



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

John W. Hickenlooper
Governor

Mike King
Executive Director

Dick Wolfe, P.E.
Director/State Engineer

Alan C. Martellaro, P.E.
Division Engineer

August 2, 2012

Ms. Linda J. Bassi
Colorado Water Conservation Board
1313 Sherman Street, Room 721
Denver, Colorado 80203

**Re: Temporary Loan of Water Rights for Colorado Water Conservation Board for
Instream Flow
Pursuant to Section 37-83-105, C.R.S.
Yost Ditch, Section 29, T 4 S, R 86, 6TH P.M.
Water Division 5, Water District 53, Eagle County**

Approval Period: August 2, 2012 through June 30, 2022
Contact Phone Number for Ms. Linda J. Bassi: 303-866-3441

Dear Ms. Bassi:

We have reviewed your letter dated July 13, 2012 in which you request approval of a temporary loan of water pursuant to Section 37-83-105, C.R.S., for the Colorado Water Conservation Board ("CWCB" or "Applicant") for instream flow ("ISF") use. As required by § 37-83-105(2)(b)(II), C.R.S., written notice of the request for approval of a temporary loan of water was provided on July 13, 2012 to all parties who have subscribed to the Division 5 Substitute Water Supply Plan ("SWSP") Notification List. The Division of Water Resources ("DWR") did not receive comments during the statutory 15-day comment period. The statutory \$100 filing fee (receipt no. 3656148) was submitted with this request.

Statement of Duration and Description

CWCB is seeking approval of a temporary loan for water rights leased from Coyote River Ranch, LLC ("Coyote Ranch") via the Colorado Water Trust ("CWT") for ISF use. The water right leased from Coyote Ranch consists of one direct flow right in the Yost Ditch, which diverts water from Deep Creek, a tributary of the Colorado River. The term of the temporary water lease agreement ("Agreement") is for the period of July 31, 2012 through June 30, 2022. Although the term of the Agreement is for a 10-year period, at this time the Agreement is only implemented for a one-year term from July 1, 2012 through June 30, 2013. Implementation of

the Agreement after the first year is subject to the completion and execution of a lease extension. If CWCB seeks to extend the Agreement for a second-year term or a third-year term, CWCB shall notify the Division Engineer of its intention and provide a copy of the Agreement Extension prior to using the Yost Ditch water for ISF use.

CWCB currently holds an ISF water right on Deep Creek, decreed in Case No. 80CW312, which is more specifically described in the table below:

Case Number	Upstream Terminus	Downstream Terminus	ISF decreed amounts (cfs)	Appropriation Date
80CW312	NW1/4 NW1/4, Sec. 26, T 3 S, R 89 W, 6 th P.M.	SW1/4 SW1/4, Sec. 29, T 4 S, R 86 W, 6 th P.M.	14 (May 1-September 30) 8 (October 1-April 30)	May 7, 1980

The Deep Creek ISF water right was decreed to preserve the natural environment to a reasonable degree. The temporary loan of water leased from Coyote Ranch will be for ISF use in Deep Creek between the Yost Ditch headgate downstream to the confluence of Deep Creek with the Colorado River (downstream terminus), as shown on the attached map. CWCB seeks to use the historical average monthly diversion amounts of the Yost Ditch for ISF use in this segment of Deep Creek, which represents the portion of the ISF reach that historically did not show accretions of return flows from irrigation. The loan water from the Yost Ditch to CWCB for ISF use will be limited to the amount needed, when combined with the native flow, to achieve the decreed flow rates of the ISF water right. The loan water is expected to increase stream depth and wetted perimeter and to lower water temperature for the fish.

The temporary loan will provide water for up to 120 days in each year, not to exceed 3 years during the 10-year period ending in 2022.

Proponent's legal right to use the loaned water right

CWCB and the CWT have entered into a Temporary Water Lease Agreement ("Agreement") with Coyote River Ranch, LLC ("Coyote Ranch"). Under the Agreement, Coyote Ranch will make water available to CWCB for ISF use from its ownership in the Yost Ditch water rights when conditions permit. A copy of the Agreement was provided to DWR with this request and is attached to this letter. Coyote Ranch ownership in the Yost Ditch was evidenced by a Special Warranty Deed that was provided to DWR with this request and a copy is attached to this letter. Based on its ownership in the Yost Ditch, Coyote Ranch has the right to the water right in the Yost Ditch, and, therefore the right to loan the water pursuant to the conditions set forth in Section 37-83-105 (2), C.R.S., and in Rule 6(k) of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program.

The CWCB existing ISF water right decreed in Case No. 80CW312 was identified as being more junior than the existing water rights on this segment of Deep Creek and may be out of priority during much or all of the 2012 irrigation season. Consistent with the terms and conditions of the Agreement, CWCB shall notify the Division Engineer when the Yost Ditch water right is being used for ISF purposes. Coyote Ranch agrees that it may not irrigate with the water right in the Yost Ditch while the water right is being leased to CWCB for ISF use.

However, in any other year that the water right is not used for ISF use during the ten-year term of the Agreement, Coyote Ranch may irrigate with the water right in the Yost Ditch.

Historical Use and Estimate of the Consumptive Use of the loaned water right

The Yost Ditch water right that is subject of the Agreement is summarized in the table below:

Priority Number	Decreed Amount (cfs)	Amount Owned by Coyote Ranch (cfs)	Case Number	Appropriation Date	Adjudication Date
172	5.68*	2.00	CA466	07/10/1900	12/09/1907

*2.282 cfs of Priority 172 was transferred to Erickson Ditch in case no. W-2120, leaving 3.398 cfs of priority 172 in Yost Ditch

The water right in the Yost Ditch was decreed for direct flow irrigation use. The Yost Ditch diverts water from Deep Creek approximately ½ mile upstream from the confluence with the Colorado River. Approximately ½ mile down the ditch, 2 cfs of Priority 172 is split off and is piped to the east across the Colorado River to the Coyote Ranch property. The 2 cfs of water in the Yost Ditch, owned by Coyote Ranch, is used to irrigate approximately 27 acres of pasture grass, located adjacent to the Colorado River in Sections 31 and 32, Township 4 South, Range 86 West of the 6th P.M. Diversions under the Yost Ditch typically begin in May of most years and continue into September. CWCB is seeking to use the full diversion amounts of Deep Creek, releasing dominion and control of the water at a point upstream of the historical return flow location. No claim is made here to use the historical consumptive use portion downstream of that return flow location; therefore, a historical consumptive use analysis is not necessary. However, in order to determine if CWCB will need to replace any return flows to the Colorado River during the non-irrigation season, a consumptive use analysis was performed by Leonard Rice Engineers ("LRE") using the average monthly diversion for the period of 1978 through 2010. The total average of historical diversions for that period was 875 acre-feet. However the average monthly diversion for the 2 cfs for that period was 429.2 acre-feet. The historical consumptive use analysis was based on the Modified Blaney-Criddle Method with TR-21 crop coefficients. Monthly temperature and precipitation data were determined using the Soil Conservation Service methodology. The ditch loss from the headgate to the irrigated fields was assumed to be 10 percent and an irrigation efficiency of 60 percent was used. Water in excess of the irrigation requirement was added to the soil moisture bank. The average annual historical stream depletion from the 2 cfs water right in the Yost Ditch is estimated to be about 48.6 acre-feet, as shown in the attached Table 1.

A portion of the water diverted to irrigate the Coyote Ranch property historically accrued to the Colorado River in a form of surface and ground water return flow. Rapid Engineering has completed a delayed depletion analysis to determine the amount and timing of the ground water return flow. According to this analysis it was determined that 30 percent of the total return flow accrues to the Colorado River as surface return flow within the same month as the diversion and 70 percent accrues to the Colorado River as ground water return flow. The timing of the ground water return flows was lagged to the Colorado River using the Glover method with the following aquifer parameters: X = 350 feet, W = 619 feet, S=0.2, and T = 74,500 gpd/ft (determined by Rapid Engineering based on aquifer thickness of 66.4 feet estimated from nearby well logs and a hydraulic conductivity of 150 ft/day). Based on the Glover analysis 89.7 percent of ground water return flows accrued to the stream during the first month of diversion

with the remaining 10.3 percent accrued in the following month, therefore CWCB is not proposing to make return flow replacements to the Colorado River beyond the irrigation season (Tables 2 and 3).

Table 2 shows a net stream depletion of 1.3 acre-feet in October and 1.8 acre-feet in November. An irrigation season call may occur through October and occasionally into the first week of November; therefore, this approval requires the lagged return flow obligation to be replaced any time a water right call is in effect. By September 1, 2012, CWCB is required to provide to the Division Engineer a copy of a contract for an adequate amount of replacement water to replace the lagged return flow obligations. If the Agreement is implemented for the second-year term or third-year term, the Applicant shall provide to the Division Engineer a copy of a contract with the entity that will provide the replacement water for those years. The replacement water must be decreed for augmentation purposes and available for use at the location where the return flows from the Yost Ditch historically accrued to the stream.

Diversions at the Yost Ditch headgate are 100% depletive to Deep Creek, therefore CWCB's use of water under the Agreement will be based upon historical diversion amounts as shown in the table below:

Amount of Leased Water Claimed for ISF Use in Deep Creek (cfs)

APR	MAY	JUNE	JUL	AUG	SEP	OCT
0.18	1.01	1.62	1.54	1.3	1.01	0.42

However, since Coyote Ranch does not own the entire amount of Priority 172 in the Yost Ditch the use of water under the Agreement must be limited to the Coyote Ranch pro-rata amount of the water physically available at the headgate.

The Division Engineer has reviewed the loan allowing the new time, place and use of this water right and determined, as required by 37-83-105(2)(a) and (2)(b), that it will not injure the existing water rights of others and will not affect Colorado's compact entitlements.

Conditions of Approval

This temporary loan of water is hereby approved pursuant to Section 37-83-105, C.R.S., subject to the conditions below:

1. This approval applies to diversions/releases beginning August 2, 2012 through June 30, 2022.
2. If CWCB seeks to implement the Agreement for a second-year term or a third-year term, CWCB shall notify the Division Engineer of its intention and provide a copy of the Agreement Extension prior to using the Yost Ditch water for ISF use.
3. Approval of this temporary loan of water is for the purposes stated herein, specifically for temporary lease of Coyote Ranch ownership in the Yost Ditch water right for CWCB ISF use on Deep Creek between the Yost Ditch headgate downstream to the confluence of Deep Creek with the Colorado River.

4. Since, Coyote Ranch does not own the entire amount of Priority 172 in the Yost Ditch the use of water under the Agreement must be limited to the Coyote Ranch pro-rata amount of the water physically available at the headgate.
5. The Applicant must provide the name, address and phone number of the person who will be responsible for the operation of this temporary loan of water to the SEO, the Division Engineer (Alan Martellaro, P.O. Box 396, Glenwood Springs, CO 81602, telephone 970-945-5665), and the Water Commissioner (Frank Schaffner, P.O. Box 396, Glenwood Springs, CO 81602, 970-638-4470) within 20 days of the receipt of this approval.
6. All instream flow shall be measured in a manner acceptable to the Division Engineer. The Applicant shall install and maintain measuring devices as required by the Division Engineer for operation of this temporary loan.
7. Table 2 shows a net stream depletion of 1.3 acre-feet in October and 1.8 acre-feet in November. An irrigation season call may occur through October and occasionally into the first week of November; therefore, this approval requires the lagged return flow obligation to be replaced any time a water right call is in effect. By September 1, 2012, CWCB is required to provide to the Division Engineer a copy of a contract for an adequate amount of replacement water to replace the lagged return flow obligations. If the Agreement is implemented for the second-year term or third-year term, the Applicant shall provide to the Division Engineer a copy of a contract with the entity that will provide the replacement water for those years. The replacement water must be decreed for augmentation purposes and available for use at the location where the return flows from the Yost Ditch historically accrued to the stream..
8. Conveyance loss for delivery of augmentation water to the Colorado River is subject to assessment and modification as determined by the Division Engineer
9. The Applicant shall perform verification for all parcels of dried up land used to generate credits during the term of this plan. The Applicant shall provide an affidavit and a map to the Water Commissioner and Division Engineer that identifies and confirms the lands that are dried up during this irrigation season. If the parcels of land used to generate credits are not dried-up to the satisfaction of the Division Engineer the Applicant shall recalculate the net depletions/accretions in consideration of any deficit of lagged return flows that are owned to the river. If the Agreement is implemented for the second-year term or third-year term, the Applicant shall provide a written notification to the Water Commissioner and Division Engineer identifying the lands to be dried up for that irrigation season.
10. The Applicant must submit accounting reports to the Division Engineer ((Alan Martellaro, P.O. Box 396, Glenwood Springs, CO 81602, telephone 970-945-5665), and the water commissioner (Frank Schaffner, P.O. Box 396, Glenwood Springs, CO 81602, 970-638-4470)) on a daily basis or other interval acceptable to both of them. The Applicant shall also provide a report to the Division Engineer and Water Commissioner by November 15th, which summarizes diversions/releases made pursuant to this temporary loan of water. Accounting forms are subject to modification and approval by the Division Engineer. Flow rates shall be reported in cfs, volumes shall be reported in acre-feet.

11. This temporary loan of water may be revoked or modified at any time should it be determined that injury to other vested water rights has occurred or will occur as a result of the operation of this temporary loan of water.
12. The decision of the Division Engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in a water court case or any other legal action that may be initiated concerning the loan. This decision shall not bind the Division Engineer to act in a similar manner in any other applications involving other loans and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant. Any appeal of a decision made by the Division Engineer concerning a temporary loan of water pursuant to Section 37-83-105, C.R.S., shall be to the Division 5 Water Judge within fifteen days of the date of this decision.

Should you have any questions regarding this temporary loan of water, please contact me at (970) 945-5665.

Sincerely,



Alan Martellaro, P.E.
Division Engineer

Attachments: Map of the ISF reach
Special Warranty Deed
Temporary Water Lease Agreement
Tables 1, 2 and 3

cc: Dick Wolfe, State Engineer
1313 Sherman Street, Room 818
Denver, Co 80203
Telephone 303-866-3581

Frank Schaffner,
P.O. Box 396,
Glenwood Springs,
CO 81602,
Telephone 970-638-4470