

BEFORE THE COLORADO WATER CONSERVATION BOARD

STATE OF COLORADO

Rebuttal Statement of Staff of Colorado Water Conservation Board

IN THE MATTER OF STAFF'S RECOMMENDATIONS FOR AN INSTREAM FLOW APPROPRIATION ON THE DOLORES RIVER, WATER DIVISION 4

Pursuant to Rule 5n (2) of the Rules Concerning the Colorado Instream Flow and Natural Lake Level, 2 CCR 408-2 ("ISF Rules"), the Staff of the Colorado Water Conservation Board ("CWCB") hereby submits its Rebuttal Statement in support of Staff's recommendation for an instream flow ("ISF") appropriation on the subject reach of the Dolores River (the "Dolores ISF").

Introduction

The Board declared its intent to appropriate an ISF water right on this segment of the Dolores River at its January 2014 meeting. On June 30, 2015, Staff submitted its Prehearing Statement ("PHS"), supporting the following three determinations: (1) there is a natural environment that can be preserved to a reasonable degree if the CWCB's water right is granted; (2) the natural environment will be preserved to a reasonable degree by the water available for the appropriation; and (3) such environment can exist without material injury to water rights ("the Three Determinations"). Specifically, Staff's PHS set forth evidence demonstrating that the ISF rates claimed on the Dolores River: (1) are based upon standard scientific methodology, including accurate R2Cross and PHABSIM (Physical Habitat Simulation) analyses; (2) reflect the amount of water available for the appropriation; (3) are necessary to preserve the identified natural environment to a reasonable degree; and (4) will not materially injure water rights.

"In a hearing on a contested ISF appropriation, a Party may raise only those issues relevant to the statutory determinations required by § 37-92-102(3)(c), C.R.S. and the required findings in Rule 5i." ISF Rule 8j. Thus, the parties should not raise issues aside from the Three Determinations listed above. Nevertheless, the Opposers' Notices to Contest and PHSs are general in nature and fail to provide any evidence or technical data to refute the Three Determinations or the methodologies used to develop the Dolores River ISF recommendation. Considering Opposer Colorado River Water Conservation District's ("River District") concession that "the proposed Dolores River ISF will leave a significant amount of unappropriated water remaining for development in the basin," the Opposers focus their arguments on policy-based issues or proposed alternatives to the proposed Dolores ISF. This rebuttal will:

- I. Discuss important policy issues that strongly support moving forward with the Dolores River ISF appropriation.

- II. Address Opposers' policy-based issues and proposed alternatives.
- III. Reinforce that the Three Determinations are supported by evidence.

I. Policy Issues that Strongly Support the Dolores River ISF Appropriation

1. The Dolores ISF will support the purposes of the Three Species Agreement among 6 states in their efforts to prevent an Endangered Species Act listing.

One of the most significant risks to water development in the Colorado River Basin, which includes the Dolores River and its tributaries, is the listing of native fish in the basin as threatened or endangered under the Endangered Species Act. In an effort to prevent the listing of three declining native fish species (roundtail chub, bluehead sucker, and flannelmouth sucker), Colorado Parks and Wildlife ("CPW"), five other Colorado River Basin state wildlife agencies, three federal agencies (including the Bureau of Land Management "BLM"), and two sovereign tribes entered into a range-wide conservation and strategy agreement that provides the framework for conservation actions designed to preserve these fish species ("Three Species Agreement"). The U.S. Fish and Wildlife Service relies on implementation of the Three Species Agreement to protect and conserve these three native warm-water species.

The proposed Dolores ISF supports and implements the Three Species Agreement. As noted in the BLM Resource Management Plan ("RMP") and Environmental Impact Statement ("EIS"), the subject reach of the Dolores River provides a critical connection between numerous aquatic habitats that are important for sensitive fish, including the flannelmouth sucker, bluehead sucker, and roundtail chub. These fish are year-round residents throughout the reach, and also utilize tributaries of the Dolores River for spawning purposes, including Mesa Creek, Roc Creek, and Blue Creek. Together with these tributaries, the lower Dolores River provides one of the few places in Colorado with largely natural flow regime timing at low elevations. The lower Dolores River and its tributaries provide a very important interconnected aquatic habitat that insures the continued viability and genetic diversity of these populations. *See* BLM RMP and EIS, Vol. 4, Appendix CWCB, 3-34.

The proposed Dolores ISF will directly fulfill Section VII(6) of the Three Species Agreement, which agrees to "[e]nhance and maintain habitat for roundtail chub, bluehead sucker, and flannelmouth sucker." Successful implementation of the Three Species Agreement in the Dolores River Basin would alleviate potential impacts to water users resulting from an Endangered Species Act consultation on a project impacting a threatened or endangered species and its critical habitat. Thus, appropriating the Dolores ISF will support the purposes of the Three Species Agreement and help prevent an Endangered Species Act listing.

2. The Board's appropriation of the Dolores ISF supports a partnership approach with the BLM to protecting resources on BLM lands.

In 2015, the Grand Junction Office of the BLM released its Proposed RMP and Final EIS. The BLM determined that an approximately 10.38 mile reach of the Dolores River, which is within the proposed Dolores ISF reach, is suitable for Wild and Scenic designation. The BLM determined that the Dolores River segment is suitable because it provides for optimal management of the Outstandingly Remarkable Values ("ORVs") present in that segment, including Scenic, Fish, Recreation, Geologic, and Paleontological. The Proposed RMP states the following regarding the proposed Dolores ISF water right:

"The BLM believes that the strict land management standards associated with a suitability determination, combined with a state-based instream flow water right to support flow-dependent values, will assure long-term maintenance of the ORVs. To support this long-term partnership approach, the BLM's suitable determination includes the following finding: If the Colorado water court system decrees an instream flow water right for the lower Dolores River in the locations, flow rates, and timing appropriated by the CWCB at its March 2014 board meeting, and if the instream flow right is vigorously enforced by the CWCB, the BLM does not believe it would be necessary to quantify, assert, or adjudicate a federal reserved water right if this segment is ultimately designated into the National Wild and Scenic Rivers system."

See BLM RMP and EIS, Vol. 4, Appendix C, 3-30 -- 3-36. Thus, if the Board appropriates the proposed Dolores ISF, the BLM has committed to not adjudicate or assert federal reserved water rights if this segment is ultimately designated into the National Wild and Scenic Rivers system, which provides regulatory certainty to water users and directly implements the December 21, 2011 Memorandum of Understanding among the Department of Natural Resources, CWCB, and BLM.

3. The Dolores ISF will further the goals of the Dolores River Dialogue and the Lower Dolores Plan Working Group, which are focused on a reach of the Dolores River upstream of the subject Dolores ISF reach.

On page 3 of its PHS, the River District asserts that moving forward on the proposed Dolores ISF water right is premature "given the emerging consensus from the stakeholder-driven Dolores River Dialogue regarding land use designations and determinations to best protect both the natural environment and Colorado's reasonable opportunity to develop and use its water resources." However, the activities of both the Dolores River Dialogue and the Lower Dolores Plan Working Group focus on the reach of the Dolores River extending from McPhee Dam down to Bedrock, approximately 11 miles above the upper terminus of the proposed Dolores ISF water

right. Consequently, delaying the proposed Dolores ISF water right would have no effect on those activities.

Additionally, the proposed Dolores ISF will further the goals of those stakeholders by maintaining native fish habitat, and will not interfere with their ongoing work. That work includes proposing federal legislation to establish a National Conservation Area along the Dolores River corridor above Bedrock as a way to ensure protection of ORVs identified by the BLM and the U.S. Forest Service and provide an alternative to a finding of suitability for Wild and Scenic designation, while maintaining and protecting water rights, including uses of the Dolores Project. Those ORVs include the roundtail chub, bluehead sucker, and flannelmouth sucker, the focus of the Group's Implementation, Monitoring, and Evaluation Plan for Native Fish, completed in June 2014. The Plan identifies ways to improve the status of native fish in the Dolores River below McPhee Reservoir, specifically the roundtail chub, bluehead sucker, and flannelmouth sucker – the very same fish species that will benefit from the proposed Dolores ISF.

II. Arguments Addressing Opposers' policy-based issues and proposed alternatives.

1. The proposed Dolores ISF will not deprive the people of the State of Colorado of the beneficial use of those waters available by law and interstate compact.

a. Compact Issues

The Opposers argue that the proposed Dolores ISF will negatively impact Colorado's ability to develop its compact entitlements. Colorado's right to consumptively use the waters of the Colorado River Basin is limited by interstate compacts, statutes, a U.S. Supreme Court Decree, and a Treaty with Mexico, which are collectively known as the "Law of the River." Colorado's entitlement under the Law of the River is to the consumptive use of water for beneficial purposes. Thus, nonconsumptive uses such as hydropower rights, CWCB ISF water rights, and other in-channel uses such as RICD water rights do not count against Colorado's entitlement.

The adjudication and administration of an ISF water right, in and of itself, does not develop and place to consumptive beneficial use any of Colorado's entitlement to Colorado River water.

Colorado's entitlement under the Law of the River is made to the state as a whole, meaning that Colorado may develop its compact entitlement in all or any one of the tributaries to the Colorado River in accordance with Colorado water law. To the extent Dolores River water would flow out of the state after use under the Dolores ISF and other water rights downstream of the ISF reach, that amount of water may be developed in other areas of the Colorado River basin, including the San Juan, Gunnison, and Yampa Rivers, and the Colorado River mainstem.

Moreover, section 37-92-102(3), C.R.S. (2014) provides that “[N]othing in this article shall be construed as authorizing any state agency . . . to deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact.” Recreational in-channel diversions (“RICDs”) are held to a much stricter standard, which is whether their adjudication and administration “would materially impair the ability of Colorado to fully develop and place to consumptive beneficial use its compact entitlements.” Section 37-92-102(6)(b)(I), C.R.S. (2014). The CWCB takes it role, as informed by these statutes, very seriously. While the state’s water courts have decreed several RICDs that exceed 1,500 cfs, with some resulting in rivers being over appropriated, no court has found that a RICD impaired the ability of Colorado to develop its compact entitlements. Here, the proposed Dolores ISF rates are 900 cfs for 61 days; 400 cfs for 30 days; 200 cfs for 59 days; and 100 cfs for approximately 213 days. The proposed Dolores ISF would leave 58% of the mean flow volume available for future development. As acknowledged by the River District on page 2 of its PHS, this “will leave a significant amount of unappropriated water remaining for development in the basin.”

b. Potential Future Development

Importantly, there are sufficient water rights in place to meet future development needs in the most likely areas of development. For example, in the Southwest Basin Roundtable, Basin Implementation Plan¹ (p. 37) San Miguel County identified a projected demand increase of 2,900 to 6,000 AF per year. However, the plan also indicates that this potential gap can be met by growth into existing supplies. Further, one of the most likely places for future municipal and domestic use of water within the basin would be on the San Miguel River below the senior CC Ditch where Montrose County holds water rights to address future development needs. The Basin Implementation Plan (p. 94) notes that Montrose County provided a new multi-purpose IPP within the Southwest basin that will provide a reliable source of water for municipal and industrial demands over the next 50 years. “The project will address the 3,200 AF gap between existing water supplies and demands projected to occur by 2060 in the western portion of Montrose County.” Including the new Montrose County reservoirs identified in the IPP, there are already 25 conditional water rights for reservoirs larger than 500 AF with a total cumulative volume of 369,000 AF in the San Miguel River basin. Table 1 below shows that within the Dolores River Basin as a whole, there is close to 533,000 AF of decreed conditional water rights planned to address future consumptive uses.

¹ CWCB PHS Exhibit 15.

Table 1: Illustration of more than 500,000 AF in conditional storage rights in the Dolores River drainage basin that could be used to meet future development needs:

Division	District	Name	Number of Reservoirs	Total AF
4	63	Dolores River Basin	4	2,583
4	60	San Miguel River Basin	25	369,599
4	61	Paradox Creek	1	3,600
7	69	Disappointment Creek Basin	1	1,500
7	70	West Dolores Creek / Tribs	9	155,607
			Total	532,889

As shown above, numerous conditional storage rights exist in the basin; however, the Dolores ISF is not the impetus for development of these projects or for potential “buy and dry” of agricultural lands. The municipal and industrial uses referenced by SWCD would require firm yield provided by storage regardless of the Dolores ISF due to hydrologic variability in the region. The small scale depletions referenced by the River District could be met with exempt wells or small augmentation ponds, which are common throughout Colorado, and not by large and expensive reservoirs. The Board may also address future develop needs through its injury with mitigation process under ISF Rule 9.

In conclusion, given the availability of water for future development, the large volume of existing conditional water rights, and the fact that the Southwest Basin Implementation Plan already contains IPPs to address identified future uses, the proposed Dolores ISF will not deprive the people of the state of Colorado of the beneficial use of those waters available by law and interstate compact. In addition to leaving a significant amount of unappropriated water for development in the basin, the ISF will protect critical habitat for three native fish species, alleviating one of the most significant risks to water development by helping to prevent a listing of native fish in the basin as threatened or endangered under the Endangered Species Act. Such a listing would present a significant impediment to developing Colorado’s compact entitlements.

2. The Board does not have authority to allow injury to its instream flow water rights.

Opposers argue the Board has broad discretion to impose various conditions on the proposed Dolores ISF: (1) allowing the claimed amount to be reduced by junior appropriations for municipal or industrial uses in the amount of one percent of the weighted average of the proposed Dolores ISF rate; (2) reducing the claimed flow rates by an amount equal to the error rate in gaging; or (3) setting aside a “depletion allowance” for unknown future water users. The Board does not have discretion to impose any of these proposed conditions on the Dolores ISF.

a. The Board cannot allow injury to an ISF water right except under the injury with mitigation rule.

Both the proposal of a “depletion allowance” and allowing “small scale impacts” to ISFs violate established law. First, the CWCB has a fiduciary duty to protect its existing ISF water rights under *Farmers Water Dev. Co. v. Colo. Water Conservation Bd.*, 2015 CO 21, ¶¶ 5, 10, 11 and *Aspen Wilderness Workshop, Inc. v. Colo. Water Conservation Bd.*, 901 P.2d 1251, 1257 (Colo. 1995). In *Aspen Wilderness*, the Court noted that the Board “initiates water appropriations in fulfillment of its unique statutory duty to secure and appropriate the ‘minimum stream flow’ necessary to preserve the natural environment.” There is also a “unique statutory fiduciary duty between the CWCB and the people of this State,” requiring the CWCB to “confine its appropriations and other actions to the express statutory purpose of maintaining minimum stream flows necessary to preserve the natural environment to a reasonable degree.” *Id.* at 1256-7. Thus, the Board fulfills its duty to the people of Colorado by first appropriating ISFs and then by protecting them.

The Board fulfills its duty to appropriate ISF water rights on behalf of the people by determining what minimum amount of available water is necessary to preserve the natural environment to a reasonable degree and claiming only that amount. The Board fulfills its fiduciary duty to protect ISF water rights on behalf of the people by preventing injury to ISFs unless it has balanced the injury against a proposal to mitigate such injury under Rule 8i.(3). To claim in water court that the Board is seeking the minimum amount necessary to preserve the natural environment but then also inform the water court that: (1) that “minimum” amount is going to be diminished by an unknown water user; or (2) that the “minimum” amount contains 1% more water than necessary in order to allocate that 1% to unknown persons is contrary to common sense and established case law. To claim in water court that the Board is seeking the minimum amount necessary based upon established scientific parameters precludes allowing subsequent injury without mitigation – regardless of whether the Board decides to allow injury prior to filing the application.

Claiming a set volume of water for an ISF to preserve the natural environment and then “carving out” an amount of water from that ISF to allow consumptive uses by other water users violates the precepts of Aspen by reducing the amount of water that was determined necessary to preserve the environment to a reasonable degree. It is simply disingenuous to tell the water court that a certain amount of water is needed to protect the natural environment and then carve out a portion of that water.

Further, the River District, noting that the CWCB clarified its *de minimis* rule “from a no-call determination against small depletions to simply a determination not to oppose an application for a *de minimis* depletion,” argues that the Board should allow such injury to its ISFs.

Nevertheless, the River District also notes that “this policy change is consistent with the

decision in *Aspen*....” PHS, p. 4. The River District makes the distinction that allowing injury before appropriating the ISF is different than allowing it after the appropriation. However, the CWCB simply cannot fulfill its statutory duties by seeking the minimum amount of water if that minimum is reduced to accommodate future unknown uses. The Board does not have discretion to appropriate more or less than the minimum amount necessary in order to allow unidentified future water users to appropriate junior water rights that will be deemed senior in priority to an ISF water right at some unknown time in the future.

b. The Board cannot claim a water right priority that allows an allocation of water for unidentified junior water users.

Under well-established case law, the Board does not have discretion to appropriate a minimum amount of water to preserve the natural environment that would also allow unidentified junior water users to appropriate senior in priority to that ISF water right at some unknown time in the future.

As recognized by Opposer Southwestern Water Conservation District (“Southwestern”), “the Board can appropriate no more water than necessary to preserve the natural environment to a reasonable degree,” and the Board’s “discretion must be exercised in the best interests of the people of Colorado.” Southwestern PHS, p. 3. Nevertheless, Southwestern suggests that the Board appropriate the minimum flow necessary to preserve the natural environment but provide for a depletion allowance for future municipal or industrial uses. If the Board is appropriating the minimum amount necessary on behalf of the people of Colorado, allowing injury to that right means that the Board is no longer appropriating the minimum amount necessary and fails in its fiduciary duty.

Claiming a minimum amount of water for a non-consumptive environmental use of water and then allowing a depletion allowance for unknown future consumptive uses constitutes speculation. In *Pagosa Area Water and Sanitation Dist. v. Trout Unlimited*, 170 p.3d 307 (Colo. 2007), the Court held that neither a private nor a governmental agency may obtain a right to use a portion of the public’s water unless it establishes intent to make a non-speculative appropriation.

Unlike recreational in-channel diversions, which are subjectively based on what boaters like, ISF water rights are limited to the minimum amount necessary based upon objective and scientific data established over years of study. Over the history of the ISF Program, the CWCB has relied upon standard quantification methodologies (R2CROSS & PHABSIM) as utilized by CPW biologists to scientifically quantify minimum flows. Additionally, the Board has a fiduciary duty to appropriate only the minimum amount – no more or less – on behalf of the people of the State. No such duty exists with regard to boating flows. Allowing some unknown future use to appropriate some of the minimum amount of water needed to preserve the natural environment is speculative and the Board should reject such a proposal.

Even if the Board could and did provide the proposed depletion allowance, which it cannot, such an allowance would have the potential to be in priority only 37% of the year. These times would be March 15 to July 14, and August 1 to August 14. If the San Miguel River ISF and Dolores River ISF above the confluence were already in a position to call, then the Dolores ISF below the confluence would not be able to call for more water than these senior upstream ISF rights.

c. The Board cannot allow injury to any ISF water right to address inherent measurement errors in gaging.

Southwestern argues that “[m]easurement error, if not accounted for, will enlarge the intended appropriation causing unintentional appropriation of water the Board may intend to leave available for appropriation.” PHS, p. 7. However, Southwestern concedes that the error rate could also decrease the intended appropriation by -5%. PHS, p. 7. Thus, under Southwestern’s argument, the measurement error, if not accounted for, could decrease the intended appropriation and the CWCB should appropriate an additional 5% in this case to account for such potential measurement errors. On balance, the potential for error that could reduce or enlarge the ISF is not a proper rationale for arbitrarily reducing the minimum amount necessary to preserve the natural environment to a reasonable degree.

All measurements devices and techniques, which are the components that make up a river gage, have some measurement error. DWR staff administers all water rights using gaging stations and Parshall flumes (sometimes other types of weirs or flumes), which they know have some error. Most water users are aware that water measurement is not perfect and abide by DWR’s administrative decision. CWCB, like all other water users, should not appropriate less (or more) water than necessary based upon potential measurement errors that could also cause the opposite effect or could be rectified at some point in the future. Finally, technologies change and improve, and reducing the appropriation now could prove to have negative effects in the future. Under Southwestern’s argument, every user should appropriate less water than necessary in order to prevent measurement error. Because this approach can also lead to appropriating less water than necessary, the Board should reject it.

The River District makes a similar argument, stating that since future depletions within the range of sensitivity of a gage cannot be accurately measured, the CWCB should consider such small depletions *de minimis* and non-injurious. However, this is a common administrative problem that should be left to the Division Engineer to address if and when a call is placed. Further, as discussed in Section II 2.a. above, the Board cannot accept such injury to its water rights by appropriating more or less than the minimum amount necessary.

3. The Board does not have a statutory duty to correlate the needs of mankind with preservation of the environment, but nevertheless has effectuated a proper balance of both in this case.

The River District argues that the CWCB has “statutory direction to correlate the activities of mankind with some reasonable preservation of the natural environment” and that the Board has an obligation to ensure the ISF does not “deprive the people of the beneficial use of those waters available by law and interstate compact.” River District PHS, p. 3.

A simple review of sections 37-92-102(2) and 37-92-102(3) shows that the “correlation” language is a preamble referring to the act of the General Assembly in promulgating the ISF statute to correlate the activities of mankind with some reasonable preservation of the natural environment. Similar preamble language is used in section 37-92-102(2), where the General Assembly starts by “[r]ecognizing that previous and existing laws have given inadequate attention to the development and use of underground waters of the state” and goes on to set forth some general requirements, such as preventing reduction of lawful diversions. Similarly, in section 37-92-102(3), the General Assembly starts by “[f]urther recognizing the need to correlate the activities of mankind,” and goes on to authorize the CWCB to appropriate instream flow water rights. The promulgation of section 37-92-102(3), authorizing and defining ISF water rights, is the General Assembly’s act of correlating the needs of mankind with preservation of the environment – not a statutory directive for the CWCB to consider prior to appropriating ISF water rights. In recognizing the need to correlate the activities of mankind with some reasonable preservation, the General Assembly authorized the ISF Program and a process by which the Board could appropriate those minimum amounts to preserve the natural environment to a reasonable degree. That process involves staff investigations and the identification of scientific facts that support the Board’s three required statutory determinations.

Nevertheless, this Board did consider the needs of mankind along with the need to preserve the natural environment in this case. For example, the Board delayed its decision to appropriate, thereby giving any potential water users a year or more in which to file for senior water rights. By using average or median hydrographs to assure that adequate water remains available for Colorado’s citizens to develop if the need arises, the Board generally balances the needs of the environment with those of mankind. Thus, in this case there is a significant amount of unappropriated water remaining for development in the basin. In fact, the StateMod Baseline simulations suggest on average 273,000 AF of unappropriated water.

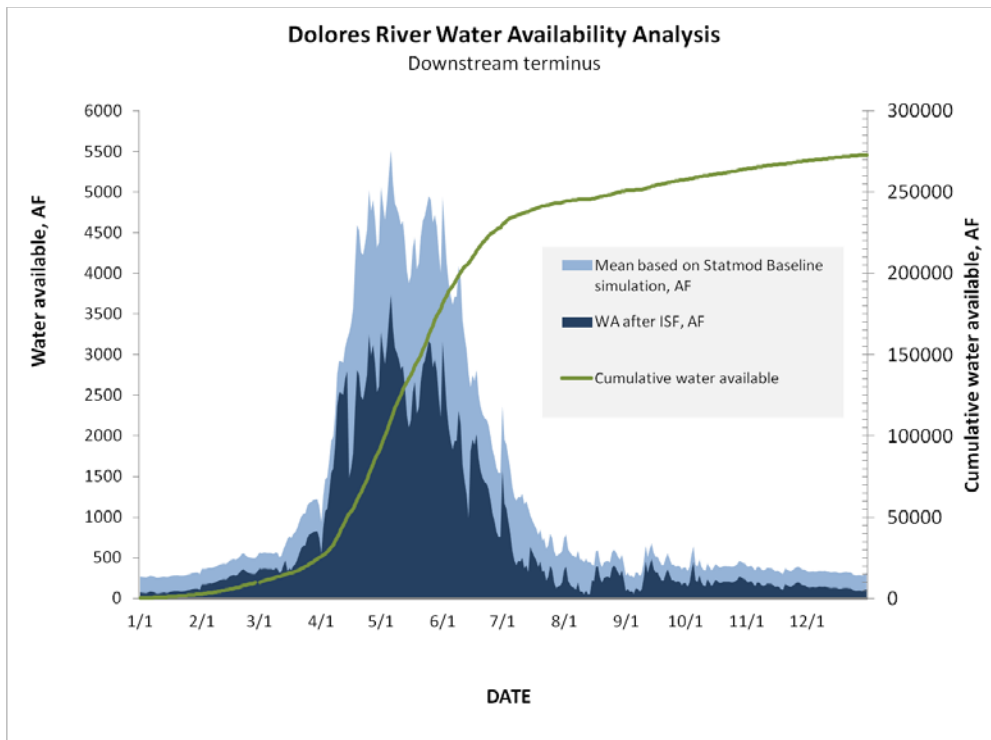


Figure 1: Significant water is available for future development.

Opposers have failed to identify where any future uses would occur, what those uses would be or the amount of water needed, but generally allege there is a “little guy” out there who will have to augment depletions. Yet, the amount of land in private ownership within the proposed Dolores ISF reach that could be developed in the future is severely limited. There are few existing private inholdings within the canyon areas on the actual 34.2 mile long segment of the proposed Dolores ISF. In addition, most of these inholdings already have senior water rights associated with them. Only 5% of the land in the Lower Dolores watershed from the confluence with the San Miguel River to the confluence with West Creek is in private ownership, with the remaining 95 % of lands in public ownership. Most new uses are likely to be associated with private domestic users that could obtain exempt wells.

Further, there are multiple other senior water rights on the San Miguel and Dolores Rivers that could limit future development by “small users” far in advance of any Dolores ISF call. Even on the proposed Dolores ISF reach, during extreme droughts such as in 2002, the Dolores ISF may not be the calling right. Flows in 2002 were in the single digits for much of July and August based on the Statemod simulation results and the sum of the Dolores River near Bedrock (USGS 09171100) and San Miguel River near Uravan (USGS 09177000) gages. There are 42.9 cfs in absolute senior rights and an additional 51.6 cfs in conditional senior rights on the Dolores River below the confluence with the San Miguel River. Any new junior water rights would likely need to augment depletions to satisfy senior water rights, regardless of the Dolores ISF appropriation.

Finally, the Board has broad discretion to address any actual future needs of mankind by allowing water users to provide mitigation where development needs require some injury to the ISF. Therefore, since: (1) no water rights were filed during the delay; (2) the Southwest Basin Roundtable's Basin Implementation Plan provides for the projected gap in supplies; and (3) the Opposers have not identified any actual additional needs or users, the Board has balanced the needs of mankind with preserving the natural environmental and should move forward with this appropriation.

III. The Three Determinations

1. Natural Environment

Opposers do not appear to question whether there is a natural environment based on review of the Notices to Contest and the Prehearing Statements. Opposers do question the quantification methodologies used to recommend the minimum flows necessary to preserve the natural environment to a reasonable degree.

- a. A natural environment exists and the flow amounts necessary to preserve the natural environment have been correctly quantified by appropriate scientific methodologies.**

The BLM and CPW, as the recommending agencies, have coordinated to provide sufficient biological evidence demonstrating the existence of a natural environment on the Dolores River and to quantify the minimum amount of water necessary to preserve the natural environment to a reasonable degree. Further, Staff and the Board rely upon the biological expertise of CPW as the basis for the Board's determination that a natural environment exists. Consequently, Staff defers to CPW and BLM's rebuttal statement regarding the scientific basis for the existence of a natural environment and the biological flow recommendation.

It is important to again note that while the legislature recognized the need to correlate the activities of mankind with some reasonable preservation of the natural environment, the Board is guided by the scientific facts that define the specific minimum amounts that are reasonable for preservation.

- b. It is not appropriate to compare ISF rates between different stream reaches.**

The River District's PHS states that the amount of water claimed by the ISF is large compared to other recent large river ISF appropriations, implying that the Board's claimed flow amounts exceed the minimum amount necessary for reasonable preservation. However, it is not reasonable to directly compare ISF flow rates on different rivers because the hydrology, channel geometry, slope, bed material, and habitat requirements of the indicator species differ among

river systems. Even if direct ISF rate comparisons between river systems were appropriate, it is incorrect to compare the annual volume of water to the ISF rates. Quantification of ISF rates is unrelated to annual volumes and annual volumes do not provide information about the typical timing and magnitude of streamflow throughout the year. Comparing ISF rates between streams is not appropriate or meaningful.

2. Water Availability

The CWCB is required to determine whether the natural environment will be preserved to a reasonable degree by the water available for the appropriation. This determination is based on a hydrologic analysis of water availability. Throughout the ISF Program's history, the Board has defined water availability for preservation of the natural environment as the *mean flow of a stream as determined at the downstream terminus of a proposed ISF reach*. If a proposed recommendation falls below the mean flow determined at this point, water is considered available for appropriation. Although the Board has chosen mean flow conditions to indicate water availability, CWCB staff and recommenders have further refined these analyses to be more rigorous and to prevent the effects of rare extreme high flow events from skewing the results. Therefore, staff uses median flow statistics (50 percent exceedances or the flow equaled or exceeded 50% of the time) to better define water availability for ISF water rights. In general, median is a more rigorous descriptor of central tendency that reduces the effect upon computation of daily values of extreme flows that have a smaller role in the long-term formation and maintenance of channel morphology and physical habitat.

Staff evaluates median flows using the best available data and the best available analysis method for that data. Whenever possible, staff uses long-term stream gage data (period of record 20 or more years). Use of long-term records helps ensure that the analysis is representative of a range of conditions, including periods of wet and dry hydrology.

The instream flow reach on the Dolores River receives water from the Dolores River, the San Miguel River, and a number of small tributaries that enter the reach between the confluence of the Dolores and San Miguel Rivers and the proposed lower terminus. The upper Dolores River basin represents a complex system that has changed through time as different water projects have been implemented. The Dolores Project, which includes McPhee Dam and nearly 200 miles of canals, tunnels, pipelines and laterals, was implemented between 1980 and 1999 to 2000 (Ken Curtis - Dolores Water Conservancy District, personal communication). Despite the complexities of the Dolores River hydrology, Staff conducted the water availability analysis using the Board's standard methods. Staff determined median flows using the Colorado Decision Support System (CDSS) Statemod model, which simulated current operation of the completed Dolores Project using historical hydrologic data for a long period of record. Staff selected this model for the final water availability analysis because it represents the best available data and analysis method, and to address concerns expressed during public outreach about inclusion of the Dolores Project.

The Dolores River Executive Summary and the Dolores River Water Availability Technical Memo provide detailed information about the methods used to determine median hydrology for the Dolores River and will not be repeated here for the sake of brevity.² In general, Opposers do not appear to question the methods Staff used to evaluate water availability. However, a number of arguments made by Opposers in relation to water availability or hydrologic analysis are addressed below.

a. Water availability analyses should not and cannot be based on climate change projections.

Opposers suggest that climate change should be factored into the Board's water availability analysis. No water right in the State of Colorado is required to consider the potential effects of climate change when appropriated. The ISF Program should not be held to a different standard than all other water rights. Considering potential effects of climate change may be appropriate for firm yield analyses used for water development projects, but not for an ISF water right that is based on water only being available 50% of the time.

Evaluating climate change projections is not part of the Board's standard method for water availability determinations. Climate model projections show a broad range in potential streamflow conditions by 2050. It is unclear how this range could inform ISF's rates and timing for an appropriation made today. For example, peak runoff may shift to earlier in the spring, but the Board cannot appropriate higher flows in the spring than currently exist or less than the minimum if water is available now.

Climate change is an issue facing the natural environment as well as mankind. Climate change that outpaces an ecosystem's ability to adapt poses serious problems. In the face of climate change, ISF water rights to preserve the natural environment will become increasingly important. If changes to stream regimes caused by climate change render ISF water rights less effective at such preservation, the CWCB may develop tools to address the problem, similar to modification of ISF water rights under ISF Rule 9. For all of the above reasons, it is neither appropriate nor necessary to attempt to incorporate climate change projections into ISF water availability analyses.

b. The Dolores ISF rates are less than the median streamflow and would be met more than 50% of the time the majority of the year.

Opposers assert the Dolores ISF could place a call up to 50% of the time. However, the Dolores ISF would have a much lower than 50% probability of calling out junior water rights because the ISF rates are less than the median at almost all times. In fact, based on the Statemod Baseline simulation, the Dolores ISF rates are met or exceeded far more than 50% of the time for almost all days and up to 100% of the time on 9 days (See Fig 2).

² Staff has provided supplemental data and model runs used in its water availability analysis at Exhibits 1.a –c.

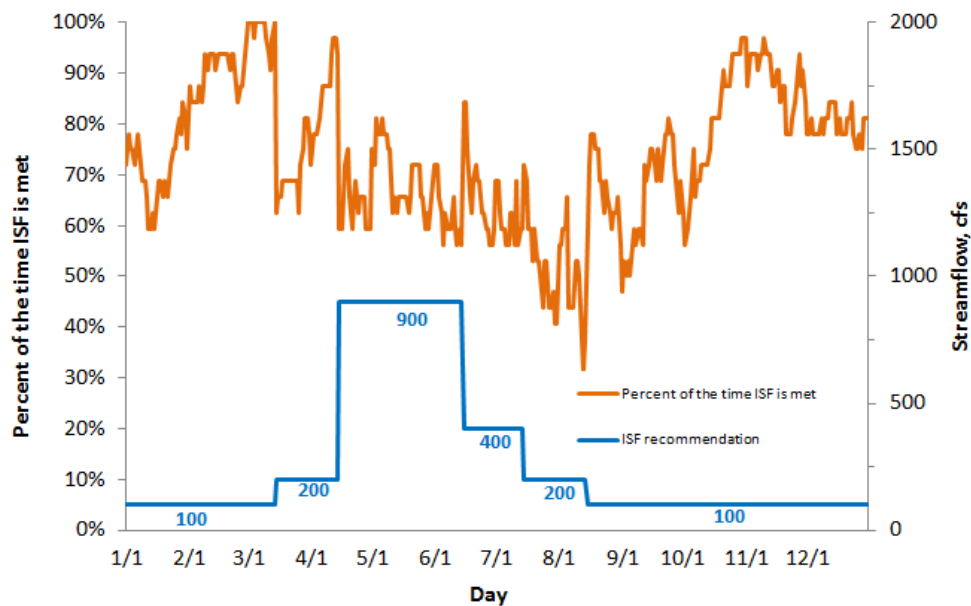


Figure 2: Graph of the StateMod simulation indicates the ISF would be met in excess of 50% of the time during most of the year.

The Dolores ISF is above the median value, but below the upper 95% confidence interval for the median, on 14 days or 3.8% of the year. Twelve of those days are on the descending limb of the hydrograph when the ISF rate is 200 cfs. This time period corresponds to spawning and rearing season for roundtail chub and bluehead sucker. The Board appropriates ISF rates below the 95% confidence interval on a limited basis when biologically important. For the 14 nonconsecutive days when the ISF is higher than the median, the ISF would still be met 31 to 47% of the time depending on the day.

Further, as indicated in section II 2. b., the Board’s appropriation would only be in priority and have the potential to call approximately 37% of the year; and as indicated in section II .3, other senior rights would be in a position to call far in advance of the Board’s new junior appropriation.

3. Material Injury

No Opposer has raised any issue regarding material injury. The Dolores ISF will be junior to and will not injure any existing decreed water rights. “Because instream flows are administered within the priority system, the instream flow cannot take water away from existing uses and the senior will always be able to make its diversion for its decreed beneficial uses.” *Central City*, 125 P.3d at 438-39. Administration of the CWCB’s junior-priority ISF water right cannot cause injury or otherwise impair, in any way, exercise of existing decreed water rights for their decreed purposes. In addition, under the provisions of section 37-92-102(3)(b), C.R.S. (2014), the CWCB will recognize any uses or exchanges of water in existence on the date the Dolores ISF was appropriated.

Conclusion

In conclusion, the Board should appropriate the proposed Dolores ISF because it would likely prevent adjudication of federal water rights if the segment is designated into the National Wild and Scenic River system and would support the Three Species Agreement that Colorado entered into with 6 other states, Tribes and federal agencies. The Board does not have the legal authority to accept injury and thus should reject any proposed diminution in the proposed flow rates in order to fulfill its duties to appropriate and protect the minimum amount necessary to preserve the natural environment. The proposed Dolores ISF does not deprive the people of Colorado the beneficial use of those waters available by law and interstate compact because there is still a significant amount of water available for development. Finally and most importantly, the evidence shows that: (1) there is a natural environment that can be preserved to a reasonable degree if the CWCB's water right is granted; (2) the natural environment will be preserved to a reasonable degree by the water available for the appropriation; and (3) such environment can exist without material injury to water rights. Specifically, the amounts claimed: (1) are based upon standard scientific methodology, including accurate R2Cross and PHABSIM (Physical Habitat Simulation) analyses; (2) reflect the amount of water available for the appropriation; (3) are necessary to preserve the identified natural environment to a reasonable degree; and (4) will not materially injure water rights. In sum, the exceptional resources of the Dolores River deserve the protection that an ISF water right will provide.

Dated this 17th day of August, 2015

CYNTHIA H. COFFMAN
Attorney General

/s/ 

SUSAN J. SCHNEIDER, # 19961*
First Assistant Attorney General
Natural Resources and Environment Section
Attorneys for the Colorado Water Conservation Board
*Counsel of Record
Attorneys for the Colorado Water Conservation Board

*Counsel of Record

CERTIFICATE OF SERVICE

I hereby certify that I have duly served the copies of the foregoing **REBUTTAL STATEMENT OF THE STAFF OF THE COLORADO WATER CONSERVATION BOARD** upon all parties herein by email this 17th day of August 2015, addressed as follows:

Hearing Officer

Casey Shpall Deputy Attorney General for Natural Resources Colorado Attorney General's Office 1300 Broadway, 7th Floor Denver, CO 80203 720-508-6295 casey.shpall@state.co.us

Party Status

<u>Colorado Water Conservation Board</u> Linda Bassi Colorado Water Conservation Board 1313 Sherman Street, Room 718 Denver, CO 80203 303-866-3441 ext. 3204 linda.bassi@state.co.us	<u>Colorado Water Conservation Board</u> Susan Schneider First Assistant Attorney General Colorado Attorney General's Office 1300 Broadway, 7th Floor Denver, CO 80203 (720) 508-6311 susan.schneider@state.co.us
<u>Bureau of Land Management</u> Roy Smith DOI, BLM, Colorado State Office 2850 Youngfield Street Lakewood, CO 80215-7093 303-239-3940 r20smith@blm.gov	<u>Colorado Parks and Wildlife</u> Jay Skinner Colorado Parks and Wildlife 6060 Broadway Denver, CO 80216 303-291-7260 jay.skinner@state.co.us
<u>Colorado River Water Conservation District</u> Peter Fleming P.O. Box 1120 Glenwood Springs, CO 81602-1120 970-945-8522 pfleming@crwcd.org	<u>Conservation Colorado Education Fund</u> <u>San Juan Citizens Alliance</u> <u>Western Resource Advocates</u> Robert Harris Bart Miller Western Resource Advocates 2260 Baseline Road, Suite 200 Boulder, CO 80302 303-444-1188 bart.miller@westernresources.org rob.harris@westernresources.org

<u>Dolores Water Conservancy District</u> <u>Southwestern Water Conservation District</u> John B. Spear Maynes, Bradford, Shipps & Sheftel, LLP P.O. Box 2717 Durango, CO 81302 970-247-1755 bspear@mbssllp.com	<u>John S. Hendricks</u> <u>Western Sky Investments, LLC</u> Mark E. Hamilton William H. Caile Holland & Hart LLP 600 E. Main St., Suite 104 Aspen, CO 81611-1991 970-925-3476 mehamilton@hollandhart.com whcaile@hollandhart.com
<u>Sheep Mountain Alliance</u> Jennifer Russell Russell & Pieterse, LLC PO Box 2673 Telluride, CO 81435 970-239-1972 jenny.russell@lawtelluride.com	

Contested Hearing Participant Status

<u>San Miguel County Board of County</u> <u>Commissioners</u> Steven J. Zwick P.O. Box 791 Telluride, CO 81435 970-728-3879 stevez@sanmiguelcounty.org
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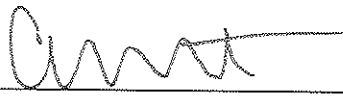


Exhibit 1a - Sum of San Miguel and Dolores Gages

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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Exhibit 1b - StateMod Historic Simulation at Lower Terminus

Task		Metric		Value		Unit		Status		Comment	
Task ID	Task Name	Metric 1	Metric 2	Value 1	Value 2	Unit 1	Unit 2	Status 1	Status 2	Comment 1	Comment 2
1	Task 1.1	1.1.1	1.1.2	1.1.3	1.1.4	1.1.5	1.1.6	1.1.7	1.1.8	1.1.9	1.1.10
2	Task 1.2	1.2.1	1.2.2	1.2.3	1.2.4	1.2.5	1.2.6	1.2.7	1.2.8	1.2.9	1.2.10
3	Task 1.3	1.3.1	1.3.2	1.3.3	1.3.4	1.3.5	1.3.6	1.3.7	1.3.8	1.3.9	1.3.10
4	Task 1.4	1.4.1	1.4.2	1.4.3	1.4.4	1.4.5	1.4.6	1.4.7	1.4.8	1.4.9	1.4.10
5	Task 1.5	1.5.1	1.5.2	1.5.3	1.5.4	1.5.5	1.5.6	1.5.7	1.5.8	1.5.9	1.5.10
6	Task 1.6	1.6.1	1.6.2	1.6.3	1.6.4	1.6.5	1.6.6	1.6.7	1.6.8	1.6.9	1.6.10
7	Task 1.7	1.7.1	1.7.2	1.7.3	1.7.4	1.7.5	1.7.6	1.7.7	1.7.8	1.7.9	1.7.10
8	Task 1.8	1.8.1	1.8.2	1.8.3	1.8.4	1.8.5	1.8.6	1.8.7	1.8.8	1.8.9	1.8.10
9	Task 1.9	1.9.1	1.9.2	1.9.3	1.9.4	1.9.5	1.9.6	1.9.7	1.9.8	1.9.9	1.9.10
10	Task 1.10	1.10.1	1.10.2	1.10.3	1.10.4	1.10.5	1.10.6	1.10.7	1.10.8	1.10.9	1.10.10
11	Task 1.11	1.11.1	1.11.2	1.11.3	1.11.4	1.11.5	1.11.6	1.11.7	1.11.8	1.11.9	1.11.10
12	Task 1.12	1.12.1	1.12.2	1.12.3	1.12.4	1.12.5	1.12.6	1.12.7	1.12.8	1.12.9	1.12.10
13	Task 1.13	1.13.1	1.13.2	1.13.3	1.13.4	1.13.5	1.13.6	1.13.7	1.13.8	1.13.9	1.13.10
14	Task 1.14	1.14.1	1.14.2	1.14.3	1.14.4	1.14.5	1.14.6	1.14.7	1.14.8	1.14.9	1.14.10
15	Task 1.15	1.15.1	1.15.2	1.15.3	1.15.4	1.15.5	1.15.6	1.15.7	1.15.8	1.15.9	1.15.10
16	Task 1.16	1.16.1	1.16.2	1.16.3	1.16.4	1.16.5	1.16.6	1.16.7	1.16.8	1.16.9	1.16.10
17	Task 1.17	1.17.1	1.17.2	1.17.3	1.17.4	1.17.5	1.17.6	1.17.7	1.17.8	1.17.9	1.17.10
18	Task 1.18	1.18.1	1.18.2	1.18.3	1.18.4	1.18.5	1.18.6	1.18.7	1.18.8	1.18.9	1.18.10
19	Task 1.19	1.19.1	1.19.2	1.19.3	1.19.4	1.19.5	1.19.6	1.19.7	1.19.8	1.19.9	1.19.10
20	Task 1.20	1.20.1	1.20.2	1.20.3	1.20.4	1.20.5	1.20.6	1.20.7	1.20.8	1.20.9	1.20.10
21	Task 1.21	1.21.1	1.21.2	1.21.3	1.21.4	1.21.5	1.21.6	1.21.7	1.21.8	1.21.9	1.21.10
22	Task 1.22	1.22.1	1.22.2	1.22.3	1.22.4	1.22.5	1.22.6	1.22.7	1.22.8	1.22.9	1.22.10
23	Task 1.23	1.23.1	1.23.2	1.23.3	1.23.4	1.23.5	1.23.6	1.23.7	1.23.8	1.23.9	1.23.10
24	Task 1.24	1.24.1	1.24.2	1.24.3	1.24.4	1.24.5	1.24.6	1.24.7	1.24.8	1.24.9	1.24.10
25	Task 1.25	1.25.1	1.25.2	1.25.3	1.25.4	1.25.5	1.25.6	1.25.7	1.25.8	1.25.9	1.25.10
26	Task 1.26	1.26.1	1.26.2	1.26.3	1.26.4	1.26.5	1.26.6	1.26.7	1.26.8	1.26.9	1.26.10
27	Task 1.27	1.27.1	1.27.2	1.27.3	1.27.4	1.27.5	1.27.6	1.27.7	1.27.8	1.27.9	1.27.10
28	Task 1.28	1.28.1	1.28.2	1.28.3	1.28.4	1.28.5	1.28.6	1.28.7	1.28.8	1.28.9	1.28.10
29	Task 1.29	1.29.1	1.29.2	1.29.3	1.29.4	1.29.5	1.29.6	1.29.7	1.29.8	1.29.9	1.29.10
30	Task 1.30	1.30.1	1.30.2	1.30.3	1.30.4	1.30.5	1.30.6	1.30.7	1.30.8	1.30.9	1.30.10
31	Task 1.31	1.31.1	1.31.2	1.31.3	1.3						

Exhibit 1c - StateMod Baseline Simulation at Lower Terminus

[illegible]