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TO: Colorado Water Conservation Board Members

FROM: Linda Bassi, Chief, Stream and Lake Protection Section

DATE: September 21-22, 2016 Board Meeting

AGENDA ITEM: 24.b Windy Gap Connectivity Channel – Injury with Mitigation

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Introduction

This agenda item addresses a proposed pre-trial resolution under ISF Rule 8i. (3) Injury Accepted with Mitigation, ("IWM"). Rule 8i.(3) requires the Board to consider an injury with mitigation proposal using a two-meeting process. At the first meeting, the Board may "conduct a preliminary review of the pretrial resolution during any regularly scheduled meeting to determine whether the natural environment could be preserved to a reasonable degree with the proposed injury or interference if applicant provided mitigation." At a subsequent meeting, the Board may "take final action to ratify, refuse to ratify or ratify with additional conditions." This is the first meeting of the process, with no action to be taken by the Board.

As part of Northern Colorado Water Conservancy District, Municipal Subdistrict's ("Subdistrict") Windy Gap Firming Project ("WGFP"), the Subdistrict has agreed to a bypass channel ("Connectivity Channel") around the Windy Gap Reservoir as part of an effort to address the concerns and interests of the environmental community and the western slope. See Figure 1 – Vicinity Map. The Connectivity Channel, if constructed, would be a component of the comprehensive enhancement package for the WGFP, and would provide habitat connectivity for fish and other aquatic organisms that currently exist above and below Windy Gap Reservoir, among other features. The Subdistrict has agreed to the construction of the Connectivity Channel if adequate funds for its construction can be procured. However, the Connectivity Channel will result in a slight shortening of the length of one of the three instream flow ("ISF") reaches affected by the project. The Subdistrict has proposed that, as mitigation for the shorter reach, the Connectivity Channel would: (1) provide a physical connection between existing ISF water rights; (2) protect and improve aquatic habitat in the Upper Colorado River above and below the Windy Gap Reservoir; and (3) enhance the habitat and environment for wildlife by providing sediment transport and preventing diversions between three ISFs. This mitigation for the shorter ISF reach could not occur without the protection provided by obtaining decreed water rights for the Connectivity Channel. The CWCB has to consider whether, under the Subdistrict's proposal, the natural environment will

continue to be preserved to a reasonable degree when balancing the mitigation against the impacts from the Connectivity Channel.

Staff Recommendation

Staff recommends that the Board:

1. Make a preliminary determination that the natural environment of the Colorado River would continue to be preserved to a reasonable degree with the proposed lessening of the reach of the ISF due to the proposed mitigation; and

2. Provide comments to Staff on the proposal and identify any issues that the Staff should address before bringing the proposal to the Board for final approval.

Background

In 1985, the Subdistrict constructed the Windy Gap Project near Granby, Colorado, which includes Windy Gap Reservoir, a pumping plant, and a six-mile pipeline to Lake Granby. It diverts water from the upper Colorado River and delivers it to Front Range municipalities via the Colorado-Big Thompson Project. The existing 445-acre-foot Windy Gap Reservoir has limited water storage, acting as a forebay to pool the water before it enters the Windy Gap Pump Plant and is pumped to Lake Granby.

The Subdistrict's Windy Gap Firming Project would add Chimney Hollow Reservoir (a 90,000 acre-foot reservoir on the East Slope) to the current Windy Gap Project system to firm project yield for the Windy Gap Firming Project participants located on the northern Front Range. As part of the WGFP, participants in the WGFP have agreed to collaboratively participate in a process to explore the possibility of constructing a bypass flow channel around the Windy Gap Reservoir as part of an effort to alleviate the concerns of the environmental community and the western slope. This process is a component of the comprehensive enhancement package for the WGFP. The Fish and Wildlife Enhancement Plan prepared for the Colorado Wildlife Commission and approved by both the Commission and the Colorado Water Conservation Board pursuant to Colorado state law (CRS 37-60-122.2) required the Subdistrict to provide $250,000 to fund a detailed study of a bypass around Windy Gap Reservoir. The study identified the potential improvements the Connectivity Channel would provide to the aquatic and riparian environment as well as the potential benefits to aquatic resources. An agreement to jointly pursue funding for the Channel is incorporated as a condition of the Grand County 1041 permit for the Windy Gap Firming Project. In addition, the CWCB authorized $2,000,000 in the 2013 Projects Bill (SB 13-181) and an additional $200,000 in the 2016 Projects Bill (SB 16-174) to pay for a portion of the costs of planning, design and construction of the Channel.

The CWCB has three existing ISF water rights on the Fraser River and the Colorado River that will be affected by the proposed Connectivity Channel. In 1990, the CWCB appropriated an ISF on the Fraser River in Case No. 5-90CW308 for 30 cfs (5/15-9/15) and 19 cfs (9/16-5/14) from the confluence with Crooked Creek to the confluence with the Colorado River. In 1990, the CWCB appropriated an ISF on the Colorado River in Case No. 5-80CW300 for 40 cfs (5/1-8/31) and 20 cfs (9/1-4/30) from the outlet of Granby Reservoir to the confluence with the Fraser River. In 1980, the CWCB appropriated an ISF on the Colorado River in Case No. 5-80CW447 for 90 cfs (1/1-12/31) from the Windy Gap Diversion Point to the confluence with the Williams Fork River ("80CW447 ISF"). Further, the Subdistrict has an agreement with the CWCB to operate the Windy Gap Project in a manner that takes into account the 80CW447 ISF, including flow rates.

Proposed Water Rights for Connectivity Channel

As discussed in agenda item 24.a, the CWCB, DNR, Colorado Parks and Wildlife ("CPW"), and the Subdistrict are working together to file an application for water rights for the Connectivity Channel. In the proposed application, the CWCB, CPW and DNR will use the water rights to establish and maintain connectivity between the two upstream ISF water rights on the Fraser River and Colorado River and the downstream ISF water right on the Colorado River in order to preserve the natural environment of those Rivers. *See* §§ 37-92-102(3); 37-60-106(1)(m)&(n), 24-33-111, 33-1-105, C.R.S. (2016). The CWCB, CPW and DNR will use the water for the benefit of the State for piscatorial, wildlife and environmental uses and to promote the conservation of the waters of the state of Colorado in order to secure the greatest utilization of such waters. The CWCB, CPW and DNR are claiming water rights in the following amounts, which correspond to the ISFs listed above:

59 cfs (5/1-5/14)
70 cfs (5/15-8/31)
50 cfs (9/1-9/15)
39 cfs (9/16-4/30)
90 cfs (1/1 - 12/31)

The above claimed flow rates will provide connectivity between the instream flow reaches above and below Windy Gap Reservoir by preventing diversions from the Connectivity Channel, which diversions could negatively affect the natural environment within the instream flow reaches. The above claimed flow rates are based on combining the existing decreed time periods and flow rates for the two upstream instream flow water rights and including the existing decreed time periods and flow rates for the downstream instream flow water right.

The CWCB, CDNR and CPW are also claiming up to 4,000 cfs for use within the Connectivity Channel to protect, preserve, enhance, improve, and manage aquatic life and aquatic habitat in the Upper Colorado River above and below Windy Gap Reservoir, and to conserve wildlife by providing sediment transportation and adequate flows to facilitate aquatic species migration through the Channel, and piscatorial and wildlife purposes. This is not an instream flow water right, but rather a water right for the Connectivity Channel that will protect flows in the Connectivity Channel from diversions out of the Connectivity Channel. The Subdistrict will be a co-applicant due to its ownership of the land and the facilities and because it has an agreement with the CWCB to operate the Windy Gap Project consistent with existing instream flows below the Connectivity Channel. The applicants will not place an administrative call for the proposed water rights associated with the Connectivity Channel on the Colorado River that will result in the curtailment of adjudicated water rights upstream of the Connectivity Channel's point of diversion or the Windy Gap Project water rights.

Description of Injury and Related Issues

The Connectivity Channel's change in location of water entering the Colorado River below the Windy Gap Reservoir will result in a shortening of the 80CW447 ISF reach by approximately 1,400 feet (-+/200 feet). During the course of working on this matter, it became apparent that the decree for the 80CW447 ISF erroneously lists the upper terminus at a point above the Windy Gap Reservoir instead of downstream of it, as the CWCB intended and as the 80CW447 ISF currently is administered by the Division of Water Resources (see Figure 2). Because the Connectivity Channel will transport water into the River at a different point below Windy Gap Reservoir from the current point where water enters the River below Windy Gap Reservoir, the CWCB will need to change the existing 80CW447 ISF upper terminus location to the point where the Connectivity Channel meets the River. The CWCB can accomplish this under the IWM proposal.

Under typical IWM cases, an ISF water right is injured by depletions that are not replaced. In this case, while the Connectivity Channel's change in location of water entering the Colorado River below Windy Gap Reservoir will result in a shortening of the ISF reach, a positive effect of the Connectivity Channel will be improved conditions for the two upstream ISF water rights on the Colorado and Fraser Rivers and the 80CW447 ISF, downstream of Windy Gap Reservoir.

Description of Mitigation

The Connectivity Channel will provide a connection between the three ISFs that does not currently exist, and operation of the Channel will prevent potential diversions between the reaches. Additionally, the Connectivity Channel will transport sediment and provide adequate flows to facilitate aquatic species migration through the Channel between the ISF reaches. The mitigation resulting from the Connectivity Channel's habitat improvements will provide the CWCB with more water being protected, better fish and wildlife habitat and greater State benefits overall. Consequently, with the proposed mitigation, the Board will be able to continue to preserve the natural environment to a reasonable degree with the 80CW447 ISF.

Alternatives Considered

The CWCB cannot address the incorrect terminus location of the 80CW447 ISF under section 37-92-305(3.5), C.R.S. (2015), which allows for a simple change in a surface point of diversion because that statute prohibits a simple change where there is an "intervening surface diversion point or inflow between the new point of diversion and the diversion point from which the change is being made." There are two surface water rights holders between the decreed upstream terminus of the 80CW447 ISF reach and the point where the Colorado River exits Windy Gap Reservoir downstream of Windy Gap Reservoir dam, which is currently the actual and administrative upstream terminus of the existing 80CW447 ISF. These rights include the Windy Gap Water rights and one water right just below the Windy Gap Reservoir. Similarly, the incorrect terminus location cannot be fixed under section 37-92-305(3.6), C.R.S. (2015), which allows a water rights holder to correct an erroneously described point of diversion, such as is the case here, because it also prohibits such action when there "another surface water right is located between the decreed location and its physical location." Finally, the CWCB cannot modify the 80CW447 ISF under ISF Rule 9 - Modification of ISF Rights because that Rule only applies if the modification to a shorter reach results in a decreased flow rate. Thus, the IWM proposal provides the CWCB with an excellent alternative that actually enhances the currently existing natural environment. Through this proposed IWM process, the upstream terminus of the 80CW447 ISF would be designated at the downstream discharge point of the Connectivity Channel.

Evaluation of Proposal by Colorado Division of Parks and Wildlife

CPW staff has worked extensively with the Subdistrict and Staff to discuss this proposal. The CPW staff's analysis and recommendation will be presented at the two Board meetings on this matter.

Division Engineer Consultation

Counsel for the CWCB has consulted with the Division Engineer on this proposal. Based upon that consultation, it appears that this proposal will be administrable and will not result in a selective call or subordination.

Terms and Conditions

Staff, counsel for the CWCB and representatives of the Subdistrict have discussed proposed terms and conditions related to the IWM proposal. Many terms and conditions are yet to be negotiated and the proposed IWM proposal will not move forward if the Connectivity Channel is not constructed, but IWM terms and conditions in the final decree should include the following:

Inspection access. The Subdistrict will allow access for the CWCB and CPW to inspect the Connectivity Channel, and, if necessary, to perform biological stream monitoring, subject to reasonable limits and provisions for advanced notice.

Maintenance of Mitigation. The Subdistrict will permanently maintain the structural components of the Connectivity Channel, subject the availability of funds and any required permits.

Measuring Devices. The Subdistrict will install and pay operation and maintenance of any measuring devices deemed necessary by the Division Engineer to administer the terms of the stipulation and decree implementing the IWM proposal.

Conclusion

Based upon the benefits that will accrue to the ISF water rights upstream and downstream of Windy Gap Reservoir, it appears that the proposed mitigation will enable the Board to continue to preserve the natural environment to a reasonable degree on the 80CW447 ISF reach with the projected injury that would result from the Connectivity Channel.

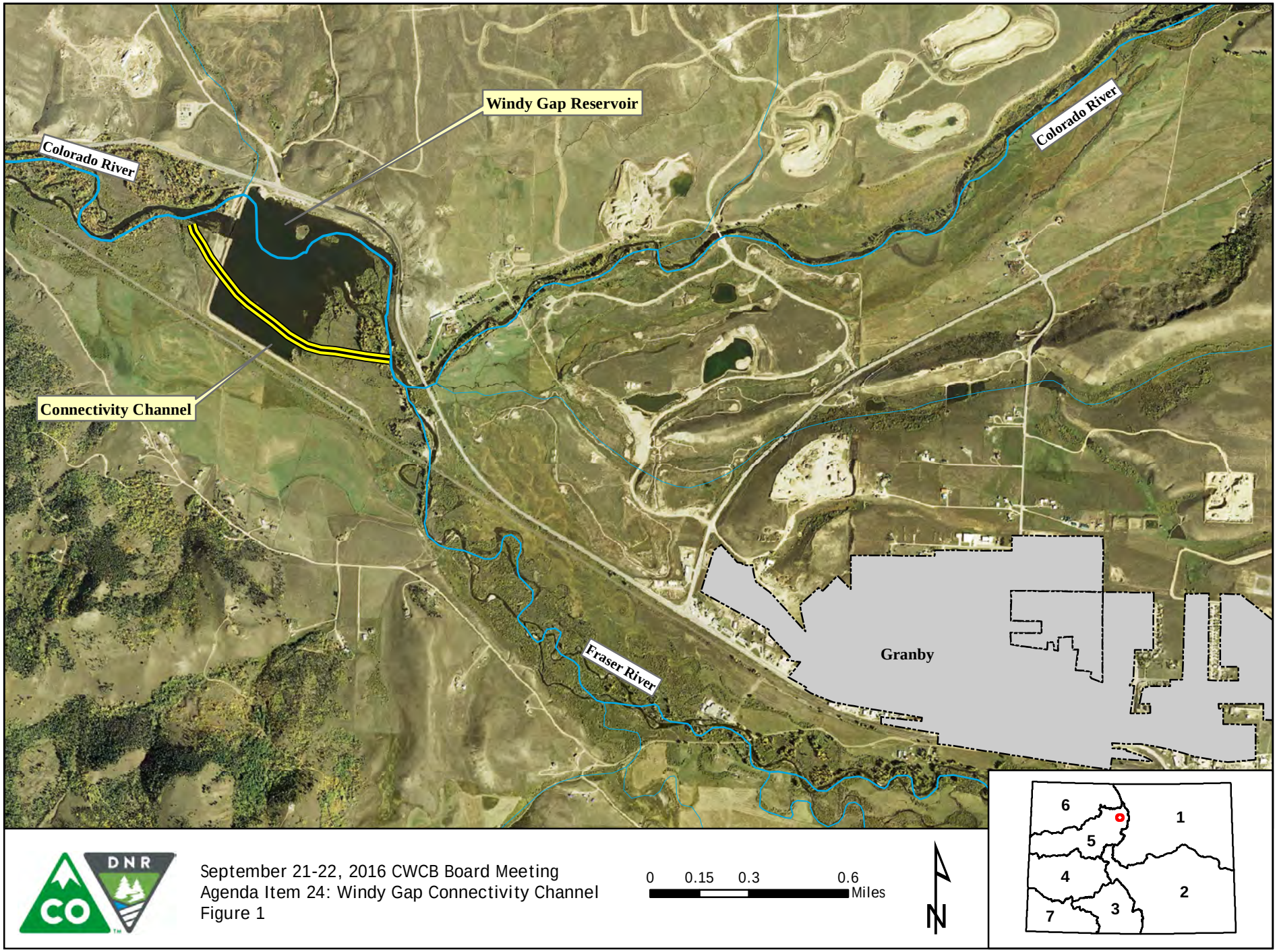

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Figure 1

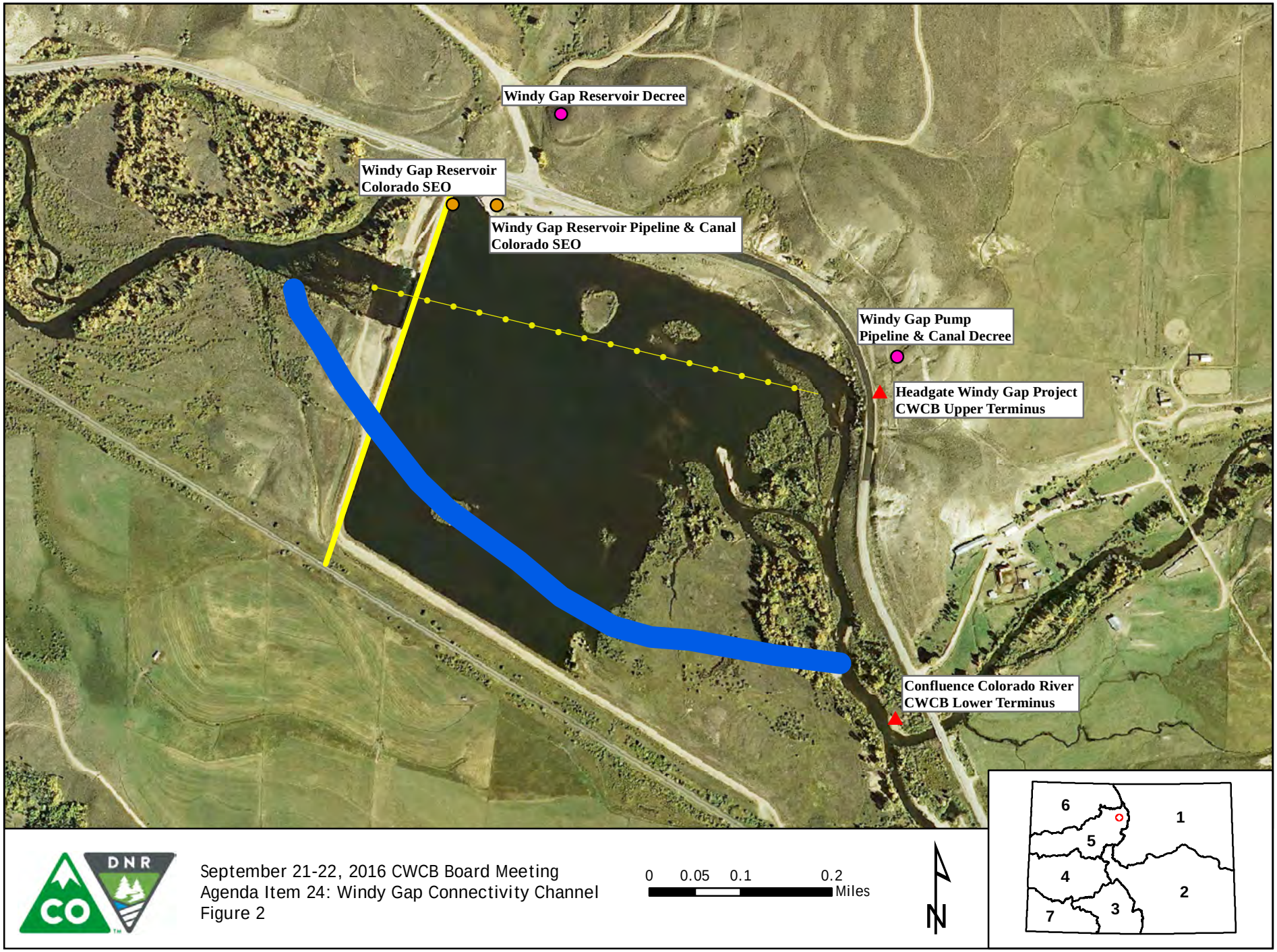

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Figure 2