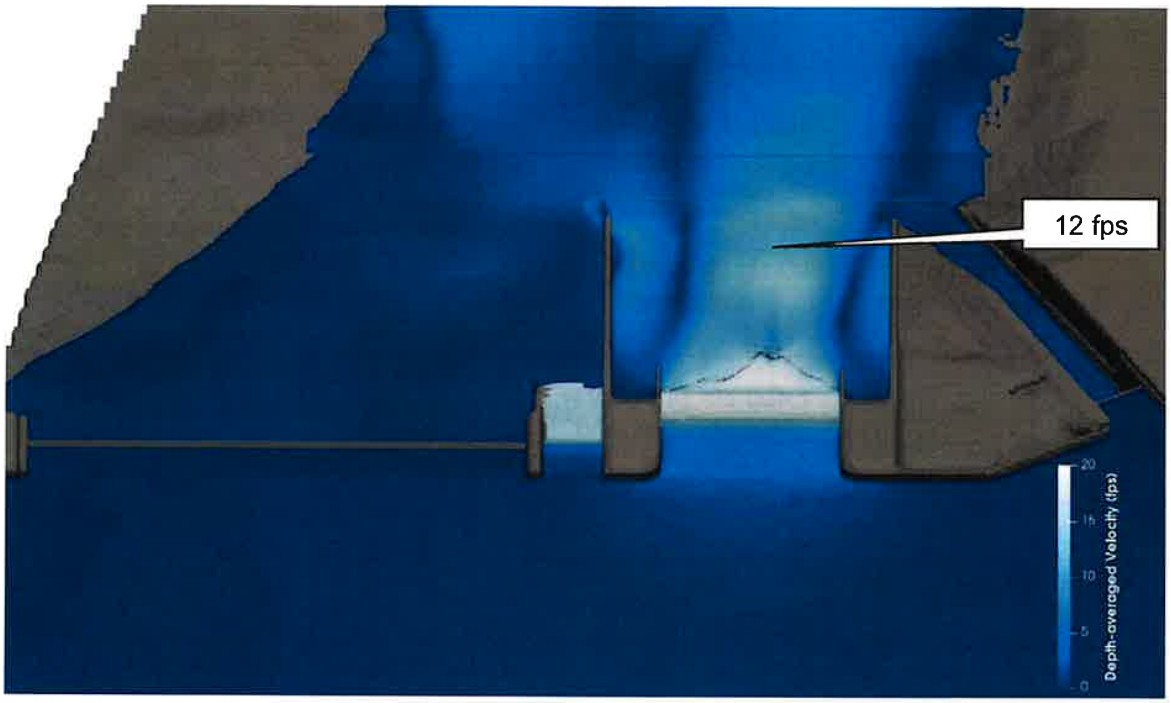


Figure 7 – Depth Averaged Velocities for Scenario 1 (Existing Conditions, 500 cfs)

As can be seen in this figure, a hydraulic jump is not well formed over the toe of the waveshaper gate. This agrees with general observations at the structure. Further, it can be seen that the majority of flows pass uniformly downstream towards drop structure 2 after exiting the waveshaper structure. This is expected as the existing conditions generally have no obstructions in the channel immediately downstream of the waveshaper.

3.3.1.2 Scenario 2 – Existing Conditions 1,400 cfs at Waveshaper and Spillway

Under existing operations for drop structure 1, flows beyond the capacity of the waveshaper gate and bypass channel are passed through the spillway gates starting from the right (looking downstream, Gate 4). McMillen evaluated a scenario where flows are passed through the waveshaper gate, bypass channel, and spillway. In this scenario, the crest of Gate 4 was lowered to El. 2651.85. which is approximately 5.15 feet below the forebay elevation which resulted in a flow rate of approximately 750 cfs through the spillway. Additionally, the

waveshaper gate crest was lowered to El. 2653.2. The hydraulic capacity estimated by the CFD model for both the waveshaper and existing spillway gates is consistent with analyses performed during the initial drop structure design. An isometric of the depth-averaged velocities for scenario 2 is presented in Figure 8.

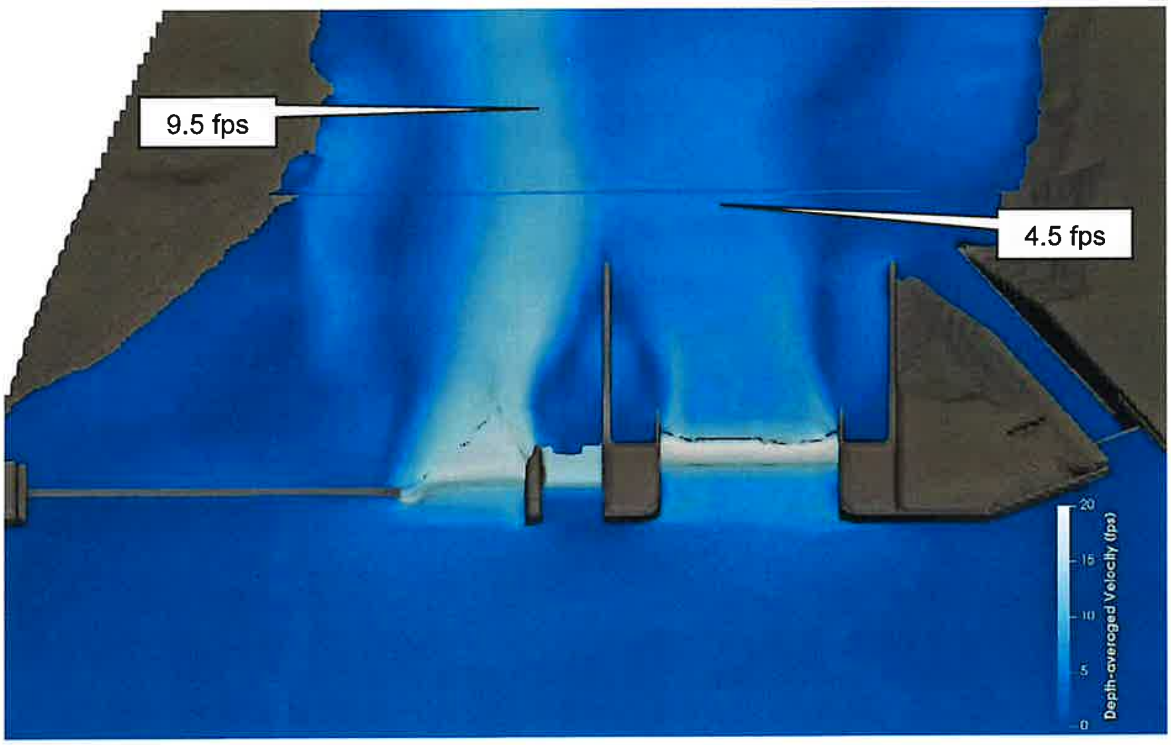


Figure 8 – Depth Averaged Velocities for Scenario 2 (Existing Conditions, 1,400 cfs)

As can be seen in this figure, the velocities downstream of Gate 4 are higher than at the waveshaper as a similar amount of flow to the waveshaper is passed through a narrower gate opening (20 ft vs 30 ft). At the waveshaper, a jump does form but exhibits some instability at the edges near the training walls.

3.3.1.3 Scenario 3 – Existing Conditions Bankfull Capacity

In the bankfull capacity scenario, all gates are fully lowered to pass their maximum capacity. Under existing conditions this bankfull capacity is estimated to be approximately 8,000 cfs. This capacity is significantly impacted by backwatering from the downstream structures and riverine hydraulics. This flowrate represents approximately 48% of the 100-year discharge (16,600 cfs). An isometric of the depth averaged velocities at drop structure 1 under a bankfull flow scenario is presented in Figure 9.

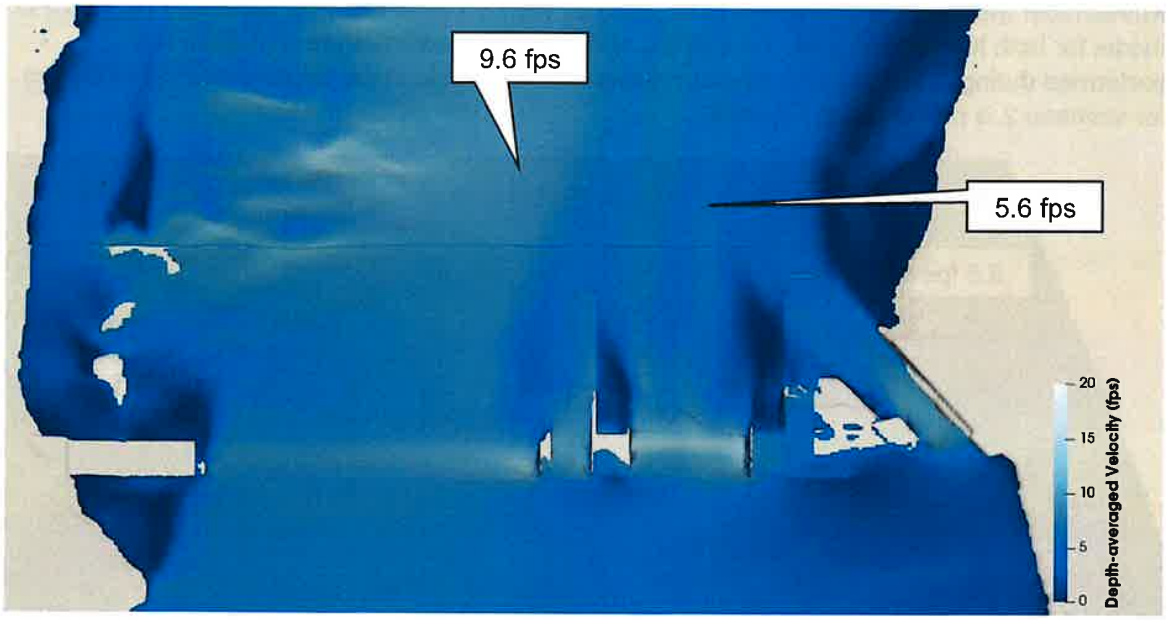


Figure 9 – Depth Averaged Velocities for Scenario 3 (Existing Conditions, Bankfull Capacity)

As can be seen in this figure there is significant overtopping of the portions of the drop structure between gates 1 and 2 (sluice and waveshaper). Velocities at the left side of the river downstream of the spillway are slightly higher than those at the right. This is similar to scenario 2 where more significant flows are passed through the spillway than the other gates. A submerged jump develops at the waveshaper gate but is well beyond the surfable range the structure is designed for.

This scenario was also developed to evaluate water surface elevations downstream of drop structure 1. A plan view of the water surface elevations in the reach between drop structure 1 and 2 is shown in Figure 10.

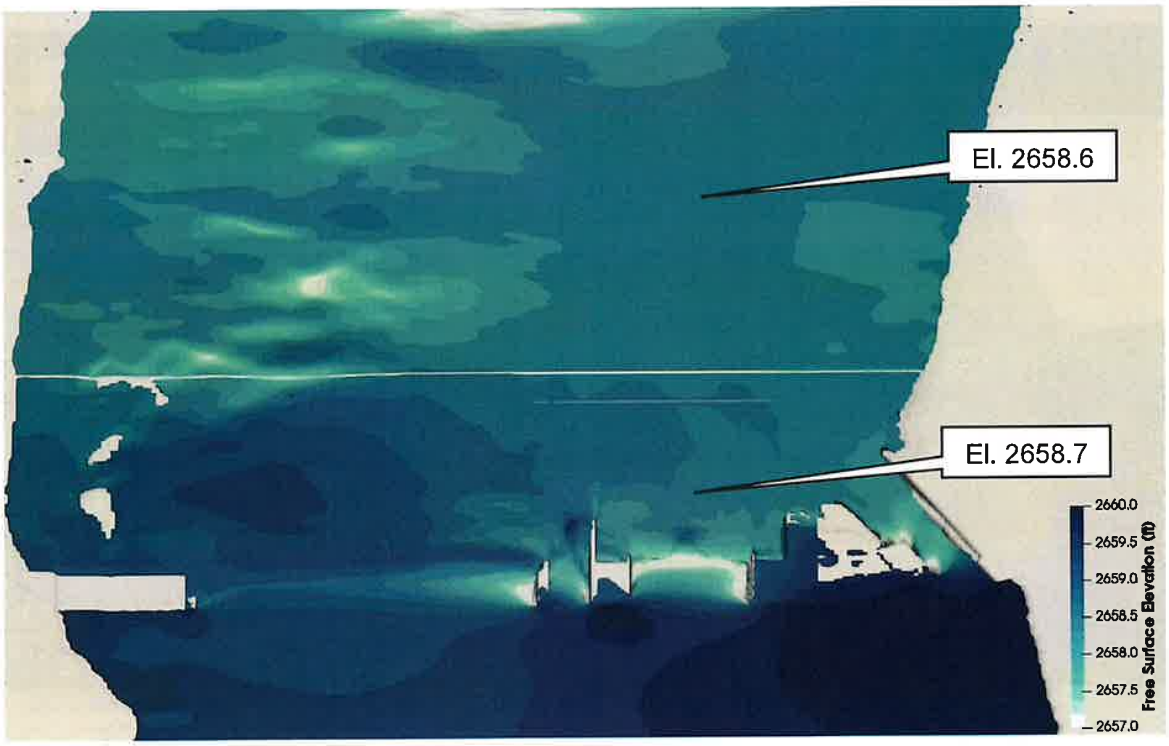


Figure 10 – Water Surface Elevations for Scenario 3 (Existing Conditions, Bankfull Capacity)

As can be seen in this figure the water surface elevations in this area are variable but within the main channel generally range from approximately El. 2658.7 to El. 2658.6. Some instability in the water surface elevations occurs at the left bank where flows would overtop the small island and enter the relatively undeveloped side channel.

3.3.1.4 Scenario 4 – Proposed Conditions 500 cfs at Waveshaper

Under proposed conditions at drop structure 1 the new Obermeyer gate downstream of the waveshaper would be fully raised during low flow conditions of 500 cfs represented by scenario 4. An isometric of the depth-averaged velocities at the waveshaper gate, bypass channel, and new Obermeyer is shown in Figure 11.

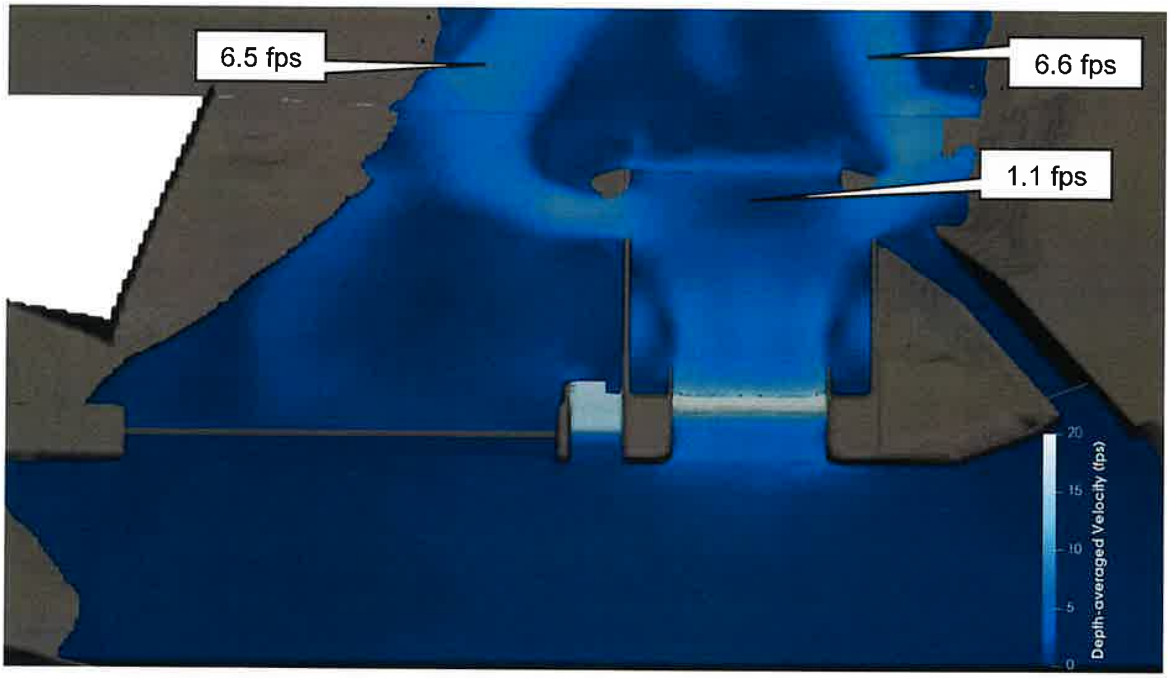


Figure 11 – Depth Averaged Velocities for Scenario 4 (Proposed Conditions, 500 cfs)

As can be seen in this figure, the CFD model indicates that the new Obermeyer is effective at producing a stable tailwater and hydraulic jump on the waveshaper gate. Velocities approaching the raised gate are approximately 1 fps and flow depths decrease to less than 6 inches over the crest of the new Obermeyer gate. The majority of flows are passed laterally towards the left and right banks around the Obermeyer structure. This can be seen in Figure 12 which shows the same depth-averaged velocities with flowpath streamlines overlaid. The streamlines exhibit how flows would split and pass over both the waveshaper and bypass gates.

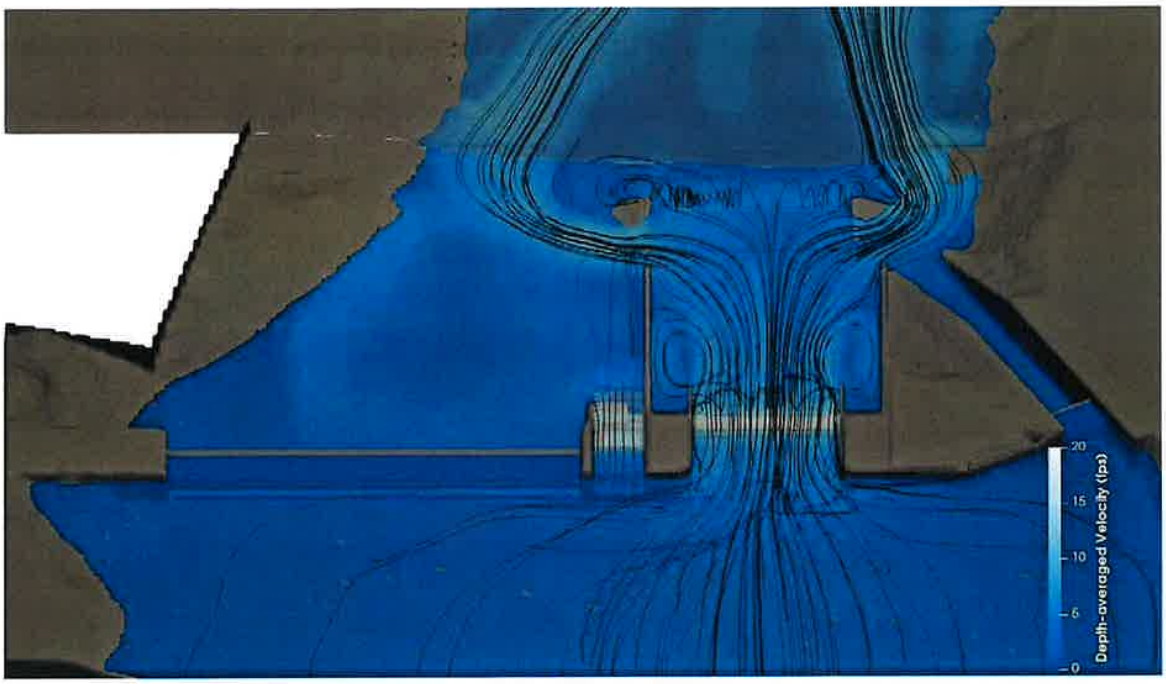


Figure 12 – Flowpath Streamlines for Scenario 4 (Proposed Conditions, 500 cfs)

The results shown in this figure also indicate that a small roller would form downstream of the new Obermeyer gate. However, this does not significantly draw from the flows that pass around the ends of the structure which represent the majority of the flows passing downstream. Detailed isometric views of the depth-averaged velocities and depths near the proposed Obermeyer structure are shown in Figure 13.

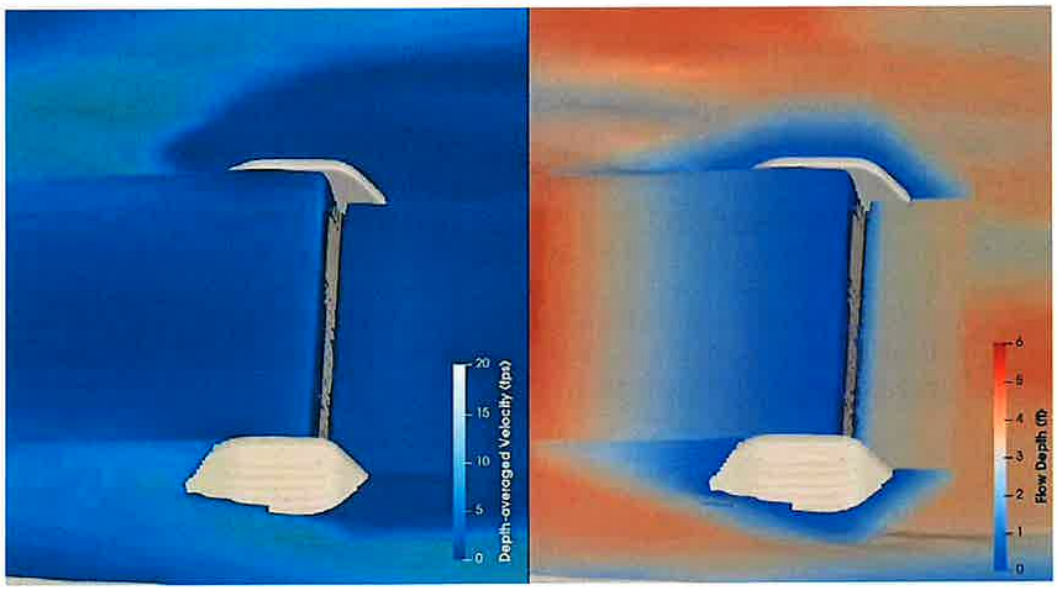


Figure 13 – Isometric Views of Proposed Obermeyer Structure (500 cfs)

3.3.1.5 Scenario 5 – Proposed Conditions 1,400 cfs at Waveshaper and Spillway

McMillen evaluated a scenario where flows are passed through the waveshaper gate, bypass channel, and spillway. In this scenario the new spillway gate numbers 6 and 7 could be lowered to pass approximately 750 cfs downstream. Similar to scenario 2, the waveshaper gate crest would be lowered to El. 2653.2 to pass approximately 650 cfs. The new Obermeyer gate was assumed to be in a fully raised position for this model scenario. An isometric view of the depth-averaged velocities at drop structure 1 for this scenario is shown in Figure 14.

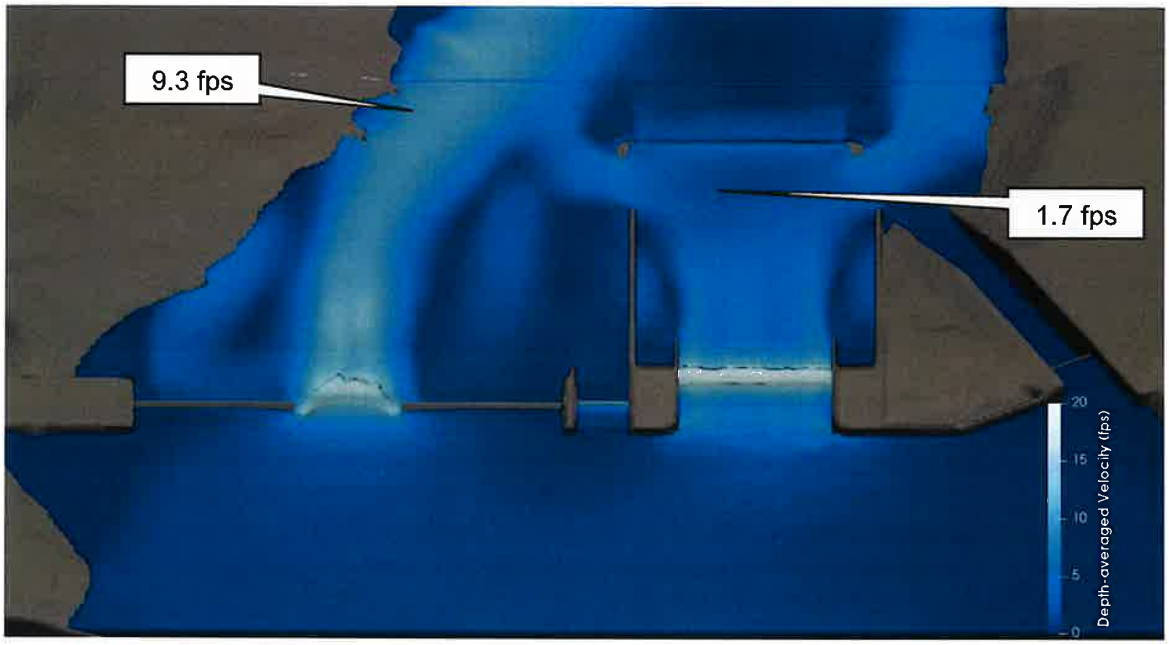


Figure 14 – Depth Averaged Velocities for Scenario 5 (Proposed Conditions, 1,400 cfs)

As can be seen in this figure, the flow regimes downstream of drop structure 1 are relatively similar to that of scenario 2. The most significant difference is that the spillway flows are shifted from the right end of the spillway structure to be more centrally located within the spillway. This leads to a reduction in mixing between flows from the waveshaper and the spillway portions. However, flows passing the new Obermeyer are still directed laterally around the new structure towards the left and right banks. A well developed jump forms at the waveshaper under these flow conditions. Velocities approaching the Obermeyer are approximately 1.7 fps, which is slightly higher than those of scenario 4. A similar flowpath streamline analysis was developed for this scenario and is shown in Figure 15.

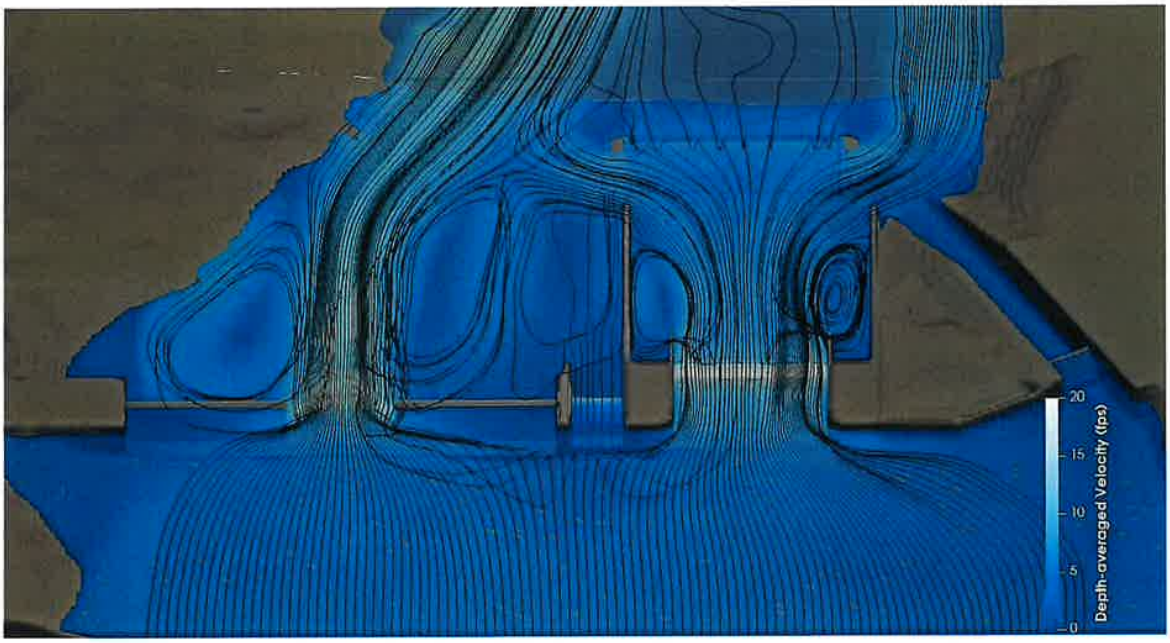


Figure 15 – Flowpath Streamlines for Scenario 5 (Proposed Conditions, 1,400 cfs)

Similar to the streamlines shown in Figure 12 for scenario 4, a small roller forms downstream of the new Obermeyer gate. However, this is largely limited to flows passing directly over the new gate structure. These flows passing over the new gate represent a larger portion of the flows than in scenario 4, however, they are still considerably less than the flows which pass around the structure abutments. To further evaluate the ability of the new Obermeyer gate to regulate tailwater elevations downstream of the waveshaper gate a cross section through the flow in this area is shown in Figure 16.

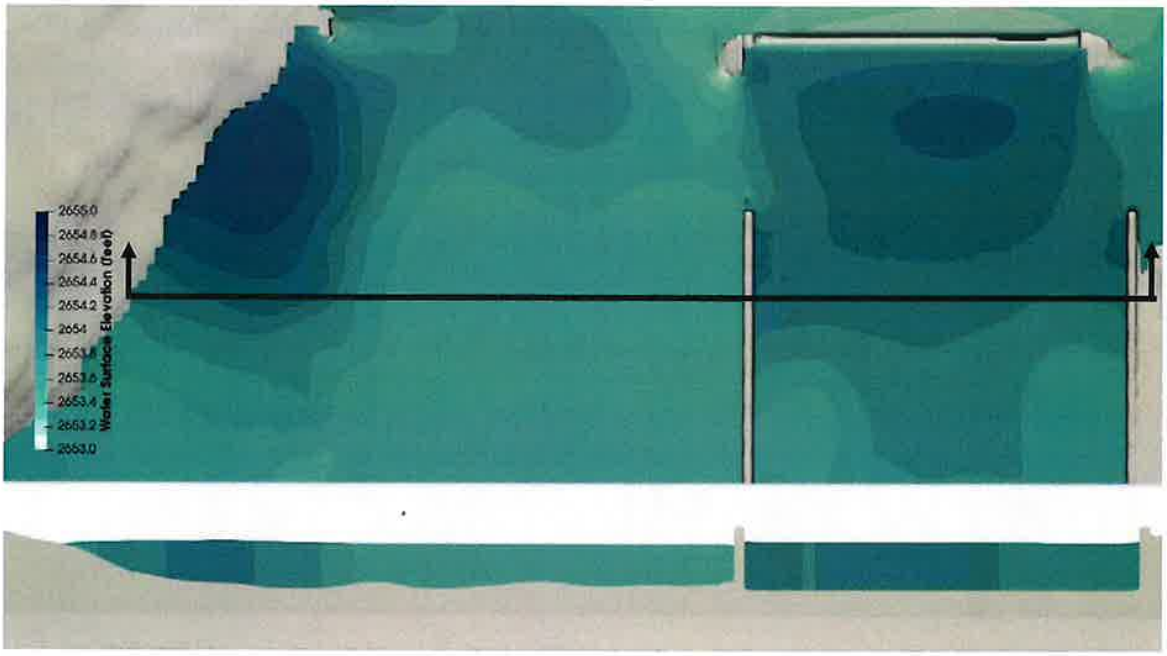


Figure 16 – Cross Section of Results of Scenario 5 (Proposed Conditions, 1,400 cfs)

As can be seen in this figure the new Obermeyer gate increases the tailwater elevation downstream of the waveshaper gate by approximately 0.5 feet when compared to the tailwater elevations downstream of the spillway. Additional increases in the tailwater elevation differential are observed when comparing points directly in front of the new Obermeyer to points downstream of the spillway gates.

3.3.1.6 Scenario 6 – Proposed Conditions 830 cfs at Waveshaper

McMillen evaluated a scenario where the waveshaper gate crest is fully lowered (El. 2652.1) and flows are passed only through the waveshaper gate and bypass channel. The resulting flow rate at the waveshaper in this scenario is approximately 830 cfs. With the waveshaper gate fully lowered the crest loses some discharge efficiency and begins to act more as a broad crested weir than sharp crested. The resulting back-calculated weir coefficient for the fully lowered waveshaper gate is approximately 2.6. This significantly reduced discharge coefficient is typical of shallow flow over weirs that are relatively long in the direction of flow. The new Obermeyer gate downstream of the waveshaper was assumed to be in a fully raised position for this model scenario. An isometric view of the depth-averaged velocities at drop structure 1 for this scenario is shown in Figure 17.

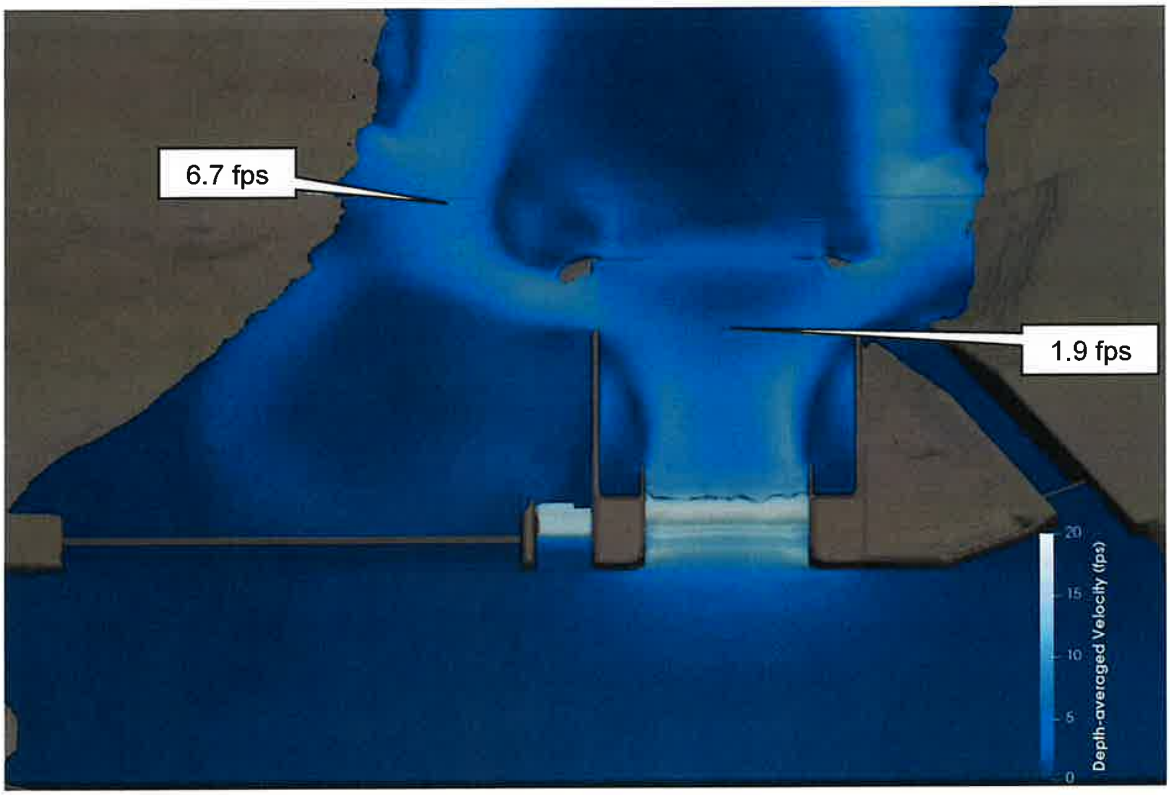


Figure 17 – Depth Averaged Velocities for Scenario 6 (Proposed Conditions, 830 cfs)

As can be seen in this figure, the flow regimes downstream of drop structure 1 are relatively similar to that of scenario 4. As anticipated, based on the larger flow rate, the depth-averaged velocities are slightly higher through the downstream reach. Velocities approaching the Obermeyer are approximately 1.9 fps, which is slightly higher than those of scenario 4. A similar flowpath streamline analysis was developed for this scenario and is shown in Figure 18.

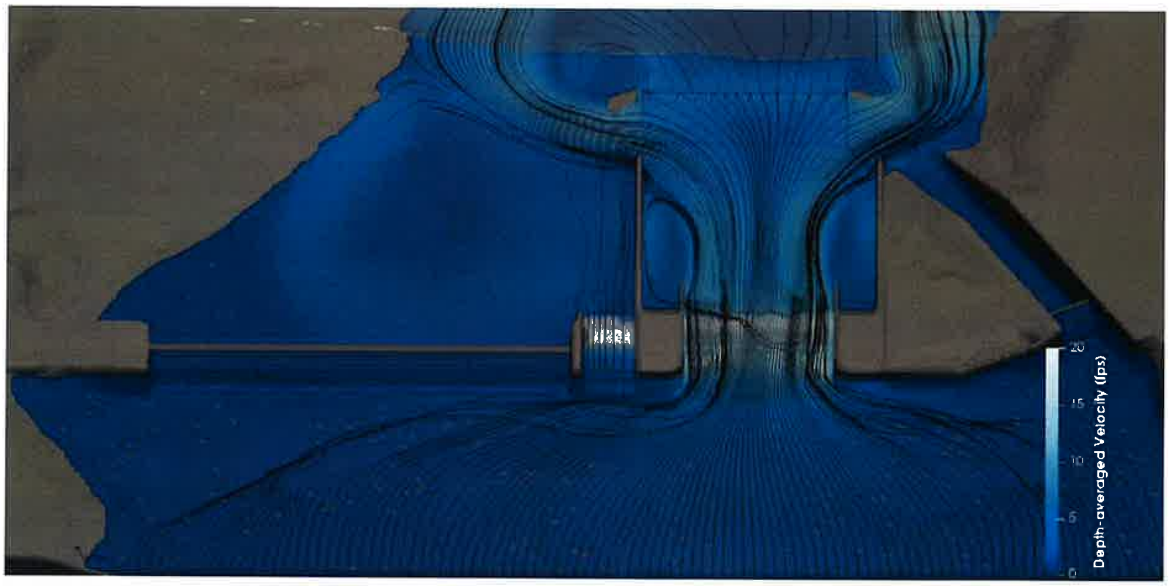


Figure 18 – Flowpath Streamlines for Scenario 6 (Proposed Conditions, 830 cfs)

Similar to the streamlines shown in Figure 12 for scenario 4, a small roller forms downstream of the new Obermeyer gate and a majority of flow passing over the waveshaper is diverted left of the new Obermeyer structure. To further evaluate the ability of the new Obermeyer gate to regulate tailwater elevations downstream of the waveshaper gate a cross section through the flow in this area is shown in Figure 19.

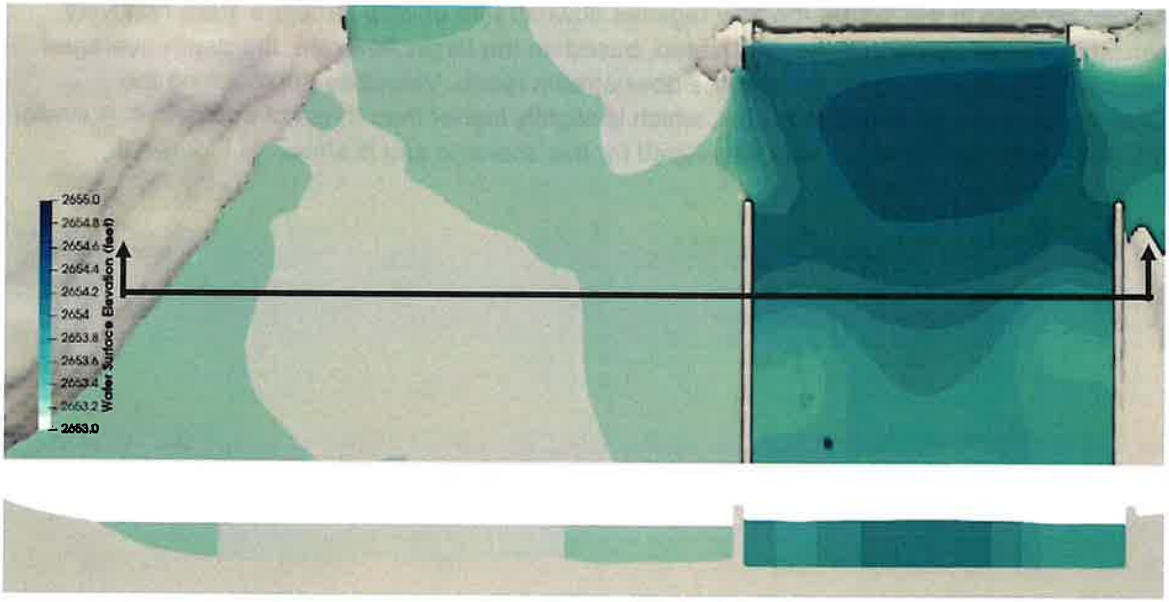


Figure 19 – Cross Section of Results of Scenario 6 (Proposed Conditions, 830 cfs)

As can be seen in this figure, the Obermeyer gate increases the tailwater elevation downstream of the waveshaper gate by approximately 1 foot when compared to the tailwater elevations downstream of the spillway. Additional increases in the tailwater elevation differential are observed when comparing points directly in front of the new Obermeyer to points downstream of the spillway gates.

3.3.1.7 Scenario 7 – Proposed Conditions Bankfull Capacity

In the bankfull capacity scenario, all gates are fully lowered to pass their maximum capacity in addition to the new Obermeyer proposed downstream. Under proposed conditions the bankfull capacity is estimated to be approximately 8,000 cfs which is equal to that of the existing conditions. An isometric of the depth-averaged velocities is shown in Figure 20.

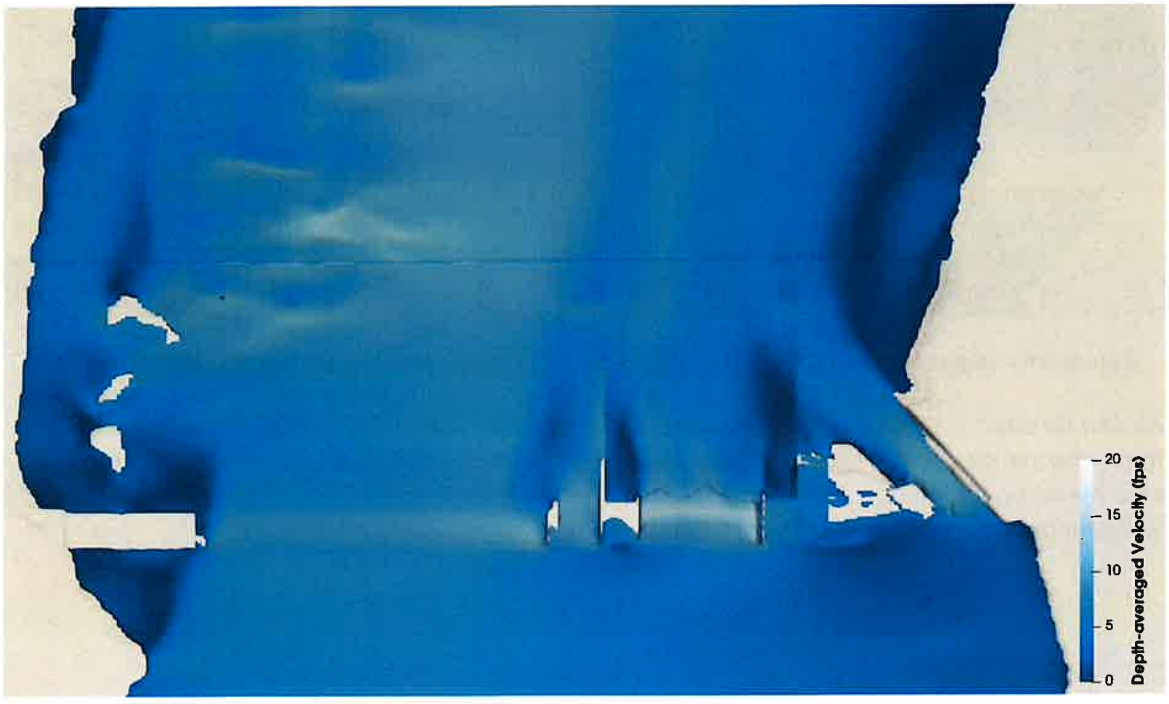


Figure 20 – Depth Averaged Velocities for Scenario 7 (Proposed Conditions, Bankfull Capacity)

Similar to the existing conditions there is significant overtopping of the portions of drop structure 1 between gates 1 and 2 (sluice and waveshaper). In general, the estimated velocity regime for the proposed conditions is only slightly different in localized areas when compared to that of the existing conditions.

It is also important to evaluate the water surface elevations under this scenario to compare to the existing conditions to understand the implications of the new Obermeyer structure on the no-net-rise requirement. A plan view of the water surface elevations within the reach between drop structure 1 and drop structure 2 is shown in Figure 21.

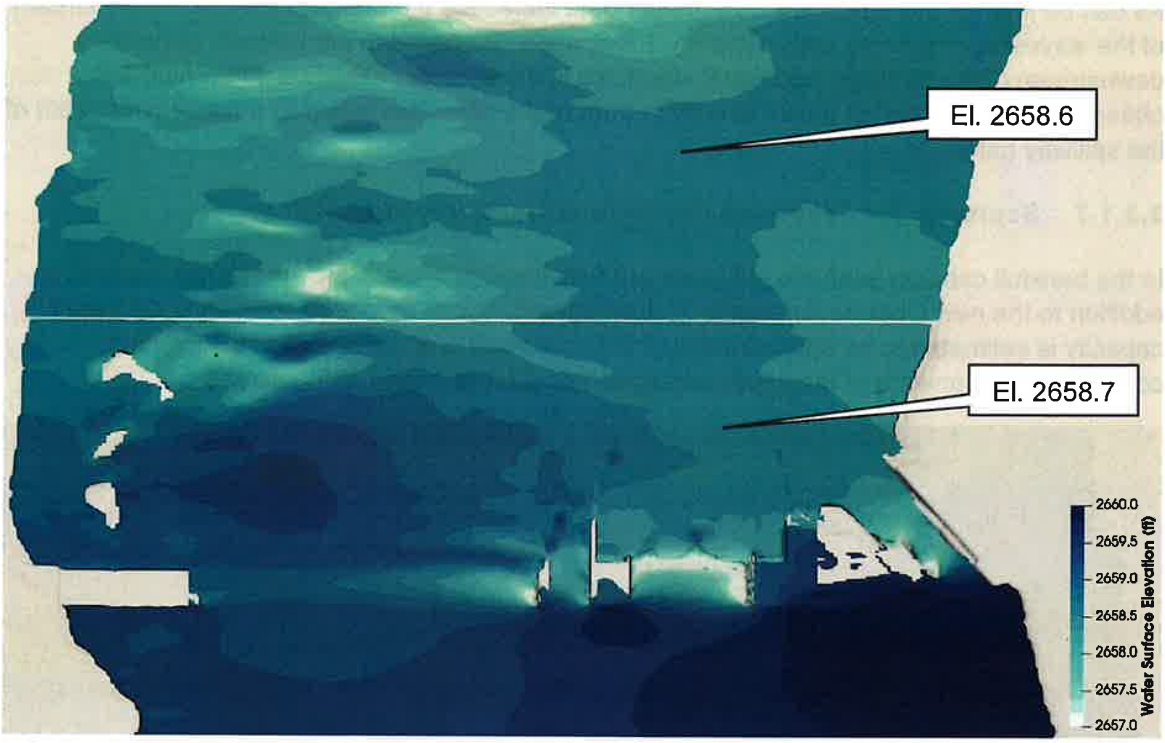


Figure 21 – Water Surface Elevations for Scenario 7 (Proposed Conditions, Bankfull Capacity)

As can be seen in this figure the water surface elevations in this area are variable but within the main channel generally range from approximately El. 2658.7 to El. 2658.6. Figure 22 shows a side-by-side comparison of the water surface elevations estimated for the existing conditions and proposed scenarios under bankfull conditions.

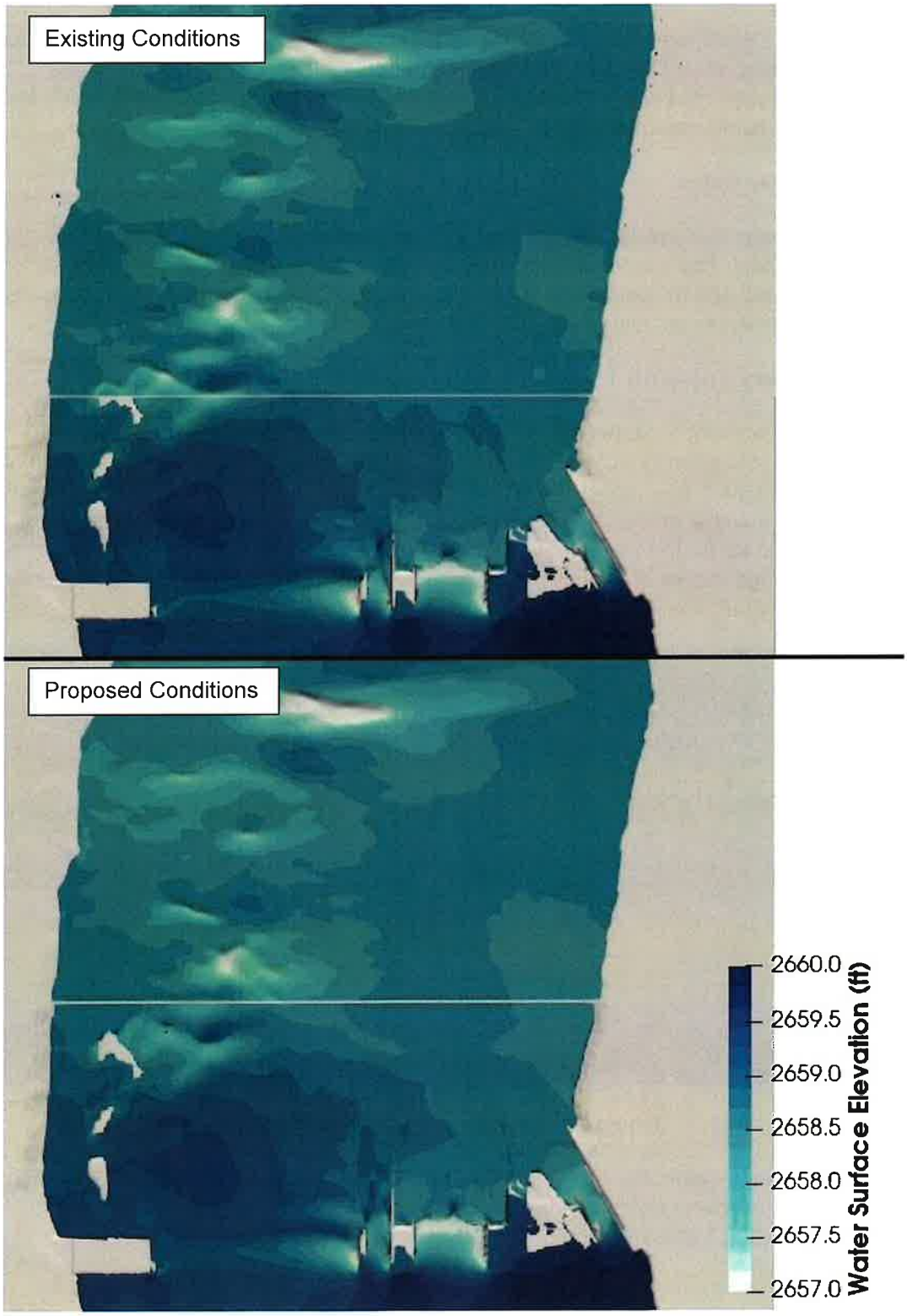


Figure 22 – Water Surface Elevations at Bankfull Capacity for Existing and Proposed Conditions

As can be seen in this figure, the water surface elevations downstream of drop structure 1 vary by less than 0.1 feet within the majority of the area of interest. Some slight variations are observed in localized areas which could be contributed to minor model instabilities which are inherent to the dynamic nature of CFD modeling.

3.3.2 Spillway Gates

The CFD model was also used to assess the hydraulic conditions of the modified spillway gates and new plunge pool. Two scenarios were specifically evaluated for the spillway gates: 1) New Gate 6 half lowered, and 2) Gate 6 fully lowered and Gates 5 and 7 half lowered. The results of these hydraulic analyses are discussed in the following sections.

3.3.2.1 Spillway Scenario 1 – Gate 6 Half Lowered

The first spillway scenario includes the crest of Gate 6 lowered to approximately El. 2654.3 which is equivalent to approximately half lowered. The results indicate that this gate would pass approximately 260 cfs in this configuration with the forebay at El. 2657.0. This is approximately 75 percent more than the empirically developed rating curve which indicates a discharge of approximately 150 cfs for this configuration. This can likely be attributed to the flows that pass over the left and right edges of the gate which are lower than the crest and are not accounted for in the empirical calculation. An isometric of the results of this scenario is shown in Figure 23.

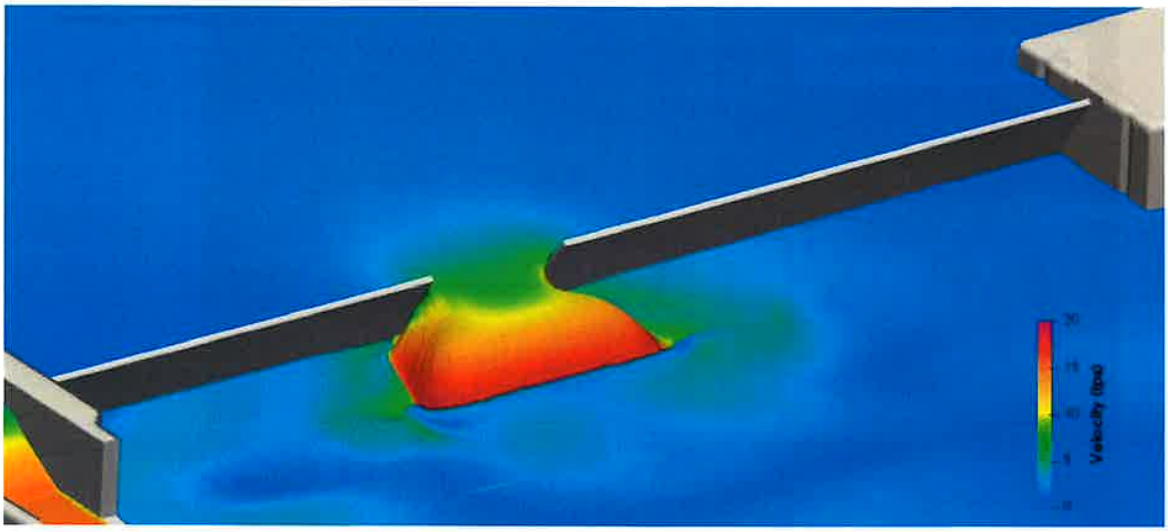


Figure 23 – Spillway Scenario 1 Isometric

As flows pass over the gate, the plunging nappe would impinge at the downstream end of the spillway slab into relatively shallow water. Velocities over the tip of the gate would reach approximately 18 fps. A cross section of the results is provided in Figure 24.

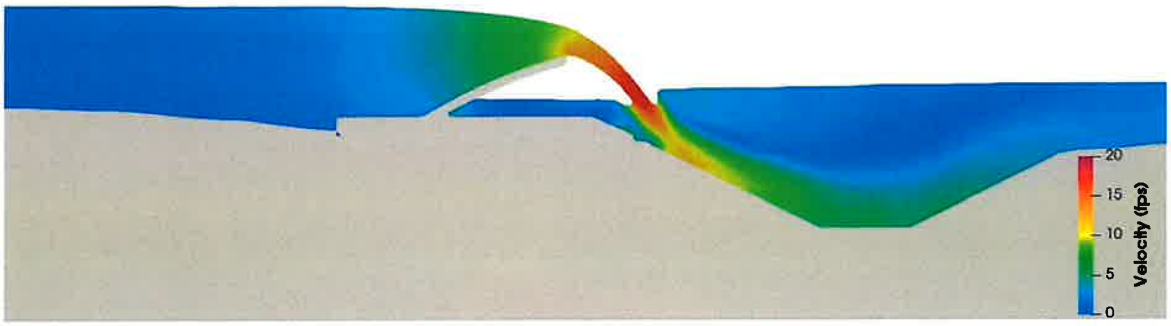


Figure 24 – Spillway Scenario 1 Cross Section

As can be seen in this figure, the velocities of the jet would be dissipated quickly but would generally be concentrated along the bottom of the plunge pool before rising to exit at the downstream end. Some slight backwards flow towards the gate would develop within the pool however velocities would be relatively low compared to the main flows directed downstream.

3.3.2.2 Spillway Scenario 2 – Gate 6 Fully and Gates 5 and 7 Half Lowered

The second spillway scenario includes Gate 5 fully lowered and the crest of Gates 6 and 7 lowered to approximately El. 2654.3 which is equivalent to approximately half lowered. The results indicate that the gates would pass a cumulative flow rate of approximately 870 cfs in this configuration with the forebay at El. 2657.0. Similar to the first scenario, this is more than estimated by the empirical analysis which indicates a capacity of approximately 770 cfs for this gate operation. This is approximately a 13 percent difference. This is closer to the empirical analysis then spillway scenario 1 as the internal edges of each gate are significantly submerged by the neighboring gates. An isometric of the results of this scenario is shown in Figure 25.

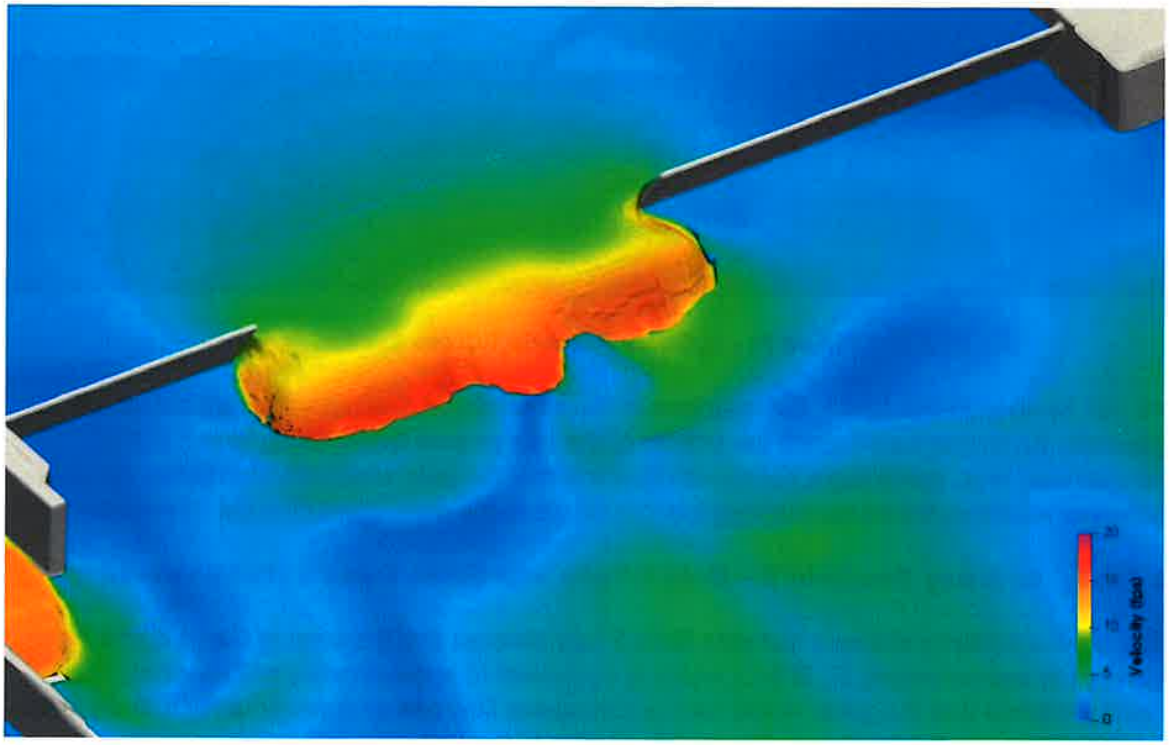


Figure 25 – Spillway Scenario 2 Isometric

As can be seen in this figure, velocities over the lowered gates reach approximately 17 fps with higher velocities concentrated near the center of the fully lowered Gate 6. Further, the same isometric with flow streamlines added is shown in Figure 26.

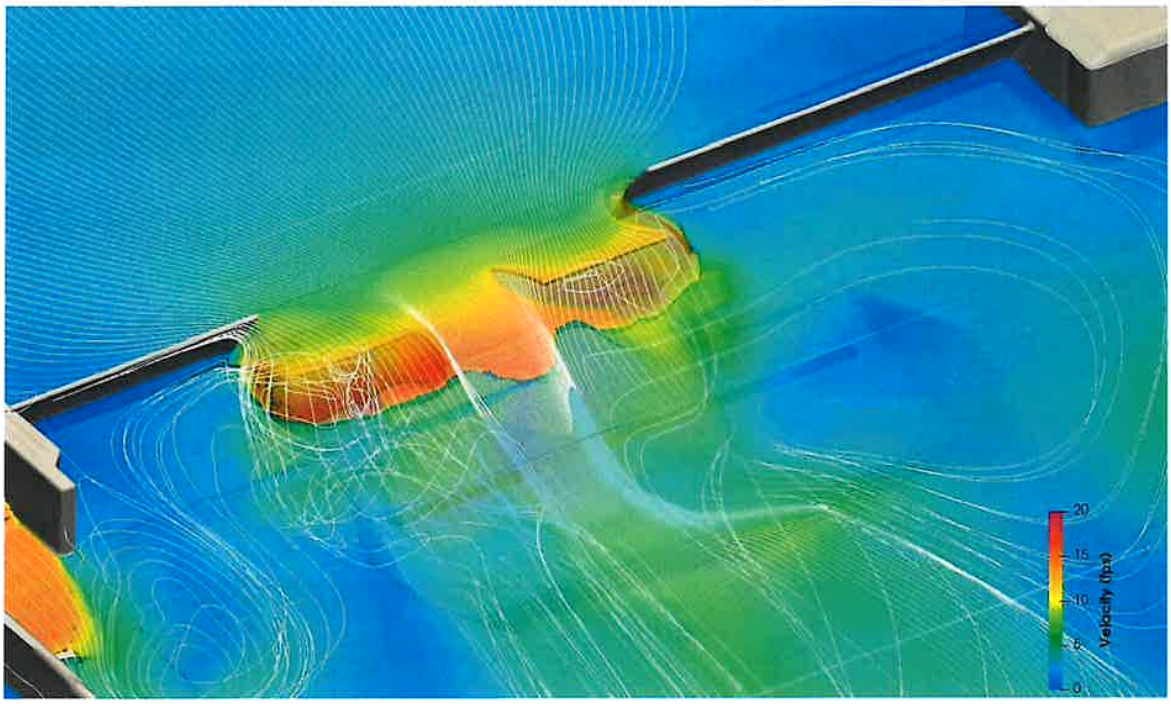


Figure 26 – Spillway Scenario 2 Isometric with Flow Streamlines

As can be seen in this figure, the majority of the streamlines from upstream of the gate are concentrated towards the central fully lowered gate. Some eddying is observed to the left and right of the gates though this is mainly due to flows deflecting off the river bank and the outside of waveshaper structure wall. Some flows are shown being pushed between the upper face of the center gate and lower faces of the side gates. These flows would likely be reduced by the Obermeyer gate bladders which are not included in the CFD model. Figure 27 shows cross sections through each spillway gate.

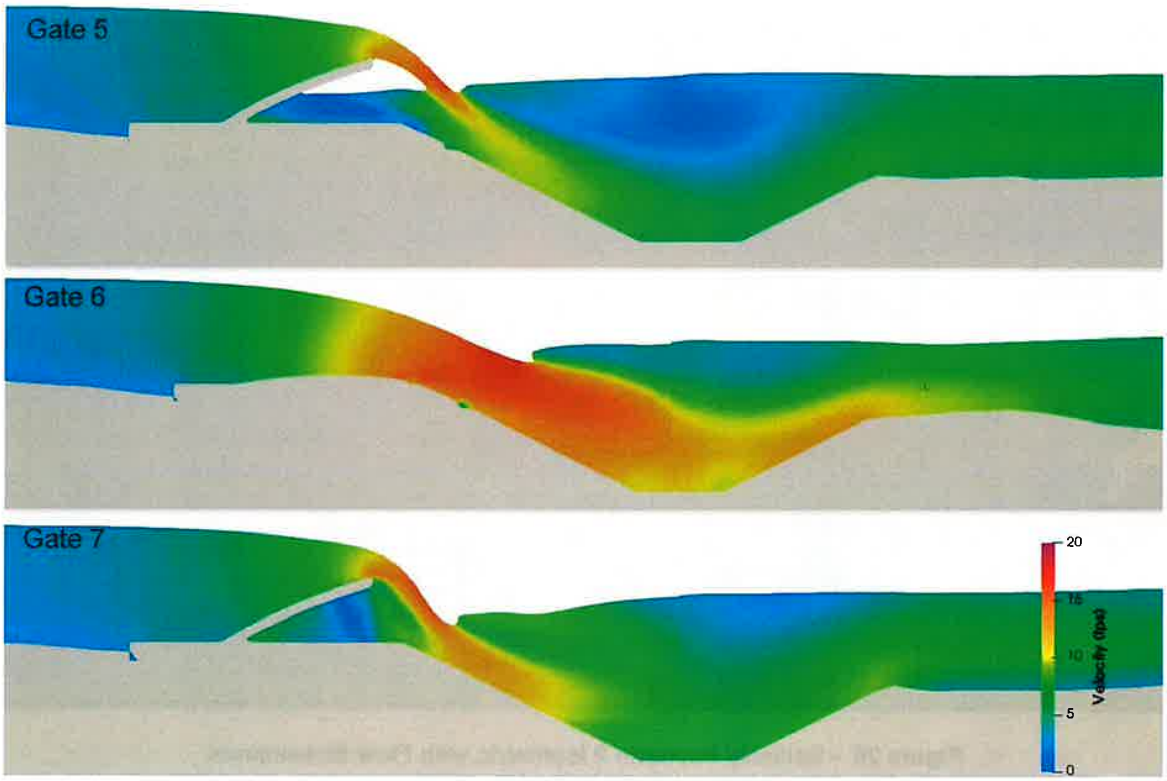


Figure 27 – Spillway Scenario 2 Cross Sections

As can be seen in this figure the hydraulics are variable at each gate but generally indicate a similar flow pattern of high velocities over the gate and entering the basin which dissipate in the plunge pool and are passed downstream. At gate 7 the nappe flow is depressed which is likely due to the dynamic CFD simulation and short time periods modeled. Over long term flows it is likely that the hydraulics would be more similar to those observed at Gate 5. Similar to the first spillway scenario, some slow recirculating velocities are observed within the new plunge pool but are generally minimal compared to the velocities passing downstream through the plunge pool.

4.0 Conclusions

McMillen has prepared a series of hydraulic analyses in support of the modification designs being developed for the J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase II. The results of the analyses presented in this TM show that the new Obermeyer gate proposed for downstream of the existing waveshaper gate could help to expand the operational range of the structure. Further, the proposed Obermeyer gate could be operated to limit impacts to the hydraulic regime within the Boise River during high flow events. The modifications to the spillway will help to improve the operational flexibility and the new plunge pool could allow for improved boater passage if they were to inadvertently pass over the spillway structure.

5.0 References

McMillen, Inc. (2023). *Technical Memorandum – Drop 1 Structure Modifications Scope of Work.* Boise, ID.

BOISE RIVER
OUTDOOR OPPORTUNITIES

MEMORANDUM

DATE: December 28, 2023

TO: Idaho Department of Water Resources
City of Boise

FROM: Adam Bass, Designated Agent, Boise River Outdoor Opportunities, LLC

RE: Proposed Whitewater Park Phase II Modifications – IDWR Response

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The following information is submitted for your consideration during the processing of the Joint Application for Permits to construct modifications to the Boise Whitewater Park Phase II.

The information the City provided in a memo titled Boise Whitewater Park Phase II Modifications – IDWR Response gives more clarity behind a brand new operation plan that only now includes recreational navigation in proposed WWP modifications. I sincerely appreciate the attempt to reach out by providing BROO this memo and to incorporate recreational navigation into the project. Acting as designated agent of BROO operations, I cannot support the modifications proposed or this very new operation plan. This first inclusionary attempt is very late in the process of a project with significant issues/concerns, which only now to be understood, the BROO operation has particular interest in. The issues/concerns are the following, and I understand this is a long list but this is the first chance for input so there is a lot to present:

1.a. Management of river feature operations - The City email to BROO with the memo attached states "inability to work within the river corridor this winter, we will be forced to operate the wave as it has been done in the 2020-2023 seasons." I wholeheartedly disagree because there are numerous and varying ways that operations can occur on a dynamic river environment and discussion of ways to improve upon the current operation should be fostered. The feature has numerous adjustable gates, and the river has numerous flows. Therefore, the wave feature has more ability than to have the same operation as previously done in the 2020-2023 season.

1.b. Management of project and operation on a navigable river – Navigation was never included in the design criteria for the modifications and therefore wasn't included in design. Navigability is critical for recreational enjoyment by the general public within a deemed navigable river.

The past operation chooses to close the river feature of recreational navigability to form a surf wave and for maintenance. This is also counter to the advertised "downriver stretch of the river" listed on the WWP website (https://www.boisewhitewaterpark.com/phase-2-updates).

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Further, at a Parks and Recreation Commissioner meeting it was unsure of the outcome the proposed modifications would have. The planned operations and management would have on the river feature. This is like the approach taken with past modifications to support the wave at drop feature 1, that failed.

1.c. Management of critical information about river conditions - The City failed to respond within time limits specified in the Idaho Public Records Law Manual. This request made, was the following: "*formal declaration from designers, modelers, or professional subject matter experts that the whitewater park is "unsafe" and a portage should be required. This might be a memo, email, or other type of correspondence including contract documents.*" This public records request was made on August 2nd and was responded to on September 14th. Such information of deemed hazards should be provided in a timely manner to bonded and licensed outfitters with operations on the river.

2.a. Recreation – General recreation issues are the following:

- The City has agreed it has committed past violations of Idaho Code by closing the river of recreational navigation. City statement, "There were times however, during monitored sessions, when low flows in the river required the tuber bypass to be closed to maintain wave shape and performance…". A choice is made to close the river of recreational navigation for the wave.
- The City put unreasonable mandatory portages into BROO outfitting contract documents.
- The City ignored notifications from BROO licensed officials of the operation plan to close recreational navigability at the WWP in summer of 2023.
- The project design continued in the summer and fall with design criteria excluding recreational navigability aspects. Offensively, a pejorative "stray boater" was described in the Hydraulics Report rather than using a more fitting term such as navigating watercraft.
- The modifications only include drop structure 1 but why is there no discussion about improvements to the second drop feature in this originally described "downriver stretch of the river" (https://www.boisewhitewaterpark.com/phase-2-updates). Drop structure 2 could also use some updates to meet the original design plan for downriver recreation. Therefore to meet original design intent, a modification should also be completed at drop structure 2 for a certificate of completion to be issued.

2.b. Recreational Safety - The City has arbitrarily deemed the wave feature hazardous and for experts only, created and then attempted to institute a required portage around the feature. It is very concerning to have City officials determine what is or is not safe on a river and to instigate portages around what a City official may arbitrarily determine to be a "hazard".

The proposed project does not intend to adjust this "hazardous" feature but to support it by building a wall behind the feature. This lack of fixing such a "hazard" but rather creating more unnatural features immediately downstream is a concerning approach. To accommodate recreational navigation, which apparently only is recently understood to be required, the operation plans to allow recreational watercraft through the "hazardous" feature.

3. Aesthetic Beauty - More unnatural gates in the river, how does this aid in the aesthetics of the river? Also, I personally don't like the aesthetics of seeing repairs being done on a regular basis when money can be spent better elsewhere within the Ordinary High Water Line of the Boise River. The additional river feature gates will cost more and more from year to year to maintain any "aesthetic beauty" it might have when working properly.

4. Fish and wildlife.- This project doesn't aid aquatic organisms due to constructing grouted in place rock which negatively impacts aquatic insect habitat.

All of my previous attempts with the City to raise these issues/concerns regarding recreational navigation, aesthetic beauty, and aquatic life ideas in proposed modifications and operational decisions have been met with stonewall practices. The City has not sought to understand the impacts these exclusionary practices have already had, which is unfortunate, but I look positively towards future BROO operations regardless. In conclusion, and acting as designated agent of BROO Outfitter Licenses #22388 and #24327, I urge the Idaho Department of Water Resources Director to thoroughly examine the impact of the proposed modifications and review the original and newly planned operational changes to the water it holds in public trust. I also encourage coordination with other state departments about their opinions. Also, I respectfully request the director to respond to the following question:

Does IDWR consider the proposed improvements, historical operations, and planned operations to be in conformance with statutes it has purview of upholding?
If yes, please provide a basis for reasoning of how the proposed improvements and planned operations will provide a beneficial use to the general public when it comes to the topics of recreational use, aesthetic beauty, and aquatic life.
If no, please provide a basis for reasoning of how the proposed improvements and planned operations would not provide a beneficial use to the general public when it comes to the topics of recreational use, aesthetic beauty, and aquatic life.

Further, the City's new operational plan to have recreational watercraft navigate through the feature conflicts with its current hydraulics report because the report doesn't adequately describe this concept and corresponding operation. I request a revision to the Hydraulics Report to include recreational navigation design descriptions and remove the term "stray boater". It should then be reissued to the general public for public comment.

Another separate report should include intended traffic movements for the river feature, both recreational watercraft and surfers. The City needs to study these issues more if it plans to construct adjustable features in a navigable river rather than coming up with a shoot from the hip attempt to incorporate recreational navigation. This last minute and thrown together attempt to include recreational navigation is deeply concerning for this permanent long term structure that is proposed.

The IDWR Director should be aware, if the City has not disclosed it yet, there is potential for a conflict of interest in this situation. This being due to a choice by the City to exclusively market the services of another Licensed Outfitter through the Float the Boise Program, which recently began in 2023 (https://www.floattheboise.org/pages/4ff6d0f8eace44e785bc15bed7af7be8). BROO has requested to be included in this Float the Boise Program since it has the same license as the other outfitter and also has a paddle rafting operation, but the request was unreasonably denied. The other outfitter would not be affected by this proposed project and corresponding impacts to recreational navigability because it does not operate through the WWP. Therefore, the City may be incentivized to not include navigability because reducing BROO's ability to navigate the feature will further benefit the outfitter it has chosen to provide an exclusive benefit to through the new Float the Boise Program.

I do continue to be optimistic for future collaborations despite this WWP modification project and hope the City will continue a practice that engages stakeholders through due diligence and good faith efforts going forward in relation to projects within the OHWL of a navigable river. It is encouraging that much education has been gained for this particular topic by myself and I hope the same by other involved officials as well. Our community must seek to build on this knowledge to further understand the roles and responsibilities our respective occupations hold as officials of a municipality, officials of a licensed outfitter, among many other officials. After all, we are both here to hold good faith efforts and due diligence actions that are in the best interest of the community, the ecosystem, and that foster proper commerce. When dealing with very dynamic navigable rivers, it is tremendously important that we act and seek to benefit all the overarching interests regarding stakeholders and these topics.

In regards to the exclusionary practices towards BROO guides by the City that includes related aspects to the proposed improvements at the Boise Whitewater Park:
I respectfully would like to point out to the Boise Parks and Rec Department about the Boise River Natural Resource Management and Master Plan that discusses a river ranger program for benefiting public safety. My perspective is that a "ranger" and a "guide" are the same thing except for that a guide is trained, licensed, and works for an insured and bonded outfitter, which is likely better. Everyone should appreciate the work of guides on a natural resource, they are such positive forces for encouraging understanding of the place we live in. They also already have difficult jobs without the City's unpredictable operation at the whitewater park. I remain hopeful the City one day will realize the opportunity to be and act as a partner to support licensed guiding and proper river commerce.

Adam Bass

Designated Agent


www.boiseriveroutdoor.com
208-519-2070
7661 W. Riverside Dr., Suite 104
Boise, ID 83714

ADA COUNTY RECORDER Christopher D. Rich
BOISE IDAHO Pgs=12 LISA BATT
STATE OF IDAHO DEPT OF LANDS

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300 N. 6th St., Suite 103
PO Box 83720
Boise, Idaho 83720-0050
Phone (208) 334-0200 Fax (208) 334-3698

IDAHO DEPARTMENT OF LANDS

STATE OF IDAHO

EASEMENT NO. ES600114

THIS EASEMENT, made this 13th day of September, 2018, by and between the **STATE OF IDAHO, Department of Lands**, 300 North 6th Street, Suite 103, P.O. Box 83720, Boise, Idaho 83720-0050, acting by and through the State Board of Land Commissioners, (Grantor), and **City of Boise, Parks and Recreation, 1104 Royal Blvd, Boise , Idaho 83706**, (Grantee);

WITNESSETH: That for and in consideration of a one-time administrative fee in the amount of THREE HUNDRED NO/100ths DOLLARS ($300.00), lawful money of the United States of America, receipt whereof is hereby acknowledged, the Grantor does hereby grant to the Grantee, (its) successors and assigns, a non-exclusive easement for the purpose of constructing, using, and maintaining a whitewater park across the Boise River situated in Ada County, State of Idaho, to-wit:

RIVERBED EASEMENT

An easement located in the NE¼ of Section 5, Township 3 North, Range 2 East, Boise Meridian, Ada County, Idaho more particularly described as follows:

Commencing at an aluminum cap monument marking the southeast corner of said NE ¼, thence along the Easterly boundary of said NE ¼ North 0°03'06" East 805.86 feet to a point, thence leaving said Easterly boundary N89°56'54" West 178.32 feet to the **POINT OF BEGINNING**, thence

South 66° 05' 02" East 23.76 feet, thence South 53° 15' 13" East 28.95 feet, thence South 34° 01' 10" East 41.89 feet, thence South 29° 03' 15" East 17.87 feet, thence South 08° 58' 21" East 33.39 feet, thence South 17° 55' 42" East 31.02 feet, thence South 15° 25' 20" West 26.11 feet, thence South 11° 41' 22" East 25.71 feet, thence South 02° 23' 10" East 62.55 feet, thence South 10° 42' 47" West 65.38 feet, thence South 05° 55' 54" West 67.20 feet, thence South 01° 25' 56" East 69.47 feet, thence South 04° 14' 09" East 23.50 feet, thence South 06° 37' 57" West 37.58 feet, thence South 04° 14' 12" East 23.50 feet, thence South 24° 16' 28" West 48.56 feet, thence South 48° 31' 42" West 164.43 feet, thence North 84° 57' 34" West 32.09 feet, thence North 02° 26' 12" East 239.97 feet, thence North 04° 07' 28" East 131.00 feet, thence North 83° 38' 43" West 93.35 feet, thence North 52° 41' 46" West 25.35 feet, thence North 17° 14' 28" West 32.95 feet, thence North 14° 12' 57" West 83.95 feet, thence North 26°

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12' 01" West 76.19 feet, thence North 23° 33' 55" West 111.28 feet, thence North 24° 30' 27" West 81.09 feet, thence North 26° 02' 31" West 106.28 feet, thence North 37° 24' 17" West 23.22 feet, thence North 30° 42' 00" West 80.76 feet, thence North 39° 01' 10" West 81.00 feet, thence North 33° 10' 42" West 33.71 feet, thence North 45° 58' 16" West 135.82 feet, thence North 44° 29' 21" East 106.58 feet, thence North 49° 04' 00" West 281.09 feet, thence North 40° 56' 00" East 68.02 feet, thence South 49° 04' 00" East 288.42 feet, thence South 50° 41' 23" East 208.96 feet, thence South 43° 01' 30" East 89.06 feet, thence South 37° 39' 56" East 156.27 feet, thence South 34° 18' 02" East 122.38 feet to the Northwest Corner of an existing easement described in Instrument Number 2015-004727, records of Ada County Idaho, thence along the West, Southwest and a portion of the East boundary of said existing easement the following 3 courses:
South 07° 41' 42" East 69.67 feet, thence South 43° 12' 03" East 126.60 feet, thence North 05° 09' 34" West 26.79 feet to the **POINT OF BEGINNING**.
Said Easement contains 305,994 square feet or 7.025 acres, more or less and is subject to any other easements existing or in use.

TAKE OUT EASEMENT

An easement located in the SE¼ of Section 32, Township 4 North, Range 2 East, Boise Meridian, Ada County, Idaho more particularly described as follows:

Commencing at an aluminum cap monument marking the quarter corner shared by Section 4 and Section 5, Township 3 North Range 2 East, thence along the line Common to said Sections 4 and 5 North 0°03'06" East 2678.34 feet to a Brass Cap monument being the Section Corner common to said Sections 4 and 5, said Section 32 and Section 33 of Township 4 North, Range 2 East, thence North 85°22'13" West 1706.04 feet to the **POINT OF BEGINNING**, thence

South 67° 09' 23" West 67.22 feet, thence North 23° 30' 44" West 218.68 feet, thence North 67° 09' 23" East 67.22 feet, thence South 23° 30' 44" East 218.68 feet to the **POINT OF BEGINNING.**

Said Easement contains 14,699 square feet or 0.337 acres, more or less and is subject to any other easements existing or in use

The above-described easement areas combined contain 7.362 acres, more or less.

Subject to the following terms:

A. General:

1. This easement may be assigned only with the prior written consent of the Grantor. The Grantee must use the prescribed form issued by the Grantor and pay the required easement assignment fee. Such consent shall not be unduly withheld.

2. The terms and conditions of this easement shall be binding on the successors and assigns of the respective parties.

3. The boundary lines of said easement shall be extended or shortened to begin on, end on, and conform to the ordinary high water mark of the Boise River.

B. Limited Purpose:

1. If the Grantee desires to use the easement for an additional or different purpose than the one specified herein, the Grantee shall make a request in writing to the Grantor. If approved, at Grantor's discretion, the original easement shall either be amended, or canceled and replaced by a new easement.

2. The Grantee may allow its agents, licensees, and contractors, hereinafter referred to as Permittees, to exercise the rights granted herein.

3. This easement does not give the Grantee authority to permit third party use of the easement area for any permanent purpose. Only the Grantor may authorize third party use. The Grantor may permit third party use only on the condition that said use shall not interfere with the Grantee's rights as hereby authorized. Third party use is herein defined as those wanting use of the easement area other than the Permittees of the Grantee.

C. Grantees Covenants:

1. The Grantee, and its Permittees, will comply with all applicable federal, state, and local laws, and with all applicable state administrative rules.

2. It is understood and agreed that the Grantee shall take measures for prevention of the spread of noxious weeds and invasive species through the inspection of any and all equipment proposed to be utilized within the navigable waters and riparian areas during the installation, use and maintenance of a whitewater park across the Boise River.

3. The Grantee shall indemnify and hold harmless, the Grantor and its representatives against and from any and all demands, claims, or liabilities of every nature whatsoever, arising directly or indirectly from or in any way connected with the use authorized under this easement, except to the extent any of the same result from the Grantor's negligence or breach of obligations under this easement.

4. It is understood and agreed that the legal description described in this easement is that provided by the Grantee who assumes full responsibility for the whitewater park being located within the described legal description. The Grantor assumes no responsibility involved with an inaccurate legal description.

D. Whitewater Park:

1. It is understood and agreed that the whitewater park is to be constructed and maintained in such a manner that will not obstruct, hinder, or affect navigation, recreation, or other authorized and customary use of the Boise River.

2. All underground facilities may be abandoned in place only with the prior written approval of Grantor.

E. Indemnification:

1. Grantee shall indemnify, defend, and save harmless the Grantor, its officers, agents, employees, and volunteers from and against any and all liability, claims, damages, losses, expenses, actions, settlements, attorneys' fees, and suits whatsoever caused by, arising out of, or in connection with Grantee's acts or omissions under this Agreement or Grantee's failure to comply with any state or federal statute, law, regulation, or rule.

2. Upon receipt of the Grantor's tender of indemnity and defense, Grantee shall immediately take all reasonable actions necessary, including, but not limited to, providing a legal defense for the Grantor, to begin fulfilling its obligation to indemnify, defend, and save harmless the Grantor. Grantee's indemnification and defense liabilities described herein shall apply regardless of any allegations that a claim or suit is attributable in whole or in part to any act or omission of the Grantor under this Agreement. However, if it is determined by a final judgment that the Grantor's negligent act or omission is the sole proximate cause of a suit or claim, the Grantor shall not be entitled to indemnification from Grantee with respect to such suit or claim, and the Grantor, in its discretion, may reimburse Grantee for reasonable defense costs attributable to the defense provided by any Special Deputy Attorney General appointed pursuant to section 3.

3. Any legal defense provided by Grantee to the Grantor under this section must be free of any conflicts of interest, even if retention of separate legal counsel for the Grantor

is necessary. Any attorney appointed to represent the Grantor must first qualify as and be appointed by the Attorney General of the State of Idaho as a Special Deputy Attorney General pursuant to Idaho Code Sections 67-1401(13) and 67-1409(1).

F. Grantors Reservations:

1. The Grantor reserves unto itself, the right and privilege to use said easement area for any and all purposes deemed necessary or desirable in connection with the control, management, administration, and use of Grantor's lands.

2. The Grantor reserves the right to grant additional easements over, under, or along this easement area. Any additional easements shall not unduly interfere with the rights and privileges hereby authorized to Grantee.

3. Nothing in this instrument will be construed as binding the Grantor to perform beyond its legal authority, or to expend any monies in excess of appropriations or authorized funds available for such purposes.

G. Termination:

1. This easement, or any segment or portion thereof, not used for five (5) consecutive years for the purpose for which it was granted, or construction not completed within five (5) years from the date of this easement for the purpose for which it was granted, is presumed abandoned. The Grantor shall notify the Grantee in writing if the easement is considered abandoned and will terminate said easement if notification of use is not received within thirty (30) days from the date of notification.

2. If at any time Grantee determines that this easement, or any segment thereof, is no longer needed for the purposes granted, Grantee shall furnish to the Grantor a statement in recordable form confirming termination.

3. The Grantor may, at its option, terminate this easement for breach of any of the terms of this easement and/or pursue other remedies to enforce the terms of this easement. If termination occurs, the director shall notify the Grantee in writing of the termination. The Grantee shall have thirty (30) days from the date of notification to appeal to the director for reinstatement.

H. Authority:

1. This easement is issued by the authority of the Rules for Easements on Submerged Lands and Formerly Submerged Lands (IDAPA 20.03.09) dated July 1993.

I. Additional Provisions:

1. Subject to State of Idaho Easement No. ES600069, for the purpose of constructing, using, and maintaining a replacement canal intake culvert within the OHWM of the Boise River issued to the City of Boise on January 16, 2015.

2. Grantee shall coordinate installation, construction, and maintenance with existing easement holders.

J. Acceptance:

1. USE OF THIS EASEMENT BY THE GRANTEE CONSTITUTES ACCEPTANCE OF THE EASEMENT AND AGREEMENT TO BE BOUND BY THE TERMS HEREOF.

IN WITNESS WHEREOF, City of Boise, has caused these presents to be duly executed by its name and title.

City Of Boise

By: _____

Printed Name: David Bieter

Title: Mayor

* * * * * * * * * * * * * * * *

ACKNOWLEDGEMENT

THE STATE OF Idaho)
) ss.
COUNTY OF Ada)

On this 29th day of August, 2018, before me, a Notary Public in and for said county and state, personally appeared David Bieter known to me to be an authorized agent for City of Boise, that executed the same instrument and acknowledged to me that he and she executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year written above.

TRACY HALL NOTARY PUBLIC STATE OF IDAHO

_____
NOTARY PUBLIC for Idaho
Residing at Boise, Idaho
My Commission expires:
12/16/20

IN WITNESS WHEREOF, the State Board of Land Commissioners has caused these presents to be executed by its President, the Governor of the State of Idaho, and countersigned by the Secretary of State and the Director, Idaho Department of Lands.

STATE BOARD OF LAND COMMISSIONERS

Governor of the State of Idaho and President of the State Board of Land Commissioners

Countersigned:

Secretary of State

Director, Idaho Department of Lands

* * * * * * * * * * * * * * * * *

STATE OF IDAHO)
) ss.
COUNTY OF ADA)

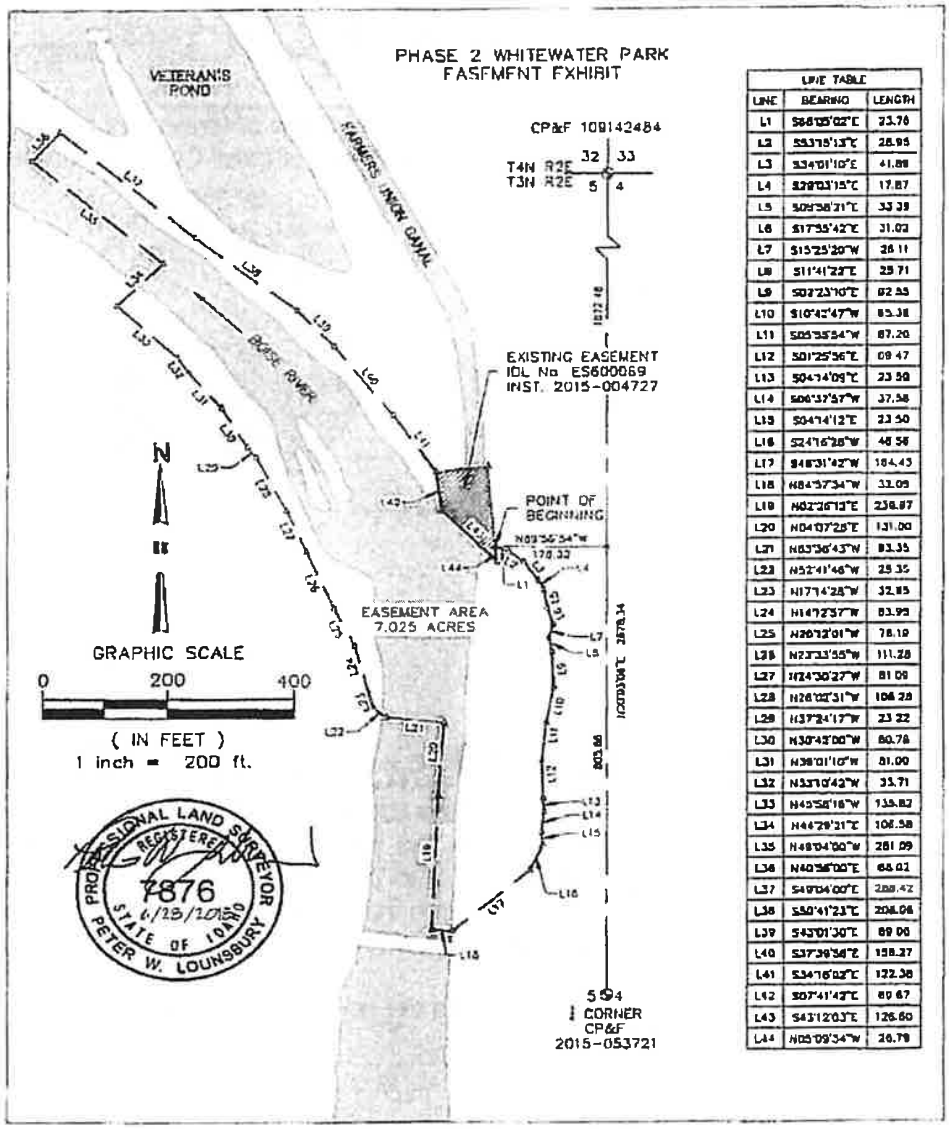
On this 13th day of September, 2018 before me, a Notary Public in and for said State, personally appeared **C.L. "BUTCH" OTTER**, known to me to be the Governor of the State of Idaho and President of the State Board of Land Commissioners; **LAWERENCE E. DENNEY**, known to me to be the Secretary of State for the State of Idaho; and David Groeser known to me to be the Director of Department of Lands of the State of Idaho, that executed the same instrument and acknowledged to me that such State of Idaho and State Board of Land Commissioners executed same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year written above.

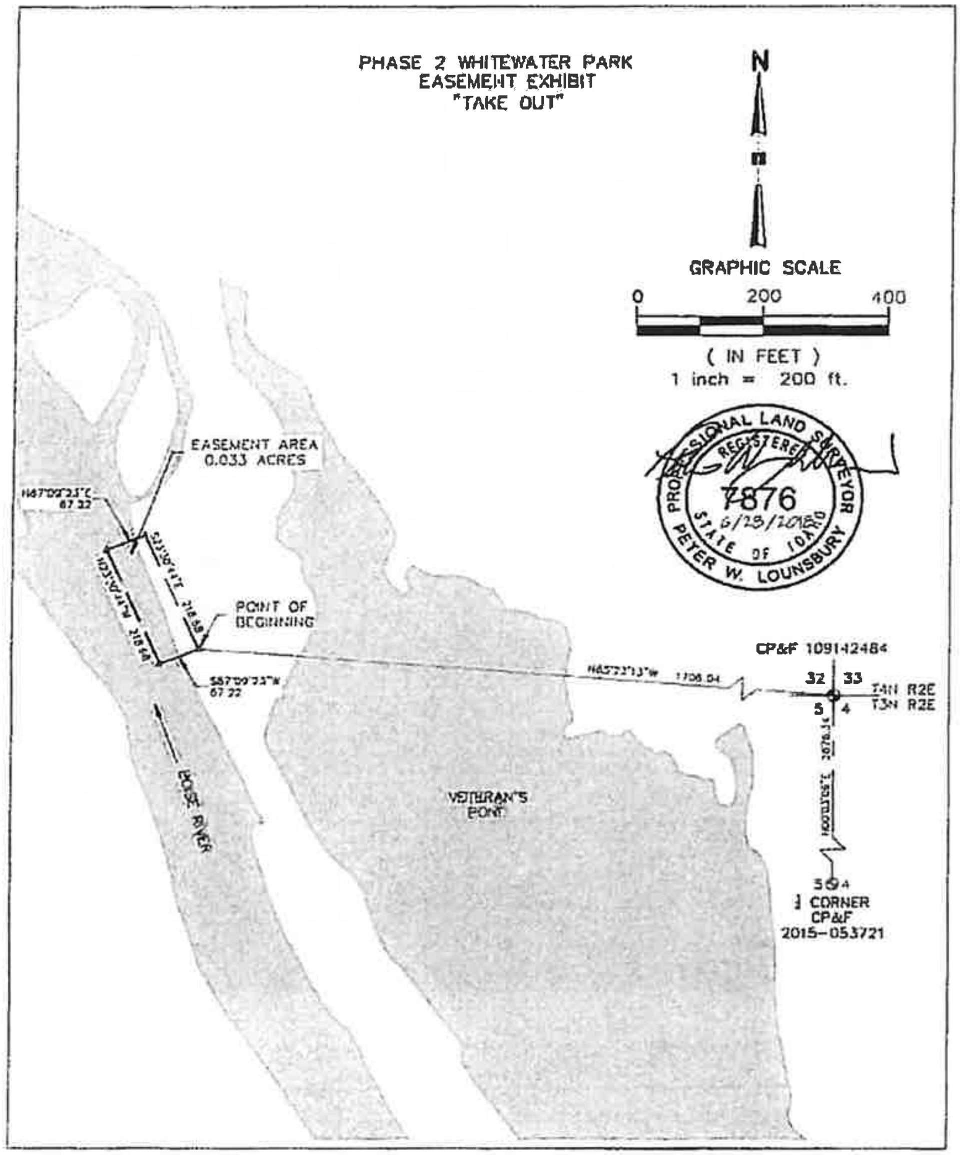
VANESSA WILSON NOTARY PUBLIC STATE OF IDAHO

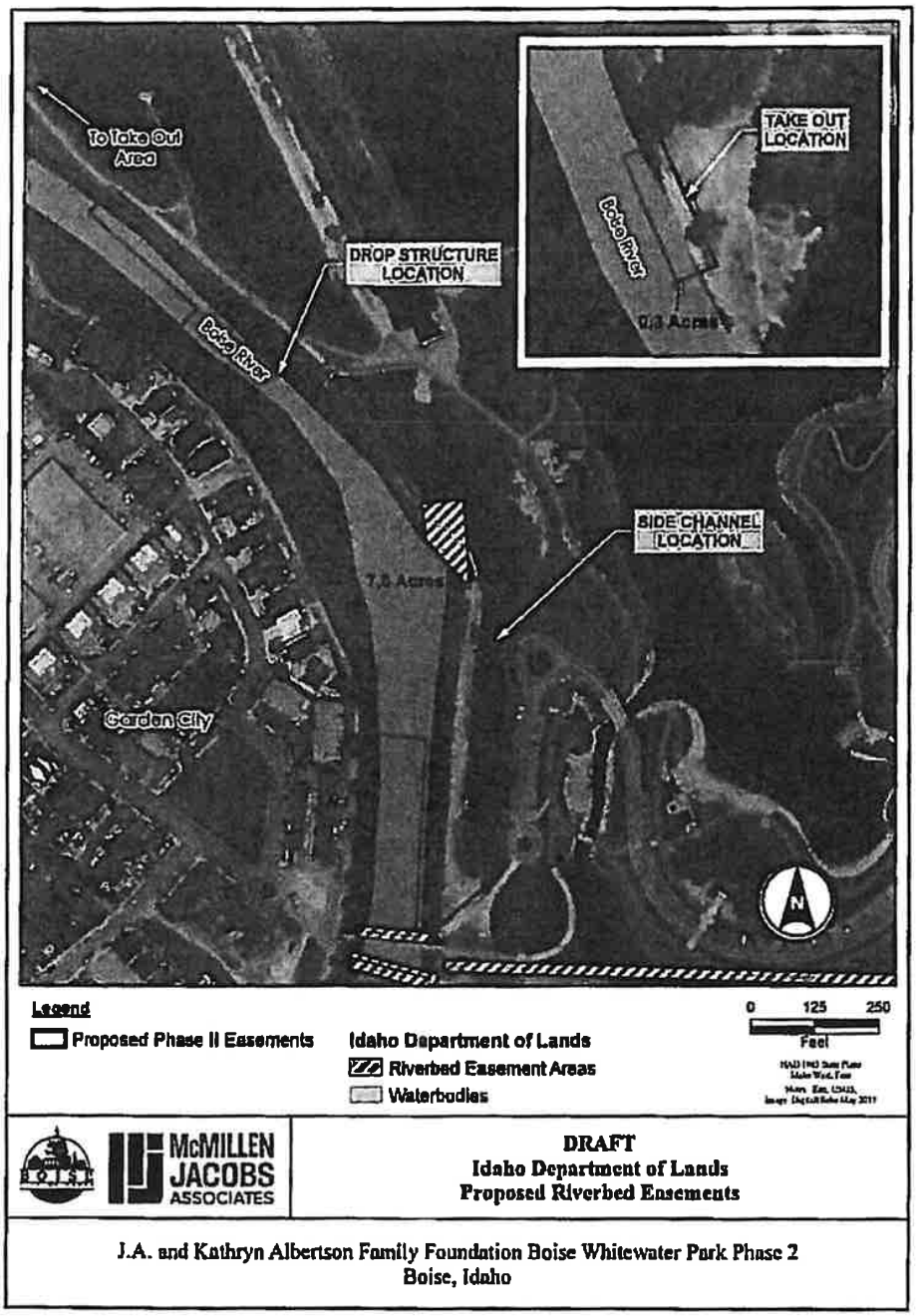
Vanessa Wilson
NOTARY PUBLIC for Idaho
Residing at Boise, Idaho
My Commission expires: 8-11-2020

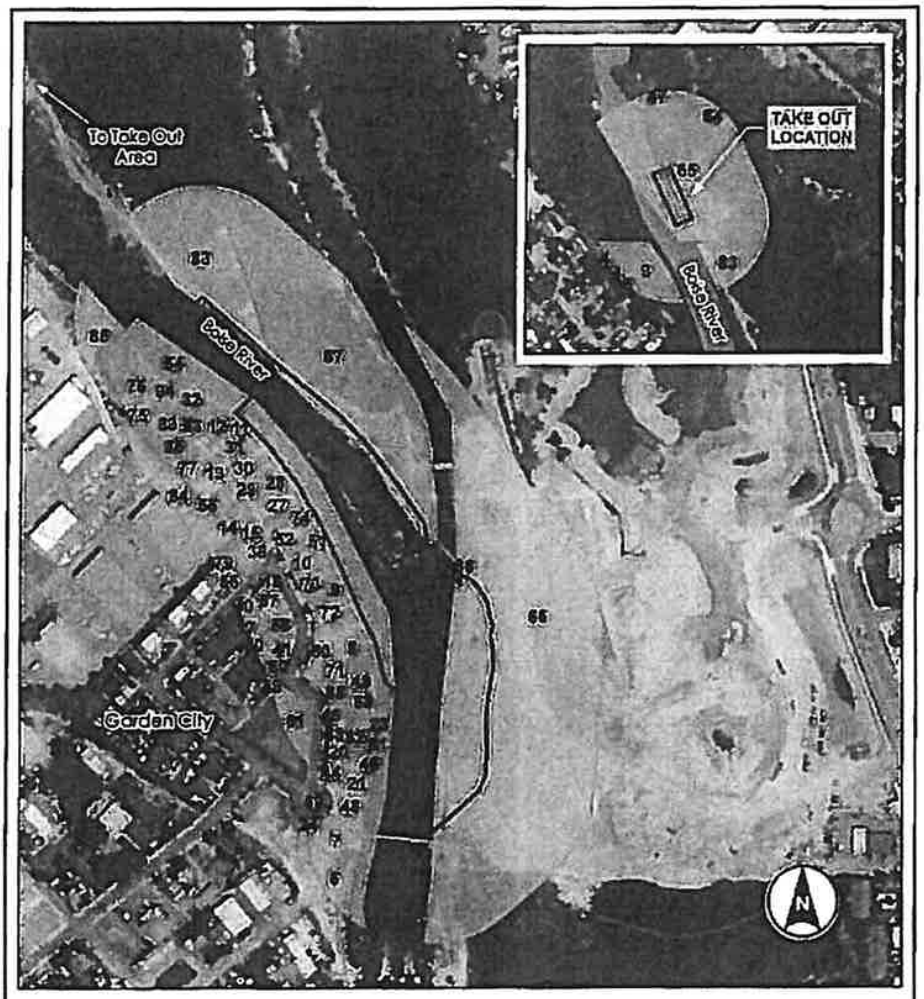
Exhibit A



LINE TABLE		
LINE	BEARING	LENGTH
L1	S88°25'02"E	23.76
L2	S53°15'13"E	28.95
L3	S34°01'10"E	41.88
L4	S28°03'15"E	17.87
L5	S09°58'21"E	33.39
L6	S17°55'42"E	31.03
L7	S15°25'20"W	28.11
L8	S11°41'23"E	25.71
L9	S02°23'10"E	82.55
L10	S10°42'47"W	85.36
L11	S05°35'54"W	87.20
L12	S01°25'56"E	09.47
L13	S04°14'09"E	23.58
L14	S06°37'57"W	37.58
L15	S04°14'12"E	23.50
L16	S24°16'28"W	48.58
L17	S48°31'42"W	184.43
L18	N84°57'34"W	33.09
L19	N02°26'13"E	238.87
L20	N04°07'28"E	131.00
L21	N83°36'43"W	83.35
L22	N52°41'48"W	29.35
L23	N17°14'28"W	32.85
L24	N14°12'57"W	83.93
L25	N26°12'01"W	78.19
L26	N23°33'55"W	111.28
L27	N24°30'27"W	81.09
L28	N26°02'31"W	106.28
L29	N37°24'17"W	23.22
L30	N30°43'00"W	80.76
L31	N38°01'10"W	81.00
L32	N33°10'42"W	35.71
L33	N40°56'16"W	139.82
L34	N44°29'21"E	108.58
L35	N48°04'00"W	281.09
L36	N40°56'00"E	68.01
L37	S49°04'00"E	288.42
L38	S50°41'23"E	208.06
L39	S43°01'30"E	89.00
L40	S37°39'56"E	158.27
L41	S34°16'02"E	122.38
L42	S07°41'47"E	80.67
L43	S43°12'03"E	126.60
L44	N05°09'34"W	26.78


PHASE 2 WHITEWATER PARK
EASEMENT EXHIBIT
"TAKE OUT"
N
GRAPHIC SCALE
0
200
400
(IN FEET)
1 inch = 200 ft.
PROFESSIONAL LAND SURVEYOR
REGISTERED
7876
STATE OF IDAHO
PETER W. LOUNSBURY
EASEMENT AREA
0.033 ACRES
POINT OF
BEGINNING
CP&F 109142484
32
33
5
4
T4N R2E
T3N R2E
CORNER
CP&F
2015-053721
BOISE RIVER


To Take Out Area
DROP STRUCTURE LOCATION
Boise River
TAKE OUT LOCATION
Boise River
0.3 Acres
SIDE CHANNEL LOCATION
7.0 Acres
Garden City
N
Legend
Proposed Phase II Easements
Idaho Department of Lands
Riverbed Easement Areas
Waterbodies
0 125 250
Feet
McMILLEN JACOBS ASSOCIATES
DRAFT
Idaho Department of Lands
Proposed Riverbed Easements
J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase 2
Boise, Idaho


To Take Out Area
TAKE OUT LOCATION
Boise River
Boise River
Garden City
N
Legend
Proposed Phase II Easements
Ada County Parcels*
*See Attached Excel Table for Parcel ID#
0 175 350
Feet
McMILLEN JACOBS ASSOCIATES
Idaho Department of Lands
Proposed Riverbed Easements
Land Parcels Within 300 feet
J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park Phase 2
Boise, Idaho

CITY OF BOISE
PARKS AND RECREATION DEPARTMENT

BOISE
CITY OF TREES

PARKS AND RECREATION

2024 Commercial Use Permit Application

EXHIBIT
D

CITY OF BOISE
PARKS AND RECREATION DEPARTMENT
COMMERCIAL USE APPLICATION

The City of Boise provides opportunities for entities to apply for a permit allowing them to conduct classes, lessons, tours, or demonstrations on city-owned/managed waterways and properties. **Permit applications shall be accepted throughout the year, with consideration being given on a first-come, first-served basis. Commercial Use Permits are awarded for the calendar year (January 1 - December 31) regardless of when applications are submitted.**

Entities wishing to acquire a permit to operate on city-owned/managed waterways and/or properties shall comply with all applicable laws, statutes, and ordinances, the terms and conditions stated in the Commercial Use Application, and the following standards, requirements, terms, and conditions.

Completed applications can be submitted to:
Boise Parks and Recreation Administration Office
1104 Royal Blvd.
Boise, ID 83706
Or emailed to: BPR@cityofboise.org

Boise Parks and Recreation reserves the right to deny a request if it does not meet the Parks and Recreation Department's mission, or conflicts with park operations.

Name of Business: _____

Address: _____

City, State, Zip Code: _____

Phone #: _____

E-mail Address: _____

Website: _____

Printed Name: _____

Title: _____

Date: _____

PERMIT QUESTIONNAIRE

1. **Application is for (*check all that apply*):**

   _____ Demonstrations

   _____ Lessons

   _____ Fitness Classes

   _____ Other: _____

2. ***Park/Facility Locations (*please attach and specify the location on a map*):**

   _____

   _____

   **Some Boise Parks and Recreation sites may be ineligible for the Commercial Use Program entirely or for a portion of the calendar year.*

For permitting in or surrounding bodies of water, please select from the following locations. *Boise Parks and Recreation will issue a maximum of six (6) water use permits annually.*

☐ **Bernardine Quinn Riverside Park Pond/Esther Simplot Park Pond #1**
(Esther Simplot Park Pond #2 is not available for commercial use.)

☐ **Boise River** – Commercial Guides wishing to enter or leave the Boise River through City managed property.
(Applicants floating the river through the JA and Kathryn Albertson Family Foundation Whitewater Park are required to portage around the park's features. The wave features will not be adjusted to accommodate passage.)

☐ **JA and Kathryn Albertson Family Foundation Boise Whitewater Park**
(Applicants that receive a permit to use the J.A. and Kathryn Albertson Family Foundation Boise Whitewater Park are subject to the wave schedule detailed on the city's website: https://www.cityofboise.org/departments/parks-and-recreation/parks/ja-and-kathryn-albertson-family-foundation-boise-whitewater-park/.

The wave schedule will not be altered to accommodate applicants' classes or lessons. Permittees do not receive exclusive use of the park and must share the wave with drop-in users.)

☐ **Marianne Williams Park Pond**
(Bank fishing only.)

☐ **Parkcenter Pond**
(Available for special events. Must go through Boise Parks and Recreation's reservation process.)

☐ **Veterans Memorial Park Pond**

3. **Description of Use.** Provide a description and the purpose of the commercial use you wish to conduct.

4. **Number of Staff:** _____

5. **Number of Participants Per Class/Lesson/Demonstration** (Please note that the maximum class size is 30 and dependent on the size of the area)**:** _____

6. **Schedule** (please list dates, times and recurrences of requested park space)**:**

7. **Experience in Managing Comparable Operations** (please describe your experience in this area)**:**

8. **Price Schedule:** List all prices you anticipate charging customers such as class tuition, etc.

_____

_____

9. **Equipment:** List all equipment you anticipate using during your commercial use activities.

_____

_____

_____

_____

10. **References:** Please include three references.

Name	Address	Phone Number
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. **Additional Comments/Information:** Include any additional information you feel will add additional value and consideration to the city awarding you a commercial use permit.

_____

_____

_____

_____

_____

_____

12. **Product Sponsorship:** The city enters into sponsorships for products such as soft drinks, which stipulate that the city will only sell their products through the term of the sponsorship. If awarded a permit, Applicant agrees to abide by the city's product sponsorships and use all products currently under contract with the city. ☐ Yes ☐ No

13. **Business License (Check one):**

Check	Item
	Applicant has a business license and copies are attached.
	Applicant agrees to obtain all required licenses/permits promptly at time of award announcement.

14. **Idaho Outfitters and Guides (Check One, If Applicable):** To enter or leave the Boise River from City owned property, applicants must have or obtain a license with the State of Idaho Outfitters and Guides Licensing Board.

Check	Item
	Applicant has a current license with the State of Idaho Outfitters and Guides Licensing Board, and a copy is attached.
	Applicant agrees to obtain required license from the State of Idaho Outfitters and Guides Licensing Board and submit proof of license, prior to being awarded a Commercial Use Permit for entering or leaving the Boise River through City managed property..
	Not Applicable.

15. **Insurance:** To operate on City of Boise managed waterways or properties, or to for commercial guides entering or leaving the Boise River through City managed property, applicants must possess Commercial General Liability Insurance, Commercial Automobile Insurance, and Workers Compensation Insurance at the following levels:

    A. Commercial General Liability

    Applicant shall maintain, and specifically agrees that it will maintain, throughout the term of the permit, Commercial General Liability Insurance, Workers' Compensation Insurance, and Employers' Liability Insurance in the form of a certificate of insurance issued on behalf of the

City of Boise, naming the City (Licensor) as an additional insured on the liability policies, for the following minimum limits and coverage:

Commercial General Liability Insurance in the following amounts:
General Aggregate $2,000,000
Product/Completed Operations Aggregate $2,000,000
Personal & Advertising Injury Liability $1,000,000
Per Occurrence $1,000,000

B. Commercial [Business] Automobile Liability

Proof of auto liability insurance coverage with State of Idaho required liability limits is required.

C. Workers Compensation and Employers Liability

Where required by law, the Permittee shall have and maintain during the life of this contract, statutory Workers Compensation and include Employers Liability with minimum limits of: Bodily injury by accident - $100,000 each accident; bodily injury by disease - $100,000 each employee; bodily injury by disease - $500,000 policy limit, while engaged as a Permittee. In case any such work is sublet, the Permittee shall require its sub-Permittee to provide Workers Compensation and Employers Liability Insurance where required by law.

The limits of insurance shall not be deemed a limitation of the covenants to indemnify and save and hold harmless the City. And if the City becomes liable for an amount in excess of the insurance limits herein provided, Applicant covenants and agrees to indemnify and save and hold harmless the City from and for all such losses, claims, actions or judgments for damages or liability to persons or property. **Applicant shall provide the City with a Certificate of Insurance or other proof of insurance evidencing Applicant's compliance with the requirements of this paragraph and file such proof of insurance with the City's Risk Manager and Department of Parks and Recreation.** In the event the insurance minimums of the Idaho Tort Claims Act are changed to exceed the above-listed amounts, Applicant shall immediately submit proof of compliance with the changed limits. If Applicant fails to provide or maintain said insurance in the amounts listed, even if cured by Applicant at a subsequent date, such shall be deemed an incurable default by Applicant, and Licensor may exercise any rights or remedies for such default that Licensor may have under this License or at law or equity, including, without limitation, the right to terminate this License.

Applicant has enclosed Certificate of Insurance. ☐ Yes ☐ No

16. **Fee**: To obtain a permit to conduct lessons, classes, demonstrations, on Boise City managed properties, the following fees are required:

Fee for up to 100 uses per calendar year:
$365 (City of Boise residents)
$565.75 (non-residents)

Additional fee for over 100 uses per calendar year:
$650 (City of Boise residents)
$1,007.50 (non-residents)

Please note, permittees wishing to conduct special events or special uses beyond the scope of their permit may be required to obtain an additional permit and pay additional fees to the City of Boise.

Check	Item
	Applicant has enclosed payment of annual permit fee.
	Applicant agrees to pay annual permit fee promptly at time of award announcement.

End of Application

[*Signatures appear on following page.*]

I hereby certify the enclosed information to be true and accurate, to the best of my knowledge. I understand that any misrepresentation of the information contained within may disqualify me from obtaining a Commercial Use Permit for City of Boise Department of Parks and Recreation managed properties. I also certify that I have read, and that I understand, the terms and conditions set forth in this Commercial Use Application and in the City's Terms of Commercial Use, which is attached hereto as Attachment A and incorporated herein by reference. By my signature, below, I knowingly and willingly agree to be bound by all applicable laws, statutes, ordinances, and regulations, and by the terms and conditions contained in both this Commercial Use Application and in the City's Terms of Commercial Use, attached and incorporated herein. Violation of any of the terms and conditions detailed in the Commercial Use Application or the City's Terms of Commercial Use may result in the revocation of the Commercial Use Permit. I further understand that this application does not guarantee me issuance of a Commercial Use Permit.

Permit holder shall save, defend, indemnify, and hold City harmless from and against any and all loss, damage, liability, or claims (including, without limitation, costs and expense of litigation and reasonable attorneys' fees) (collectively, "Claims") arising from, or connected with, this Permit and/or use of the Licensed Space by Permit holder or Permit holder's employees, agents, or invitees.

Printed Name of Applicant: _____

Signature of Applicant: _____ Date: _____

STATE OF IDAHO)
) ss.
County of Ada)

On this _____ day of _____, before me, a notary public, personally appeared _____, known or identified to me to be the _____ of _____, who executed the within instrument on behalf of the company.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first written above.

_____
Notary Public for Idaho
Commission Expires_____

[THIS PAGE IS FOR BPR STAFF USE ONLY]

Commercial Use Permit – Conditions for Approval

Check	Item	
	Completed & notarized application	
	Commercial General Liability Insurance: City of Boise listed as certificate holder	
	Automobile Liability Insurance	
	Workers Compensation and Employers Liability	(or) WC Vendor Declaration approved by Risk & Safety
	Payment	
	Schedule	

2024 Commercial Use Permit	
	APPROVED
	DENIED

RAÚL R. LABRADOR
ATTORNEY GENERAL

SCOTT L. CAMPBELL
Chief of Energy and Natural Resources Division

GARRICK L. BAXTER, ISB No. 6301
MEGHAN M. CARTER, ISB No. 8863
Deputy Attorneys General
Idaho Department of Water Resources
P.O. Box 83720
Boise, Idaho 83720-0098
Telephone: (208) 287-4800
Facsimile: (208) 287-6700
garrick.baxter@idwr.idaho.gov
meghan.carter@idwr.idaho.gov

Attorneys for the Idaho Department of Water Resources

IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF

THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, an Idaho limited liability company, Petitioner, v. THE IDAHO DEPARTMENT OF WATER RESOURCES, Respondent.	Case No. CV01-24-04576 **NOTICE OF LODGING THE AGENCY RECORD WITH THE AGENCY**
IN THE MATTER OF APPLICATION FOR PERMIT NO. S63-21092 IN THE NAME OF BOISE RIVER OUTDOOR OPPORTUNITIES	

TO: THE DISTRICT COURT AND THE PARTIES OF RECORD

In accordance with I.R.C.P. 84(j), YOU ARE HEREBY NOTIFIED that the agency record, having been prepared pursuant to I.R.C.P. 84(f), is lodged with the Idaho Department of Water Resources for the purpose of settlement.

A copy of the agency record filed with the Department has been uploaded to the Department's website. The parties may visit https://idwr.idaho.gov/legal-actions/district-court-actions/BROO-v-IDWR/ and follow their browser's document download procedure to obtain a copy of the agency record after expanding the accordion labeled "Agency Record" and clicking on the PDF titled "Agency Record on Appeal".

The parties have fourteen (14) days from the date of this notice to file any objections to the record. The agency's decision on any objection timely filed along with all evidence, exhibits, and written presentations on the objection shall be determined by the agency within fourteen (14) days and included in the record. If no objections are filed within that time, the record shall be deemed settled. Subsequently, the agency will lodge the settled record with the District Court pursuant to I.R.C.P. 84(k).

DATED this 1st day of April 2024.

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL

GARRICK L. BAXTER
Deputy Attorney General

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 1st day of April 2024, I caused to be served a true and correct copy of the foregoing *Notice of Lodging the Agency Record With the Agency*, via iCourt E-File and Serve, upon the following:

C. Tom Arkoosh
Jeremy C. Rausch
ARKOOSH LAW OFFICES
tom.arkoosh@arkoosh.com
jeremy.rausch@arkoosh.com

Darrell G. Early
Deputy City Attorney
CITY OF BOISE
OFFICE OF THE CITY ATTORNEY
BoiseCityAttorney@cityofboise.org

GARRICK L. BAXTER
Deputy Attorney General

C. Tom Arkoosh, ISB No. 2253
Jeremy C. Rausch, ISB No. 11787
ARKOOSH LAW OFFICES
913 W. River St., Ste. 450
P.O. Box 2900
Boise, ID 83701
Telephone: (208) 343-5105
Facsimile: (208) 343-5456
Email: tom.arkoosh@arkoosh.com
jeremy.rausch@arkoosh.com
Copy to: monica.lehman@arkoosh.com

Attorneys for Petitioner

IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF

THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, an Idaho limited liability company, Petitioner, v. THE IDAHO DEPARTMENT OF WATER RESOURCES, Respondent.	Case No. CV01-24-04576 **PETITIONER'S OBJECTION TO AGENCY RECORD**
IN THE MATTER OF APPLICATION FOR PERMIT NO. S63-21092 IN THE NAME OF BOISE RIVER OUTDOOR OPPORTUNITIES	

COMES NOW the Petitioner, BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, through its agent ADAM BASS ("Adam"), by and through its attorneys of record, C. Tom Arkoosh and Jeremy C. Rausch of Arkoosh Law Offices, and pursuant to Rule 84(j)(3) of the Idaho Rules of Civil Procedure hereby provides this notice of objection to the record lodged by the agency in the above-captioned matter (the "Agency Record").

OBJECTION TO AGENCY RECORD

The Agency Record appears to omit numerous records that were provided to and considered in the decision complained of, that were not provided to this Court and fails to include documents relating to the Application as required by Idaho Rule of Civil Procedure Rule 84(j). Please see the *Declaration of Jeremy Rausch in Support of Petitioner's Objection to Agency Record*, filed simultaneously herewith, which sets forth the documents not included in the Agency Record. Petitioner respectfully requests that the Agency Record be augmented to include these documents.

DATED this 15th day of April 2024.

ARKOOSH LAW OFFICES

/s/ Jeremy C. Rausch
Jeremy C. Rausch
Attorney for Petitioner

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 15th day of April 2024, I served a true and correct copy of the foregoing document(s) upon the following person(s), in the manner indicated:

Jayme B. Sullivan
Boise City Attorney
Darrell G. Early
Deputy City Attorney
CITY OF BOISE
OFFICE OF THE CITY ATTORNEY
P.O. Box 500
Boise, ID 83701-0500

Attorneys for Intervenor City of Boise

___ U.S. Mail, Postage Prepaid
___ Overnight Courier
___ Hand Delivered
___ Via Facsimile: (208) 287-6700
_X_ E-service:
BoiseCityAttorney@cityofboise.org

Garrick L. Baxter
Meghan M. Carter
Deputy Attorneys General
Idaho Department of Water Resources
P.O. Box 83720
Boise, ID 83720-0098

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Boise, ID 83702

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DATED this 15th day of April 2024.

ARKOOSH LAW OFFICES

/s/ Jeremy C. Rausch
Jeremy C. Rausch
Attorney for Petitioner

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Attorneys for Petitioner

IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF

THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, an Idaho limited liability company, Petitioner, v. THE IDAHO DEPARTMENT OF WATER RESOURCES, Respondent.	Case No. CV01-24-04576 **DECLARATION OF JEREMY C. RAUSCH IN SUPPORT OF PETITIONER'S OBJECTION TO AGENCY RECORD**
IN THE MATTER OF APPLICATION FOR PERMIT NO. S63-21092 IN THE NAME OF BOISE RIVER OUTDOOR OPPORTUNITIES	

JEREMY C. RAUSCH declares and says as follows:

1. All statements made in this declaration are true to the best of my knowledge and belief.

2. I am counsel for the Petitioner in the above-entitled action.

3. There are numerous correspondence and documents with the Idaho Department of

Water Resources ("IDWR") and the Applicant, City of Boise, that are not included in the record lodged by the agency in the above-entitled matter (the "Agency Record"), including at least the following:

a. *Technical Memorandum Drop 1 Hydraulic Analysis,* dated September 27, 2023; see attached a true and correct copy as Exhibit A.

b. *Performance + Expectations for Phase 2 Improvements,* dated January 24, 2023, from the City of Boise Parks and Recreation; see attached a true and correct copy as Exhibit B.

c. Correspondence between City of Boise, Idaho River's United, and Boise River Outdoor Opportunities dated from August 2, 2022, to July 20, 2023; see attached a true and correct copy as Exhibit C.

d. Correspondence between Boise River Outdoor Opportunities and Idaho Department of Water Resources dated from February 1, 2024, to February 6, 2024; see attached a true and correct copy as Exhibit D.

e. Correspondence from Idaho Outfitters and Guides Association to City of Boise dated June 12, 2023; see attached a true and correct copy as Exhibit E.

f. Correspondence between Boise River Outdoor Opportunities and Idaho Department of Water Resources dated from November 8, 2023, to December 15, 2023; see attached a true and correct copy as Exhibit F.

/ / /

/ / /

/ / /

4. As provided by Idaho Code § 9-1406, I certify and declare under the penalty of perjury pursuant to the law of the state of Idaho that the foregoing is true and correct to the best of my knowledge and belief.

DATED this 15th day of April 2024.

ARKOOSH LAW OFFICES

/s/ Jeremy C. Rausch
Jeremy C. Rausch
Attorney for Petitioner

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on the 15th day of April 2024, I served a true and correct copy of the foregoing document(s) upon the following person(s), in the manner indicated:

Jayme B. Sullivan
Boise City Attorney
Darrell G. Early
Deputy City Attorney
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OFFICE OF THE CITY ATTORNEY
P.O. Box 500
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Attorneys for Intervenor City of Boise

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Deputy Attorneys General
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Attorneys for the Idaho Department of Water Resources

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DATED this 15th day of April 2024.

ARKOOSH LAW OFFICES

/s/ Jeremy C. Rausch
Jeremy C. Rausch
Attorney for Petitioner

RAÚL R. LABRADOR
ATTORNEY GENERAL

SCOTT L. CAMPBELL
Chief of Energy and Natural Resources Division

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Attorneys for the Idaho Department of Water Resources

IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, an Idaho limited liability company, Petitioner, v. THE IDAHO DEPARTMENT OF WATER RESOURCES, Respondent, and CITY OF BOISE, Intervenor.	Case No. CV01-24-04576 **RESPONSE TO OBJECTION; ORDER SETTLING THE AGENCY RECORD**
IN THE MATTER OF APPLICATION FOR PERMIT NO. S63-21092 IN THE NAME OF BOISE RIVER OUTDOOR OPPORTUNITIES	

TO: THE DISTRICT COURT AND THE PARTIES OF RECORD

On April 1, 2024, the Idaho Department of Water Resources ("Department") served its *Notice of Lodging the Agency Record with the Agency* ("*Notice*") in this matter pursuant to I.R.C.P 84(j). The *Notice* gave the parties fourteen (14) days from the date of the *Notice* to file any objection to the agency record. On April 15, 2024, Boise River Outdoor Opportunities, LLC filed *Petitioner's Objection to Agency Record* ("*Objection*") and *Declaration of Jeremy C. Rausch in Support of Petitioner's Objection to Agency Record* ("*Declaration in Support*").

RESPONSE TO OBJECTION

In accordance with I.R.C.P. 84(j), the Director will address Petitioner's request for inclusion of additional documents in the agency record as identified in Petitioner's *Declaration in Support*. *See Objection* at 2.

Petitioner's *Objection* states that the agency record "appears to omit numerous records that were provided to and considered in the decision complained of, . . . and fails to include documents relating to the Application as required by Idaho Rule of Civil Procedure Rule 84(j)." *Objection* at 2. While I.C.R.P. 84(j) sets forth the procedure to settle an agency transcript and record in a district court judicial review proceeding, it does not address the topic of what is required to be included in an agency record on appeal.

Idaho Rule of Civil Procedure 84(f)(1)(A) states: "When statute provides what must be contained in the official record of the agency on judicial review, the agency must prepare the record as provided by statute." Idaho Code § 67-5249(2) sets forth the scope of the agency record in this proceeding. It states:

(2) The record shall include:
(a) all notices of proceedings, pleadings, motions, briefs, petitions, and intermediate rulings;
(b) evidence received or considered;
(c) a statement of matters officially noticed;
(d) offers of proof and objections and rulings thereon;
(e) the record prepared by the presiding officer under the provisions of section 67-5242, Idaho Code, together with any transcript of all or part of that record;
(f) staff memoranda or data submitted to the presiding officer or the agency head in connection with the consideration of the proceeding; and
(g) any recommended order, preliminary order, final order, or order on reconsideration.

I.C. § 67-5249(2). In addition, Idaho Code § 67-5242 outlines the procedures for conducting an administrative hearing in a contested case. No hearing was held in the underlying administrative contested case; therefore, the provisions of Idaho Code § 67-5242 do not apply.

A. Documents added to the agency record.

The Director agrees to include the following documents in the agency record:

1. McMillen Technical Memorandum Re: Drop 1 Hydraulic Analysis, September 27, 2023. Attached to *Declaration in Support* as Exhibit A.
2. Email Chain—Correspondence between Boise River Outdoor Opportunities and the Department, February 6, 2024 (date of lead email). Attached to *Declaration in Support* as Exhibit D.
3. Email Chain—Correspondence between Boise River Outdoor Opportunities and the Department, December 15, 2023 (date of lead email). Attached to *Declaration in Support* as Exhibit F.

B. Documents not added to the agency record.

In accordance with Idaho Code § 67-5249, the Director concludes that the below-listed correspondence documents do not meet the criteria for inclusion in the agency record. The correspondence documents are not addressed to any employee or legal representative of the Department and were not sent in relation to the administrative contested case referenced in the judicial review petition. They were not provided as evidence for the Department in relation to the underlying contested case, nor were they considered. For those reasons, the Director finds the agency record should not include the following documents:

1. City of Boise Parks and Recreation Department Memorandum Re: Performance + Expectations for Phase 2 Improvements, January 24, 2023. Attached to *Declaration in Support* as Exhibit B.
2. Email Chain—Correspondence between the City of Boise, Idaho River's United, and Boise River Outdoor Opportunities, August 2, 2022 (date of lead email). Attached to *Declaration in Support* as Exhibit C.
3. Letter—Correspondence from Idaho Outfitters and Guides Association to the City of Boise, June 12, 2023. Attached to *Declaration in Support* as Exhibit E.

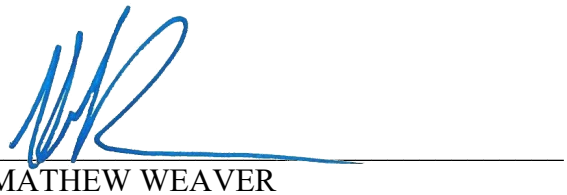
ORDER

IT IS HEREBY ORDERED that, upon the changes reflected above being made to the agency record, the agency record is now deemed settled pursuant to I.R.C.P. 84(j).

IT IS FURTHER ORDERED that, pursuant to I.R.C.P. 84(j), *Petitioner's Objection to Agency Record*, Petitioner's *Declaration of Jeremy C. Rausch in Support of Petitioner's Objection to Agency Record*, and this order shall be included in the agency

record on the petition for judicial review. The Department shall provide the parties with a copy of the settled agency record.

DATED this 29th day of April 2024.



MATHEW WEAVER
Director
Idaho Department of Water Resources

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 29th day of April 2024, I caused to be served a true and correct copy of the foregoing *Response to Objection; Order Settling the Agency Record*, via iCourt E-File and Serve, upon the following:

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Jeremy C. Rausch
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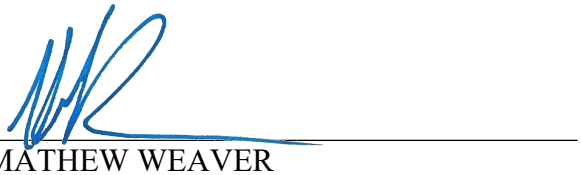
IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, an Idaho limited liability company, Petitioner, v. THE IDAHO DEPARTMENT OF WATER RESOURCES, Respondent, and CITY OF BOISE, Intervenor.	Case No. CV01-24-04576 **AGENCY'S CERTIFICATE OF RECORD**
IN THE MATTER OF APPLICATION FOR PERMIT NO. S63-21092 IN THE NAME OF BOISE RIVER OUTDOOR OPPORTUNITIES	

TO: THE DISTRICT COURT AND THE PARTIES OF RECORD

I, Mathew Weaver, Director of the Idaho Department of Water Resources, do hereby certify that the above and foregoing record listed and produced were compiled under my direction, and are a true and correct record of the pleadings and papers offered and admitted therein as shown in the table of contents and index to this record.

DATED this 29th day of April 2024.



MATHEW WEAVER
Director
Idaho Department of Water Resources

RAÚL R. LABRADOR
ATTORNEY GENERAL

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IN THE DISTRICT COURT OF THE FOURTH JUDICIAL DISTRICT OF

THE STATE OF IDAHO, IN AND FOR THE COUNTY OF ADA

BOISE RIVER OUTDOOR OPPORTUNITIES, LLC, an Idaho limited liability company, Petitioner, v. THE IDAHO DEPARTMENT OF WATER RESOURCES, Respondent, and CITY OF BOISE, Intervenor.	Case No. CV01-24-04576 **NOTICE OF LODGING THE SETTLED AGENCY RECORD WITH THE DISTRICT COURT**
IN THE MATTER OF APPLICATION FOR PERMIT NO. S63-21092 IN THE NAME OF BOISE RIVER OUTDOOR OPPORTUNITIES	

TO: THE DISTRICT COURT AND THE PARTIES OF RECORD

On April 1, 2024, the Idaho Department of Water Resources ("Department") served its *Notice of Lodging the Agency Record with the Agency* ("*Notice*") in this matter pursuant to I.R.C.P 84(j). The *Notice* gave the parties fourteen (14) days from the date of the *Notice* to file any objection to the agency record. On April 15, 2024, Boise River Outdoor Opportunities, LLC filed *Petitioner's Objection to Agency Record* ("*Objection*") and *Declaration of Jeremy C. Rausch in Support of Petitioner's Objection to Agency Record* ("*Declaration in Support*"), requesting the inclusion of six additional documents in the agency record. The Department's *Response to Objection; Order Settling the Agency Record* is filed concurrently herewith, and the record is deemed settled pursuant to I.R.C.P. 84(j).

YOU ARE HEREBY NOTIFIED that the settled record has been served upon the parties, and, pursuant to I.R.C.P. 84(k), concurrently filed with the District Court through iCourt e-filing.

DATED this 29th day of April 2024.

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL

GARRICK L. BAXTER
Deputy Attorney General

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 29th day of April 2024, I caused to be served a true and correct copy of the foregoing *Notice of Lodging the Settled Agency Record With the District Court*, via iCourt E-File and Serve, upon the following:

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Deputy Attorney General