

**RESERVE AT HOCKETT GULCH
RAW WATER SUPPLY SYSTEM
CONCEPTUAL DESIGN REVIEW
TECHNICAL MEMO**

TO: Dan Metzger, Brue Baukol Capital Partners
FROM: Gary Brooks
DATE: August 10, 2018
ATTACHMENTS: Resource Memorandum and Exhibit A (location of potential raw water diversion)

The purpose of this memorandum is to describe the location and design of a potential raw water supply system as described in the memorandum dated April 16, 2018 (attached) prepared by Michael J. Erion, P.E. with Resource Engineering regarding Reserve at Hockett Gulch Raw Water Irrigation Sources. The Resource memo suggests that a new Brush Creek diversion could be located within the Town of Eagle open space and right of way to enable RHG to utilize its remaining water rights associated with Ditch No. 3. This would require a change in the point of diversion downstream on Brush Creek from the original Ditch No. 3 location.

It is assumed that the balance of water volume remaining from the Ditch No. 3 water right would be sufficient to provide RHG's proposed raw water irrigation demand volume.

The attached Exhibit A shows the location of a potential raw water diversion from Brush Creek as suggested in the Resource Memorandum.

The raw water supply system would most likely involve a surface diversion below the existing Sylvan Lake Road bridge over Brush Creek which would then be piped to a pump station containing a wet well. The wet well would have multiple Variable Frequency Drive submersible pumps which would pump the water through a force main to the RHG project site. The force main would likely terminate into a meter vault which would also be the connection point for the project irrigation distribution system that would serve the landscaped areas proposed within the project site.

The intake, wet well, pumps, force main and meter vault would all need to be sized based on the projected flow volume required for irrigation demand at the RHG site.

Additional items to note regarding the conceptual layout of the raw water supply system shown on Exhibit A include the following:

- Permitting for the system would likely include a Town of Eagle Floodplain Development Permit and a Federal 404 Wetland Permit. The existing wetlands shown on Exhibit A were from a pre-construction delineation study prepared for Eagle Ranch. The location and extent of existing wetlands within the construction limits would need to be determined by a new Wetland Delineation Report which would form the basis of the 404 wetland permit submittal.
- The proposed intake structure as shown is very close to the public water system intake filter gallery for the Green Acres Mobile Home Park located immediately to the west.
- The pump station will need to have access for maintenance of the system equipment which will likely require an access road from the existing mobile home driveway north to the pump station.
- The Pump station will require power and telemetry service.
- The proposed force main as shown will cross under an existing paved driveway leading to the mobile home park. This will require a Town of Eagle Road Cut Permit or this permit could be included in the Development Permit for the first construction phase.
- The proposed force main as shown will cross multiple existing water mains, irrigation pipes and a sewer main. A detailed field survey will be required for design of the raw water supply system.

Memorandum

To: Morgan Landers, Community Development Director
From: Michael J. Erion, P.E. 
CC: Brandy Reitter, Bryon McGinnis, Mary Elizabeth Geiger, Esq.
File: 161-9.21
Date: April 18, 2018
Re: Town of Eagle – Reserve at Hockett Gulch – Raw Water Irrigation Sources

As a follow up to the meeting on April 3, 2018 regarding water matters for the Reserve at Hockett Gulch application, this memorandum presents our findings related to raw water irrigation sources. As presented by the Applicant's team, three ditches traverse through or adjacent to the project property including Ditch No. 3, Laura A. Hockett Ditch and CKP Ditch. The questions by the development team included (1) Does the Town have an interest in these ditches? (2) What is the status of use of Ditch No. 3? (3) Who are the other owners/users in the three ditches?

Ditch No. 3

The Town owns 16 acre feet of historic consumptive use and the associated 0.255 cfs of the 3.04 cfs decreed to Priority No. 52 in Ditch No. 3. This right was conveyed to the Town pursuant to a 1981 Agreement with JHY Associates and was included in the Town's Plan for Augmentation in Case No. 87CW386. The purpose of this 1981 Agreement and conveyance was to enable to the Town to provide potable water service to 88 EQRs at the JHY development. The Town may own additional rights in the ditch for the Eagle Ranch open space parcels, but RESOURCE does not have any documentation of such and none was apparently conveyed with the Eagle Ranch annexation. BBCP is apparently the only other owner in the ditch. JHY Associates dried up their irrigated lands pursuant to the decree in Case No. 80CW269. Eagle Ranch construction apparently resulted in the ditch being permanently closed on Eagle Ranch in about 2002. The Ditch No. 3 Ditch structure is unusable.

Laura A. Hockett Ditch

The Town does not own any water in the Laura A. Hockett Ditch. The ditch is owned by properties west of Eagle down to and including the Airport Gateway Center. The District 37 Water Commissioner Bill McEwan indicated that the ditch is very flat and would not have additional capacity (assuming BBCP worked out an Agreement with the existing ditch owners).

CKP Ditch

The Town owns water rights in the CKP Ditch that were quantified in Case No. 95CW208 for dry up at the Eagle Airport. These rights were historically diverted from the Eagle River at a changed point of diversion and not from Brush Creek. The Town's CKP Ditch rights are included in the Plan for Augmentation decreed in Case No. 05CW282. The CKP Ditch does not appear to be located on the

BBCP property and would require an agreement with existing ditch users and an easement from Green Acres Mobile Home Park. It does not appear that there would be water available for use from this ditch.

New Brush Creek Diversion

As described above, the Town is not in a position to enhance BBCP's development of a raw water system through the use of structures or water rights related to three ditches. However, a new Brush Creek diversion, pump, could be located within the Town of Eagle open space and road right of way. The Town could grant easements for a raw water system. This could be accomplished by a change in point of diversion for BBCP's remaining Ditch No. 3 water rights.

Water Rights

The Reserve at Hockett Gulch project water rights dedication requirement will exceed the existing 88 EQR credit from the 1981 JHY Agreement and the balance of Ditch No. 3 water rights owned by BBCP. RESOURCE noted at the meeting that up to 2.7 acre feet of the remaining Ditch No. 3 historic consumptive use is also used as augmentation for the the Middle Eby Creek Subdivision located outside the Town limits. Counsel for BBCP was going to follow up on this ownership and use.

If a raw water system is developed for the project, it would seem logical that the Town would lease back to BBCP a portion of the Ditch No. 3 water rights, which were historically used for irrigation on the property, for use from a new point of diversion on Brush Creek. The Town would need to change the point of diversion for the balance of Ditch No. 3 water rights to be conveyed to the Town for raw water irrigation at a pump station on Brush Creek and to municipal use at the Town's Lower Basin Water Treatment Plan to the extent not used for irrigation. The Town would then need to discuss the dedication of other water rights by BBCP to the Town to meet the water dedication requirements or payment in lieu thereof.

