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Savannah Downey
State Water Resources Control Board
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Submitted electronically via commentletters@waterboards.ca.gov

Re: American Whitewater and American Rivers' Comments on McCloud-Pit Hydroelectric Project Draft Order and Draft Water Quality Certification

Dear Ms. Downey and the State Water Resources Control Board:

American Whitewater and American Rivers respectfully submit these comments on the State Water Board's April 23, 2026 *Draft Order Granting In Part and Denying In Part Petitions for Reconsideration and Certifying a Final Subsequent Environmental Impact Report* (Draft Order), including the *Draft Water Quality Certification for Federal Permit or License* contained in Attachment 1 (Draft WQC).

American Whitewater has actively participated in the McCloud-Pit relicensing proceeding before the Federal Energy Regulatory Commission since intervening in 2009. Throughout this process, we have consistently advocated for flow management in the McCloud River that more closely reflects natural seasonal hydrology, including elevated spring flows and gradual recession patterns that support geomorphic function, aquatic and riparian ecosystem processes, channel maintenance, and whitewater recreation opportunities. This integrated approach to flow management has become standard practice at federally licensed hydropower projects as a means of aligning ecosystem needs with opportunities for the public to experience and enjoy rivers affected by hydropower operations.

Our longstanding position has been that whitewater recreation flows should not be viewed as a stand-alone recreational program, but rather as part of a broader annual spring flow management framework that provides ecological, hydrologic, geomorphic, and recreational benefits. The comments provided herein describe how the Draft WQC could more effectively

integrate these related functions through recurring spring pulse flows that better protect beneficial uses below McCloud Dam. Additionally, we incorporate by reference American Whitewater's verbal comments provided to the Water board at its May 6, 2026 public comment meeting on this subject.

I. The State Water Board Properly Asserts Its Authority to Protect Beneficial Uses Including Whitewater Recreation

American Whitewater supports the State Water Board's conclusions in Section 4.4 of the Draft Order regarding the scope of its authority under Section 401 of the Clean Water Act and the California Water Code. The State Water Board correctly recognizes that it possesses authority to protect beneficial uses of waters of the State, including flow-dependent recreational uses such as whitewater boating.

The Basin Plan identifies water contact recreation, including canoeing and rafting, as beneficial uses of the McCloud River's waters. Protection of beneficial uses necessarily includes consideration of flow conditions where those uses are inherently flow-dependent. The Draft Order therefore correctly recognizes that flow management measures related to whitewater recreation may properly fall within the scope of the State Water Board's certification authority.

II. Condition 10 Fails to Meaningfully Protect Recreation Beneficial Uses and Improperly Segregates Recreation Flows from Broader Spring Flow Management

Condition 10 of the Draft WQC establishes an exceptionally weak and highly constrained framework for whitewater boating flows in the McCloud River. More fundamentally, however, the condition improperly treats whitewater recreation flows as a stand-alone recreational program rather than integrating them into a broader spring flow management framework capable of simultaneously supporting ecological, hydrologic, geomorphic, and recreational beneficial uses.

Throughout the relicensing proceeding, American Whitewater has consistently advocated for flow management that more closely reflects natural seasonal hydrology, including elevated spring flows and gradual recession patterns that provide multiple and complementary ecological and public benefits. Properly designed spring pulse flows can simultaneously support geomorphic function, aquatic and riparian habitat processes, channel maintenance, and whitewater recreation opportunities.

However, the Draft WQC's treatment of whitewater recreation flows is disconnected from the broader hydrologic and geomorphic framework found elsewhere in the Draft WQC. For

example, the rationale for Condition 1 (Minimum Instream Flows and Ramping Rates) explains that minimum instream flows and ramping rates were developed through extensive hydrologic evaluation intended to mimic aspects of the natural hydrograph and support fluvial geomorphic processes and aquatic ecosystem function across water year types. The rationales for Conditions 4, 5, and 6 similarly recognize the importance of elevated seasonal flows for channel maintenance, sediment transport, gravel mobilization, and large woody material recruitment below Project dams.

Although whitewater recreation flows could readily be structured to complement and advance these related hydrologic, geomorphic, and ecological objectives, the Draft WQC instead treats whitewater recreation flows as an isolated and infrequent flow component rather than part of an integrated annual spring flow management framework that simultaneously provides multiple benefits.

Beyond this broader conceptual deficiency, Condition 10 also lacks meaningful operative standards. As written, the condition establishes no enforceable requirements governing the magnitude, duration, or timing of whitewater recreation flows, instead leaving these critical elements to future determination through the Licensee's Whitewater Recreation Management Plan. This creates substantial uncertainty regarding whether the condition will ultimately provide meaningful recreational benefits.

The condition is also so constrained in the temporal frequency of the boating opportunity it provides as to be of limited practical value. A whitewater boating opportunity occurring only once every four years cannot reasonably be characterized as meaningful protection of flow-dependent recreational beneficial uses on a river that, absent Project diversions, would historically have provided boating opportunities year-round.

In addition, Condition 10 expressly anticipates circumstances under which the Licensee may forgo providing whitewater recreation flows altogether, further reducing the reliability and functional value of the condition. The condition also uniquely delays implementation by requiring submission of the Whitewater Recreation Management Plan within three years of license issuance — a timeline substantially longer than those applicable to other flow-related management plans required under the Draft WQC.

Although American Whitewater is identified as a consulting party in development of the Whitewater Recreation Management Plan, the Draft WQC inexplicably omits American Whitewater from both the recipients of whitewater recreation flow information identified in plan requirement (viii) and the entities for which documentation of consultation is required under plan requirement (x). As a practical matter, these deficiencies would postpone and

weaken implementation of meaningful whitewater recreation flow management under the Draft WQC.

Even assuming all scheduled flow events are ultimately implemented, the condition would provide a maximum of eleven planned boating opportunities over the course of a 50-year license term. Collectively, these limitations demonstrate that Condition 10 does not provide a meaningful operational framework for protection of flow-dependent recreational beneficial uses.

For these reasons, American Whitewater recommends that the State Water Board substantially revise Condition 10 to establish a recurring spring pulse flow management framework that meaningfully protects whitewater recreation beneficial uses while simultaneously advancing related hydrologic, geomorphic, and ecological objectives, as discussed further below.

III. Annual Spring Pulse Flows Provide a More Functional and Integrated Approach to Seasonal Flow Management

The Draft WQC recognizes through multiple flow-related conditions that elevated seasonal flows perform important hydrologic, geomorphic, and ecological functions, including sediment transport, channel maintenance, gravel mobilization, and transport and recruitment of large woody material. However, the Draft WQC's flow regime remains largely centered around minimum instream flows with relatively limited seasonal flow variability and no defined spring pulse flow. This shortcoming can be addressed by incorporating annual spring pulse flows that support ecological and fluvial processes while simultaneously providing whitewater recreation opportunities.

The DSEIR and rationale statements for Conditions 1, 4, 5, and 6 collectively recognize the importance of seasonal flow variability and spring flow processes in maintaining river function below McCloud Dam. These functions require not only minimum flows, but also seasonal flow patterns with sufficient magnitude, timing, duration, and rate of change to support fluvial and biological processes altered by Project diversions. Seasonal spring pulse flow transitions also provide important ecological cues and recruitment functions for aquatic species, including foothill yellow-legged frogs, where the timing, magnitude, duration, and rate of spring flow recession can directly influence breeding success, habitat availability, and annual recruitment opportunity. These concepts are also consistent with broader scientific understanding regarding environmental flow management, including the importance of seasonal flow variability, spring recession patterns, and functional flow components in maintaining geomorphic and ecological processes in regulated river systems.

The DSEIR's analysis of foothill yellow-legged frogs further identifies the importance of seasonal flow timing and hydrograph management. The DSEIR and associated BIO-1 mitigation recognize that elevated spring flows occurring during the natural high-flow season and prior to the onset of foothill yellow-legged frog breeding are consistent with natural seasonal hydrology.

The DSEIR analyzed elevated spring flow releases, including 500 cfs flow releases and spring flow events ranging from 500 to 900 cfs, together with associated timing, ramping, and aquatic species considerations. Similarly, the Draft WQC's rationale for Condition 10 recognizes that the McCloud River historically provided whitewater recreation opportunities under the natural hydrograph and identifies flow magnitude, duration, timing, frequency, and special-status species considerations as relevant components of recreation flow management.

Collectively, the Draft WQC, DSEIR, BIO-1 mitigation, and broader functional flow science support the use of recurring spring pulse flows as a mechanism for providing meaningful seasonal flow variability and associated hydrologic, geomorphic, ecological, and recreational functions below McCloud Dam.

American Whitewater's proposed revised Condition 10 builds upon these concepts by incorporating recurring spring pulse flows of sufficient magnitude, duration, timing, and gradual recession patterns to better reflect functional spring hydrograph processes and provide a more functional and integrated approach to spring flow management than the isolated and infrequent recreation flow structure currently reflected in Condition 10. As discussed below, American Whitewater proposes the following revised Spring Pulse Flow and Whitewater Recreation condition.

IV. Proposed Revised Spring Pulse Flow and Whitewater Recreation Condition

Consistent with the hydrologic, geomorphic, ecological, and recreational flow management concepts discussed above, American Whitewater proposes the following revised Condition 10. The proposed condition establishes annually recurring spring pulse flows and associated whitewater recreation opportunities designed to provide meaningful seasonal flow variability while simultaneously advancing related river process objectives recognized throughout the Draft WQC and DSEIR.

Unlike the Draft WQC's current once-every-four-years framework, the proposed condition would provide recurring annual spring pulse flow opportunities, establish defined flow magnitudes, durations, timing, and gradual recession provisions, and require development of the Spring Pulse Flow and Whitewater Recreation Plan within one year of license issuance consistent with other flow-related management plans required under the Draft WQC. Over the course of a 50-year license term, the proposed condition would provide up to fifty spring pulse

flow and whitewater recreation opportunities, although at shorter individual event durations than the Draft WQC's currently contemplated 11-day release structure. Representative implementations of the proposed spring pulse flow framework across multiple water year types, including integration with the Draft WQC's broader flow regime, are depicted in the flow plots provided in Attachment 2.

REVISED CONDITION 10: Spring Pulse and Whitewater Recreation Flows

Beginning in the first full spring season following license issuance, and annually thereafter by April 1, following consultation with the Forest Service, CDFW, USFWS, American Whitewater, California Sportfishing Protection Alliance, California Trout, Trout Unlimited, Winnemem Wintu Tribe (collectively, Consulting Parties), and State Water Board staff, Licensee shall establish dates for implementation of a minimum four consecutive day a spring pulse flow event designed to provide whitewater recreation opportunities in the McCloud River below McCloud Dam, including a minimum of two weekend days, and implement said flows.

Spring pulse flow releases below McCloud Dam shall occur only during the winter/spring high flow season (i.e., consistent with natural hydrologic timing of high flows). Whitewater recreation flows shall occur before the FYLF breeding season (e.g., when McCloud River temperatures reach 12 degrees Celsius, typically mid-spring but varies depending on the water year type and water temperature);

Licensee shall provide notice of scheduled spring pulse flow events to Consulting Parties and State Water Board staff no fewer than 14 days prior to implementation.

Spring pulse flow releases shall provide a minimum flow of 500 cfs as measured at the MC-7 gage. During Above Normal and Wet water year types, spring pulse flow releases shall provide a minimum flow of 700 cfs as measured at the MC-7 gage. Water year types shall be determined pursuant to Condition 1(A).

Spring pulse flow events shall be scheduled to coincide, to the maximum extent feasible, with the spring snowmelt runoff period and periods of elevated tributary inflow reflected in flows at the McCloud River near McCloud gage (MCD). Ramping rates shall comply with Condition 1(B)(1).

Licensee shall maintain year-round public road access immediately below McCloud Dam (Road 38N11) to allow for public access to the river.

> No later than one year following license issuance, Licensee shall submit a Spring Pulse Flow and Whitewater Recreation Management Plan (Spring Pulse and Whitewater Plan) to the Deputy Director for review and approval. The plan shall be developed in consultation with the Consulting Parties and State Water Board staff and shall be consistent with the requirements of this condition.
>
> At a minimum, the Spring Pulse and Whitewater Plan shall include:
> (i) Protocols for monitoring FYLF breeding during the first three years of spring pulse flows to verify that FYLF egg masses and tadpoles are not being scoured, washed out, or dewatered. The Licensee shall conduct FYLF monitoring in the vicinity of relicensing FYLF monitoring sites 119 (Lower McCloud River Mile [RM] 1.4), 120 (RM 1.7), and 122 (RM 2.0);
> (ii) Measures the Licensee will implement to facilitate whitewater boating opportunities, including consideration of measures to improve access to put-ins and take-outs such as parking and access path improvements, and snow plowing of access roads during spring pulse flow events;
> (iii) Monitoring and reporting of whitewater boating use;
> (iv) Procedures for dissemination of spring pulse flow schedules and information to the public;
> (v) Documentation of consultation with the Consulting Parties and a description of how the Spring Pulse and Whitewater Plan incorporates or addresses the comments and recommendations.
>
> The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Spring Pulse and Whitewater Plan, and any approved amendments thereto. The Licensee shall implement the Spring Pulse and Whitewater Plan upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

Because the proposed revised Condition 10 differs substantially from the Draft Order's current framework for spring pulse and whitewater recreation flows, the supporting rationale and findings should be revised to reflect the revised condition. American Whitewater has attached recommended revisions to the rationale supporting Condition 10 for the Board's consideration (Attachment 1).

V. Support for Condition 1(C) Real-Time Flow Information and Public Notification Requirements

American Whitewater generally supports Condition 1(C) and the Draft WQC's requirements related to real-time flow information, public access to gage data, and advance public notice regarding events affecting minimum instream flows. Real-time flow information is critically important for whitewater recreation, public safety, and trip planning, while also helping river users better understand overall river flow dynamics and Project operations. Publicly accessible real-time gage data at the MC-1 and MC-7 gages is particularly important in the McCloud River due to the highly flow-dependent nature of boating opportunities and the operational influence of Project diversions and releases. In addition to the requirement that the Licensee post real-time data to CDEC, American Whitewater also requests that real-time MC-1 and MC-7 gage data be made available to American Whitewater, along with Dreamflows, in a readily accessible, machine-readable format suitable for automated flow reporting and archiving.[1]

The rationale for Condition 1(C) should be expanded to recognize the important role that real-time flow information and advance public notification play in supporting safe recreational river use and public awareness of changing flow conditions. These functions extend beyond whitewater boating and benefit a broad range of river users and stakeholders.

American Whitewater also recommends that Condition 1(C) require the Licensee to directly notify interested stakeholders, including American Whitewater, of all known events that will affect minimum instream flows or flow conditions within Project reaches, including powerhouse outages, construction activities, planned operational changes, and similar events. This recommendation is particularly important in light of the Draft WQC's proposed whitewater recreation flow framework under Condition 10, where advance awareness of flow-related operational changes will be important for both public safety and effective implementation of any future spring pulse flow or whitewater recreation releases.

VI. American Whitewater Participation in the Long-term Ramping Rate Evaluation

American Whitewater requests that it be identified as a consulting party for the Long-term Ramping Rate Evaluation required under Condition 1(B)(1). The Draft WQC currently states that the purpose of the evaluation is "to determine if revised ramping rates are necessary to protect aquatic resources." However, ramping rates also directly affect flow-dependent recreational beneficial uses, including whitewater boating opportunities associated with spill, minimum

[1] American Whitewater provides flow and river information for nearly 6,500 whitewater boating runs nation-wide, including for the McCloud River from McCloud Dam to Shasta Reservoir.

instream flow transitions, and spring pulse flow releases. A meaningful portion of whitewater recreation opportunity occurs during flow ramp-up and ramp-down periods.

This recreational relevance is already recognized in the Draft WQC's Long-term Ramping Rate Evaluation provision, including evaluation item (iii), which requires assessment of which flows require ramping rates, including "boating flows." Accordingly, American Whitewater should be included as a named consulting party for the Long-term Ramping Rate Evaluation. American Whitewater also recommends that the stated purpose of the evaluation be expanded to include protection of beneficial uses in addition to aquatic resources.

Conclusion

American Whitewater and American Rivers respectfully request that the State Water Board revise Condition 10 and related findings to more fully integrate spring pulse flow management, ecological and geomorphic river processes, and protection of flow-dependent recreational beneficial uses. A recurring annual spring pulse flow framework would better reflect the Draft WQC's broader recognition that functional seasonal flow variability is essential to maintaining river processes, aquatic resources, and public beneficial uses below McCloud Dam.

Sincerely,

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Attachment 1: Rationale Supporting Revised Condition 10

Prior to Project construction, the natural hydrograph provided boating opportunities on the McCloud River. However, under the original license, the only opportunities for whitewater boating occur during spills over McCloud Dam. Contact and noncontact recreation, which include whitewater boating, are beneficial uses listed in the Central Valley Basin Plan for the McCloud River. In order to provide for these beneficial uses, PG&E proposed a boating recreation flow of 300 cfs over 11 days in its final license application. However, 300 cfs only provides for boating-based access to the river for fishing or camping, not whitewater boating. The minimum acceptable whitewater boating flow identified by the relicensing study RL-S3[2] was 500 cfs. PG&E's proposal would not provide adequate whitewater recreation opportunities.

Condition 10 establishes spring pulse flows below McCloud Dam to provide whitewater recreation opportunities during the winter/spring high-flow season while minimizing potential adverse effects to aquatic resources. Spring pulse flows would occur during periods generally consistent with the natural timing of elevated spring flows in the McCloud River and, to the maximum extent feasible, coincide with periods of snowmelt runoff and elevated tributary inflow. Annual implementation of spring pulse flows is intended to provide recurring seasonal flow variability and ecological and geomorphic functions associated with the natural hydrograph while ensuring regular and predictable whitewater recreation opportunities consistent with protection of recreation beneficial uses.

The condition establishes minimum flow magnitude, duration, scheduling, and notice requirements necessary to provide a meaningful whitewater recreation opportunity in the McCloud River below McCloud Dam. Because the river below the dam includes two distinct whitewater runs—a more challenging 3.5-mile reach from the dam to Ah-Di-Na commonly boated as a day trip, and a more remote 20.5-mile multi-day reach requiring advance planning and suitable access conditions—predictable scheduling and adequate flow duration are necessary to support recreation beneficial uses.

The spring pulse flow events would also support ecological functions associated with recurring seasonal flow variability in regulated river systems, including sediment transport, maintenance of channel margin and gravel habitats, floodplain and edgewater connectivity, aquatic species life-history cues, and seasonal hydrologic variability important to ecosystem function. These

[2] Nevares, Steve (PG&E), Doug Whittaker and Bo Shelby (Stillwater Sciences). 2009. Lower McCloud River Report on Recreation Flow Assessment (RL-S3). Technical Memorandum 24. Contained in PG&E's Application for New License for the McCloud Pit Project under P-2106, Volume III, Disc 3 of 14. FERC eLibrary Accession # 20090716-4024.

functions are complemented by other certification conditions addressing minimum instream flows, gravel augmentation, and large wood management intended to support broader geomorphic and ecological processes within the Project reaches. The spring pulse flow events would therefore provide ecological benefits beyond whitewater recreation while remaining consistent with the broader aquatic resource objectives of the certification.

The condition incorporates measures intended to minimize potential impacts to foothill yellow-legged frog breeding and recruitment by limiting spring pulse flows to periods prior to the onset of breeding activity and requiring monitoring during initial implementation of the condition. Monitoring results will provide information regarding potential effects to foothill yellow-legged frog egg masses and tadpoles and support adaptive implementation of the condition if necessary.

To ensure coordinated implementation, Condition 10 also requires development of a Spring Pulse Flow and Whitewater Recreation Management Plan addressing spring pulse flows, whitewater recreation management measures, monitoring, and consultation with resource agencies, Tribes, recreation organizations, and State Water Board staff.

Attachment 2: Flow Plots for Draft WQC Condition 1 & Revised Condition 10 Spring Pulse Flows

The following figures depict representative implementations of Draft WQC Condition 1 minimum instream flows together with American Whitewater's proposed revised Condition 10 spring pulse flows across different water year types.

Pulse flow timing shown in the figures is illustrative only and alternative timing scenarios could also be implemented consistent with the proposed condition. Depicted ramping rates are representative simplifications intended to illustrate operational integration of spring pulse flows within the broader Condition 1 flow framework, including use of a 200 cfs per 24-hour upramp rate and simplified downramp rates that do not distinguish between pre- and post-April 15 operational provisions contained in Draft WQC Condition 1(B).

An interactive HTML plot showing these flow scenarios together with observed unimpaired flows above McCloud Dam and regulated flows below McCloud Dam across multiple water year types is also available. The interactive plot allows users to zoom, pan, and toggle individual flow scenarios on and off for closer review.

To view, download this interactive HTML plot file from Google Drive, save the .html file to your computer, then open the downloaded file in a web browser.

The charts below were generated from this plot file.

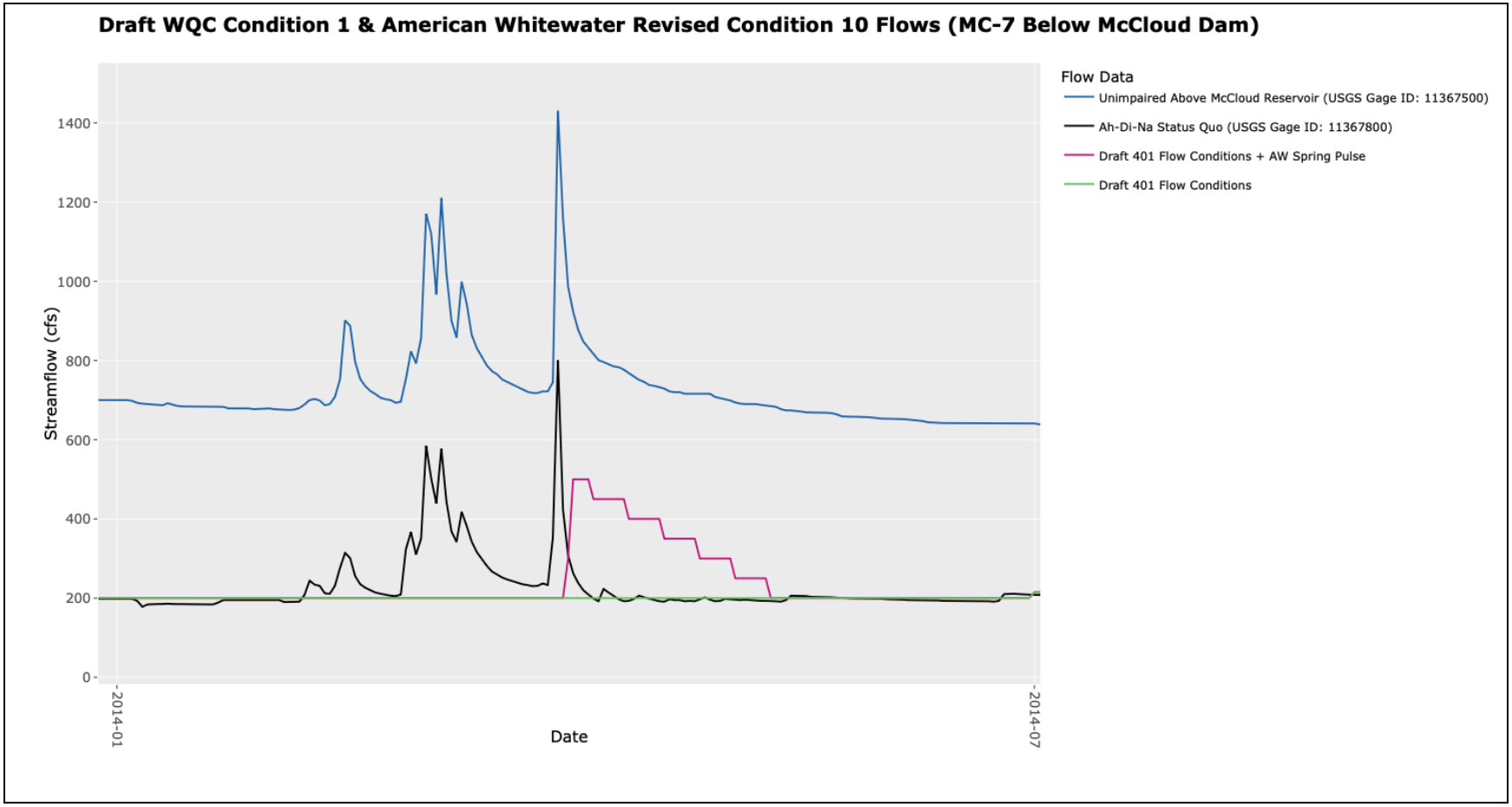

Figure 1. Critically Dry water year type (2014). Plot showing a representative implementation of **Draft WQC Condition 1 minimum instream flows** and **American Whitewater's proposed revised Condition 10 spring pulse flow** plus observed **unimpaired** and **regulated** hydrographs for a Critically Dry water year type.

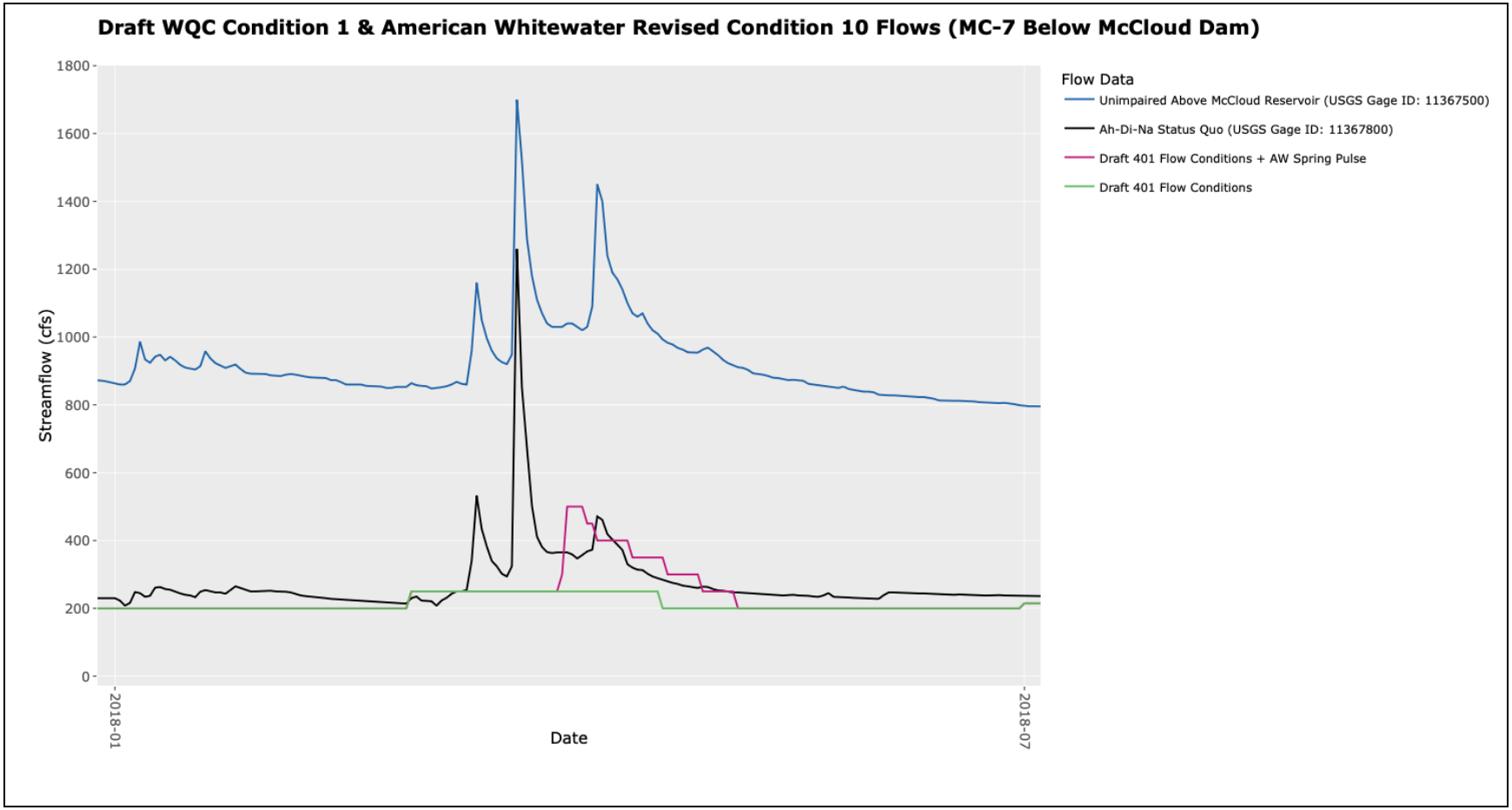

Figure 2: Dry water year type (2018). Plot showing a representative implementation of **Draft WQC Condition 1 minimum instream flows** and **American Whitewater's proposed revised Condition 10 spring pulse flow** plus observed **unimpaired** and **regulated** hydrographs for a Dry water year type.

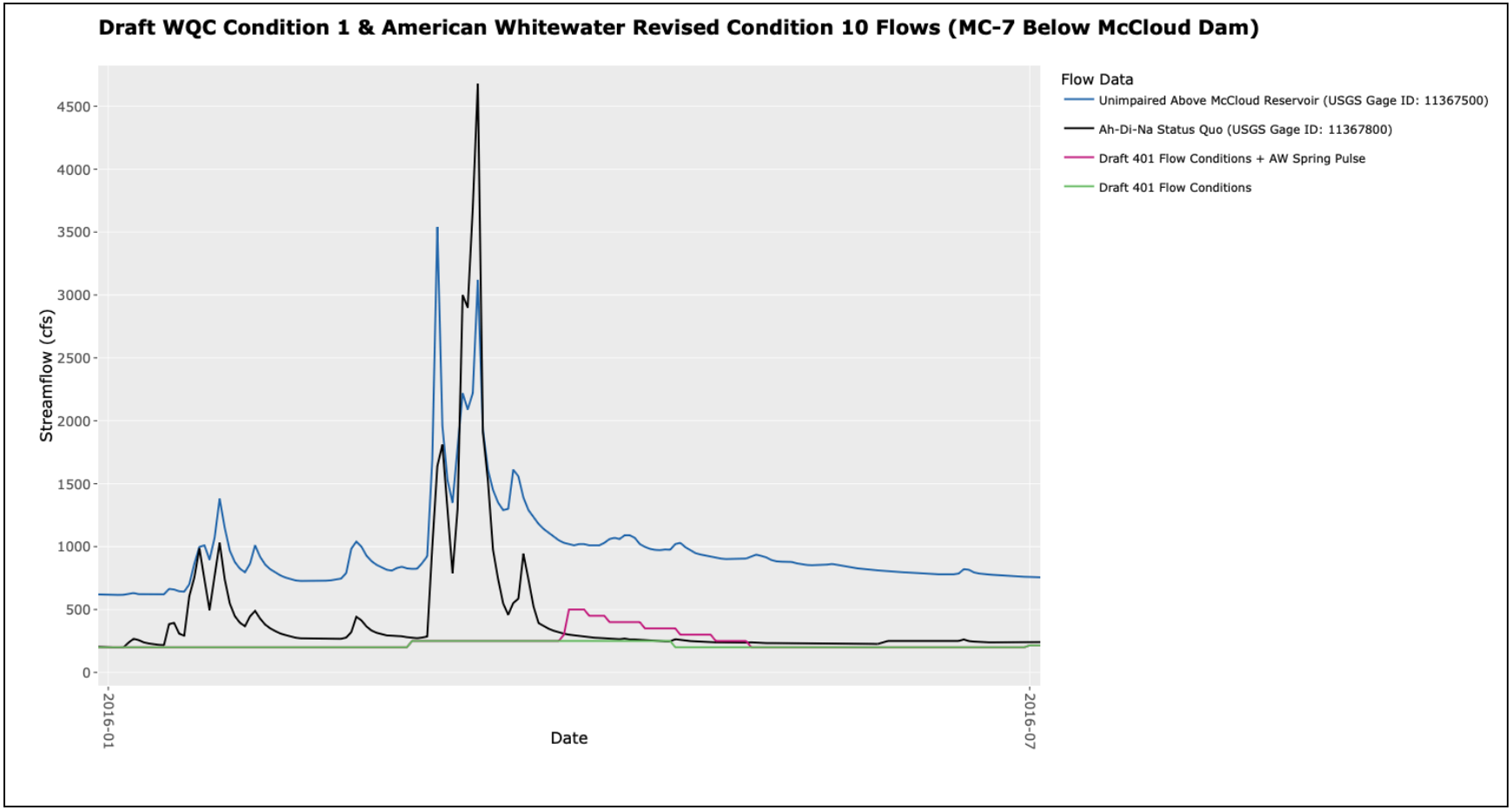

Figure 3: Below Normal water year type (2016). Plot showing a representative implementation of **Draft WQC Condition 1 minimum instream flows** and **American Whitewater's proposed revised Condition 10 spring pulse flow** plus observed **unimpaired** and **regulated** hydrographs for a Below Normal water year type.

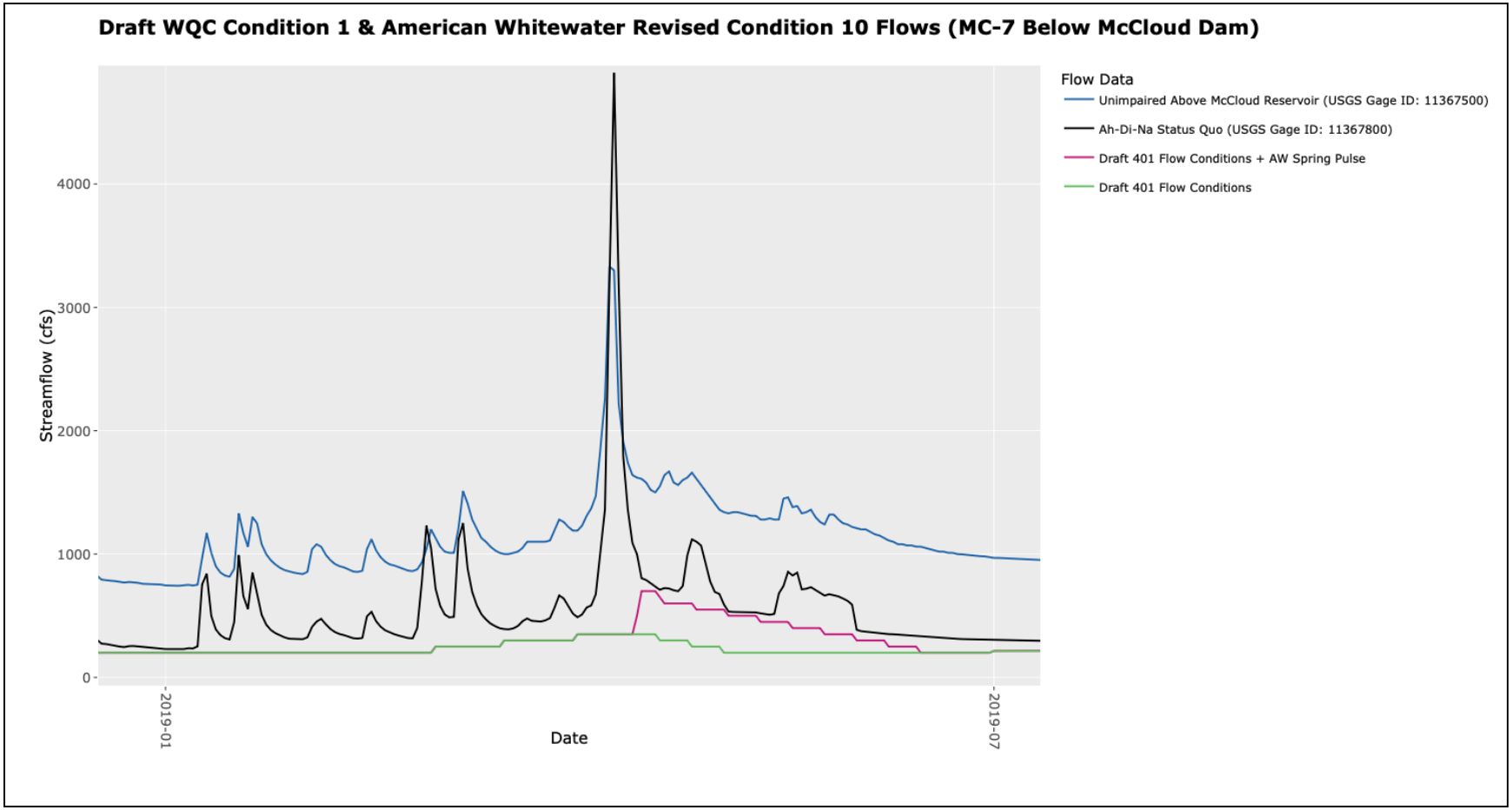

Figure 4: Above Normal water year type (2019). Plot showing a representative implementation of **Draft WQC Condition 1 minimum instream flows** and **American Whitewater's proposed revised Condition 10 spring pulse flow** plus observed **unimpaired** and **regulated** hydrographs for a Above Normal water year type.

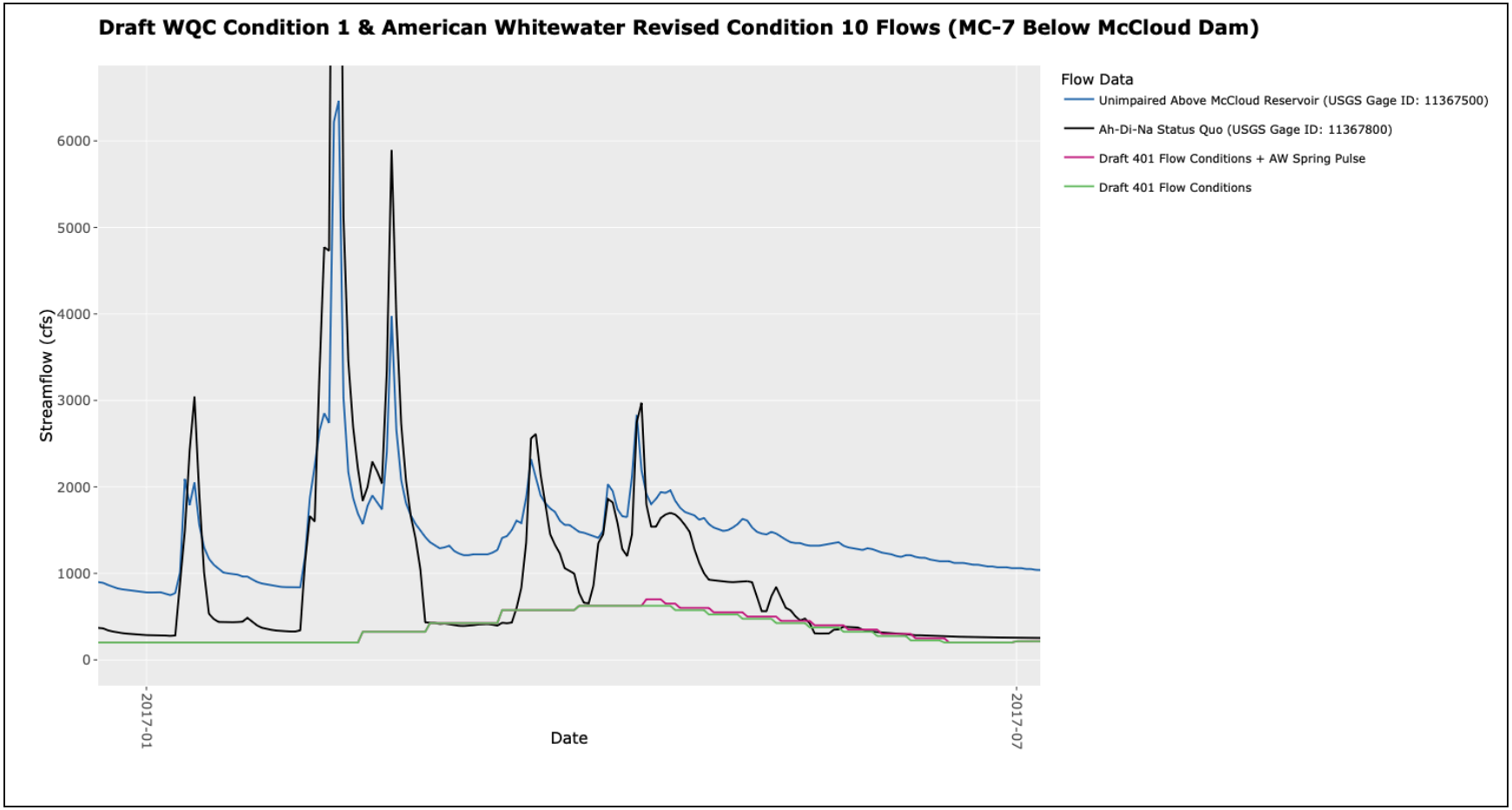

Figure 5: Wet water year type (2017). Plot showing a representative implementation of **Draft WQC Condition 1 minimum instream flows** and **American Whitewater's proposed revised Condition 10 spring pulse flow** plus observed **unimpaired** and **regulated** hydrographs for a Wet water year type.