

Staff Report

TO: Board of Directors
FROM: Chip Close, Water Operations Manager
DATE: April 27, 2022
SUBJECT: NID Off Season Water Services

WATER OPERATIONS

RECOMMENDATION:

Review and discuss the water services offered by NID during the offseason (winter months).

BACKGROUND:

Annual Raw Water Service

Annual water service was initially established at a time when modern water treatment plants did not exist. Canal water was utilized for all purposes, including in-home use therefore year-round service was required. The addition of NID water treatment plants and potable water distribution systems in the late 1960's, along with changes to public health and safety codes, has changed the need for annual water use. Annual raw water service is defined in NID's Rules and Regulations as "Deliveries are made year-round at a rate of flow that may differ between the irrigation and the winter seasons. No new accounts are accepted for this category of service." Per this definition, this account classification is slowly being reduced through attrition. As accounts drop service, or become delinquent, they are switched to seasonal & winter accounts. Customers who utilize this service are billed monthly, similar to NID's treated water customers. According to our records, 273 of these types of accounts remain (includes Constructed Conveyance detailed below).

Constructed Conveyance

In 1996 the Environmental Protection Agency introduced multiple amendments to the Safe Drinking Water Act (SDWA). One of the amendments included a change in definition of a public water system. The amended definition expanded the public water system to include Constructed Conveyances. A constructed conveyance is

defined as “the means of delivering water to include not only systems which provide water for human consumption through pipes, but also systems which provide water for human consumption through other constructed conveyances.” This expanded definition meant that NID canal water customers could be considered customers of a public water system, and NID would be required to provide treatment for each connection.

Providing treatment for these connections was found infeasible due to the remote nature of many of these connections and due to a lack of point of use systems. So, to abide by the SDWA yet continue to provide year-round canal water service, NID came up with a solution that required any year-round canal water customer to provide proof of an alternate drinking water supply to continue winter water service. This self-certification provides the documentation necessary to show the Federal and State regulatory agencies that customers were not utilizing NID canal water for drinking or cooking purposes, and therefore should not be considered a supply for human consumption.

The program requires that each customer self-certify that they have an alternate potable water supply from a bottled water delivery company to their home. District staff periodically checks bottled water delivery receipts to ensure compliance. To date, there are 119 customer accounts classified as “Constructed Conveyance” accounts. New Constructed Conveyance accounts are no longer allowed. Additionally, when a constructed conveyance parcel changes ownership, NID sends a new questionnaire to ensure continued certification.

Fall / Stock Water Service

Fall water service is defined in NID’s Rules and Regulations as “A service available during the period from October 15 to December 1, both dates inclusive. This service will only be provided when and where the District has available water and is secondary to seasonal or demand water”. Historically, Fall /Stock water was seldomly used and was developed to provide a short period of water supply to hold ranchers over until the rains begin falling in December. The request for this service in recent years has greatly expanded due to drought and worries over late fall fire protection. In 2015, there were 14 customers utilizing this service as compared to 137 in 2020. Per its definition, this water service is only offered in years when water supply is robust. This water service was not offered in 2021 due to drought conditions.

Winter Water Service

Winter water service is defined in NID Rules and Regulations as “Water delivered approximately October 15 and ending approximately April 14, unless otherwise determined by the Board”. The most common request for winter water today is for Stock Water (drinking water for animals), irrigation through the winter months, and incidental home use, including showers and toilets. The demand for winter water service has increased in recent years due to drought conditions. Many customers

are purchasing this service to extend irrigation for fire protection in the fall and winter months.

Winter water comes at a higher cost as compared to summer service. The additional fees can be attributed to the increased labor required to monitor and maintain canals during storm events.

The number of NID Canals that offer winter service is limited. Of the District's 161 canals, 92 offer winter service. NID is not expanding winter service to canals that have not historically received this service. This is to limit the amount of water pulled from storage at a time when our reservoirs should be refilling. There are several factors that help to determine winter availability for each canal. These include lack of supply due to no connectivity to upstream canals in the off-season, no place to spill excess flows, and long lengths of canal for a very limited number of requestors.

BUDGETARY IMPACT:

A breakdown of the total number of off season raw water account billings in 2021 is as follows:

Account Type	Number of Accounts	Total Billed 2021
Annual Water Service	273	\$459,000
Constructed Conveyance	119*	
Fall / Stock Water	0 (due to drought)	
Winter Water	588	\$700,000
Totals	861	\$1,159,000

*is included in the Annual Water Service count

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Attachments: (1)

- PowerPoint Presentation



NID OFF-SEASON WATER SERVICES
(WATER DURING WINTER)

Off-Season Raw Water Services



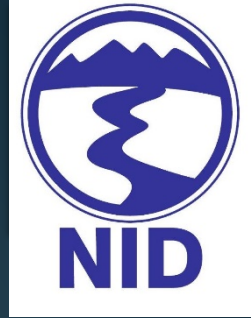
- ▶ Two Main Water Service Seasons
 - ▶ Summer Irrigation Season April 15th through October 14th
 - ▶ Off-season water services October 15th through April 14th
 - ▶ Multiple types of off-season services
 - ▶ Annual Raw Water Service
 - ▶ Constructed Conveyance Service
 - ▶ Fall / Stock Water Service
 - ▶ Winter Water Service

Annual Water Service



- ▶ Defined as deliveries made year-round at a rate of flow that may differ between irrigation season and winter season
- ▶ Service was historically provided for in home use (prior to modern drinking water systems)
- ▶ This service is no longer offered by the District
 - ▶ Historic accounts are grandfathered until service is dropped or becomes delinquent
- ▶ Service is billed on a monthly basis year round
- ▶ Number of existing accounts is 273

Constructed Conveyance



- ▶ Constructed Conveyance is defined as **the means of delivering water to include not only systems which provide water for human consumption through pipes, but also system which provide water through other constructed conveyances**
- ▶ This definition was expanded by the Safe Drinking Water Act of 1996 and began applying to all water agencies
 - ▶ This put all in home canal water users in jeopardy of losing service, or having to provide full treatment
- ▶ NID complied with the law by developing the Constructed Conveyance account
 - ▶ All accounts that received water in the winter must self certify an alternate source for drinking water (i.e. NID treated water, well etc.)
 - ▶ Properties without a potable water source must provide NID with proof of bottled water purchase through a Commercial Bottled Water Hauler
 - ▶ Service was a solution to a change in law,
 - ▶ No new accounts will be accepted
 - ▶ Records indicate that 119 customer remain on this program
 - ▶ As properties change ownership, new certification is required for continued service

Fall / Stock Water Service



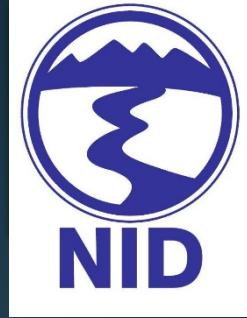
- ▶ Defined as a service available during the period from October 15th through December 1st
- ▶ Per NID Rules and Regulations, service is only offered when and where the District has available water and is secondary to seasonal or demand water
- ▶ Not a popular service in the past, but has become more popular due to drought and climate change
 - ▶ In 2015 there were 14 accounts – in 2020 there were 137 accounts
- ▶ Service was not offered in 2021 due to drought conditions

Winter Water Service



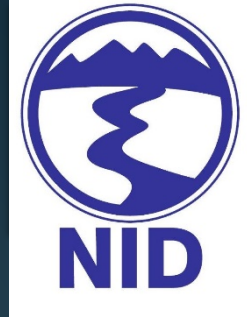
- ▶ Defined as water delivered approximately October 15th and ending approximately April 14th unless otherwise determined by the Board
- ▶ Customers must provide proof of alternate drinking water supply (well, NID potable water, certified spring, etc.)
- ▶ Service is commonly utilized for irrigation (when needed), stock water, and incidental in home use
- ▶ Requests for this service have increased due to dry shoulder seasons
- ▶ Provide service to roughly 588 accounts
- ▶ Service is billed on the same schedule as seasonal service
- ▶ Of the 161 NID canals, 91 offer this service
 - ▶ Service is limited to existing winter canals (will not be expanded)
- ▶ Service is labor intensive due to storm events through the winter

Winter Water Canals N.C.



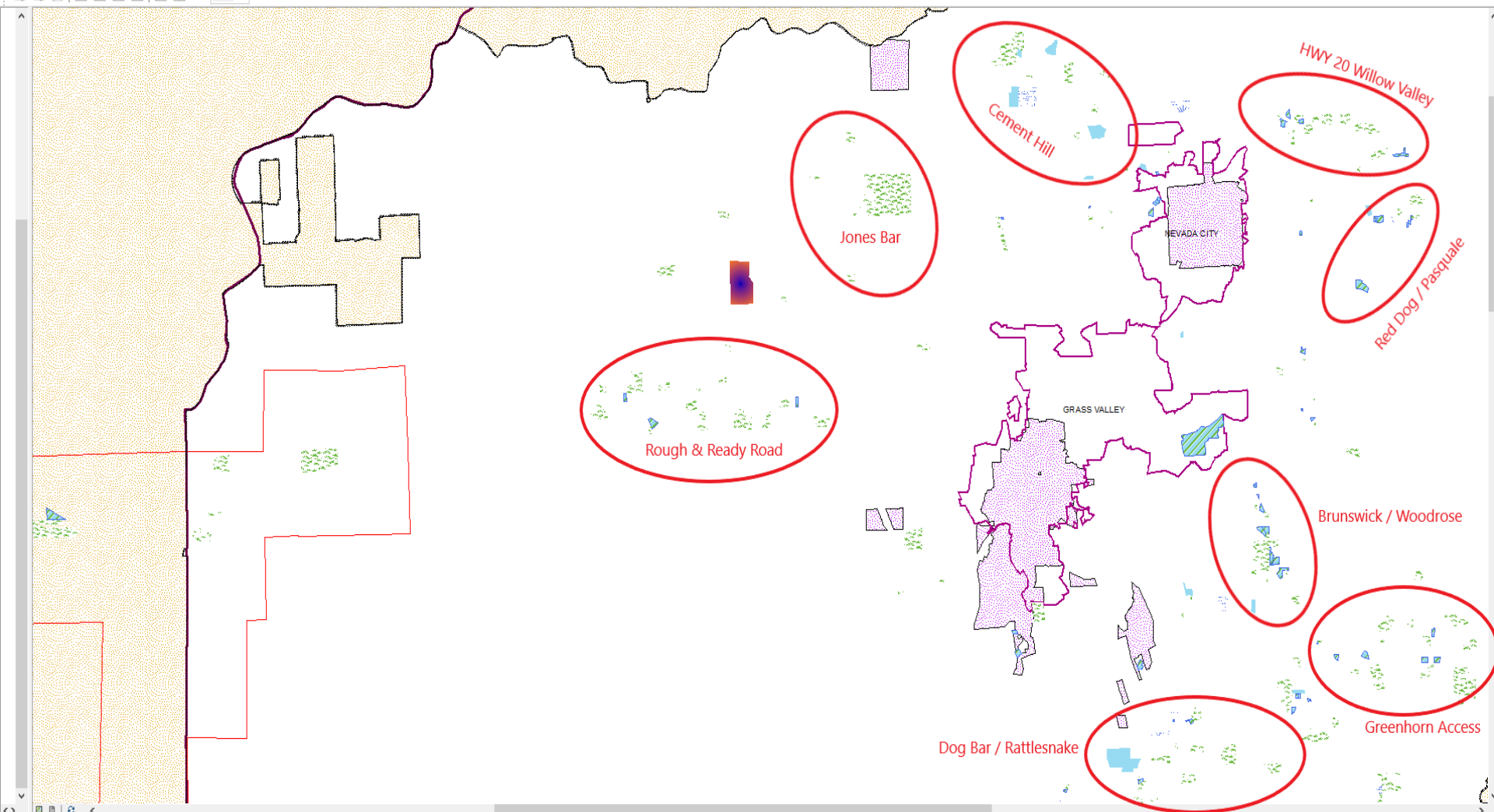
Cascade System	Deer Creek South	Deer Creek North	Combie Phase
Cascade	D.S.	Deer Creek Nat.	Combie Phase I
Cascade Pipe	Red Dog	Newtown	Magnolia III
Snow Mtn	Lower G.V.	Lester	Magnolia III Ext.
Willow Valley	Allison Ranch	Tunnel	Combie Phase II&III
Cement Hill	Corey	Riffle Box	Magnolia I
Lake Vera Pipe	Lafayette	Tunnel Ext.	Weeks
Sugar Loaf Res/Pipe	Rough & Ready	Rex Canal	Mag. II South
Red Hill	Wolf Creek Nat.	Portuguese	Mag. II North
Red Hill Res/Pipe	Tarr	Quincy	Markwell
Buffington	Breckenridge	Quincy Pipe	Wolf Hannaman
Upper G.V.	Clear Creek	Squirrel Creek Nat.	Sanford Struckman
Chicago Park	Beyers	China Union	
Sunshine Valley	Smith Gordon	Spenceville	
Sontag	Casey Loney	Meade	
Ripkin	Stinson Pipe	Ousley Bar	
Russ Reservoir	Pet Hill	Town	
Chicago Park East	Pet Hill Ext.	Farm	
Chicago Park West	Bald Hill	Smartsville Irrig.	
Meyer Beirwagen Pipe	B Canal	Keystone	
Smith Moulton	Cole Viet		
Blum Pipe	Miller		
John Henry Meyer	Wolf		
Rattlesnake	Pearl Barnes		
Woodpecker	Carpenter		
Forest Springs	Cole		
Maben			
Maben Res/Pipe			
Kyler			
Grove			
Cherry Creek			
O Leary Pipe			

Winter Water Canals P.C.

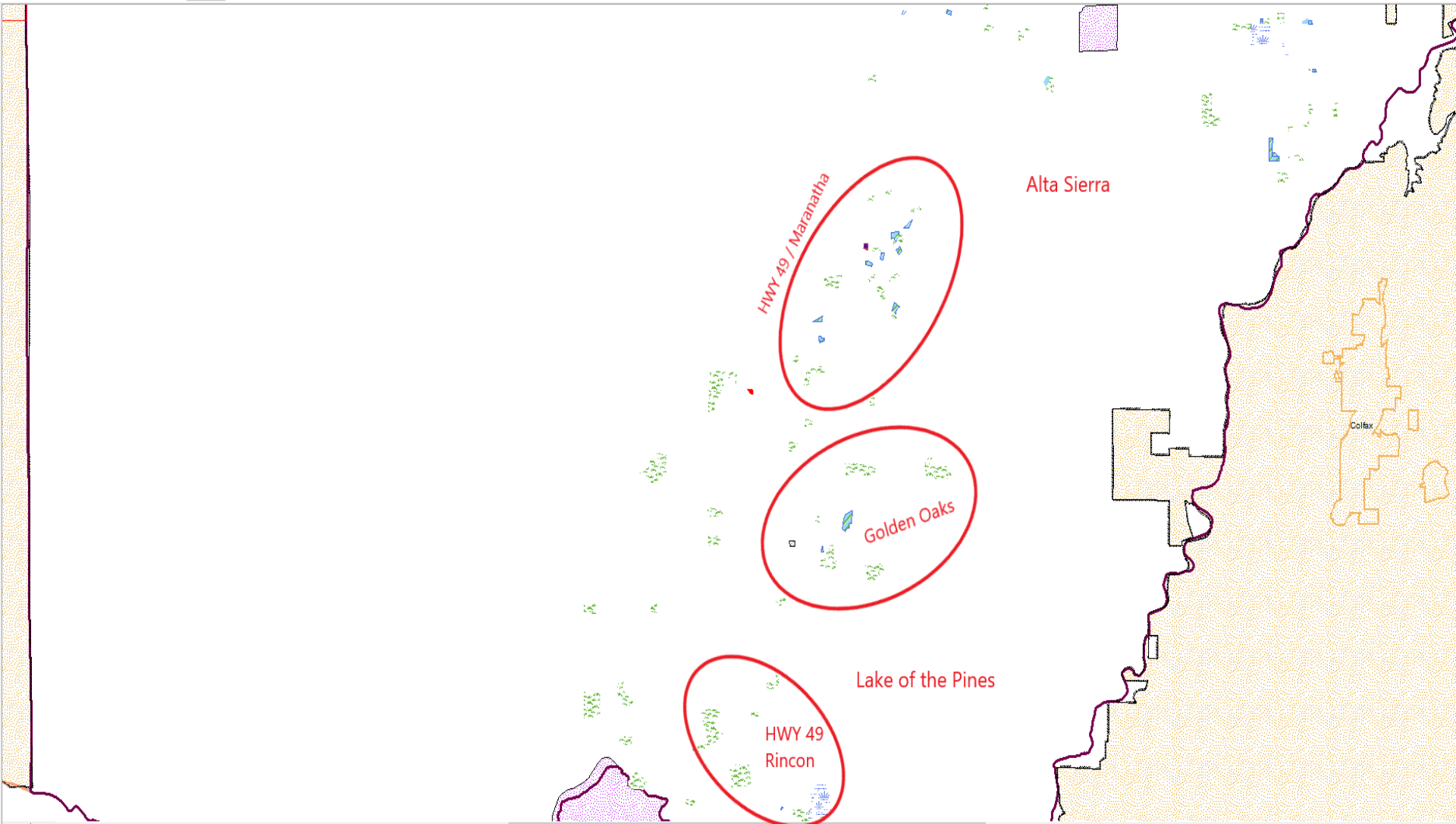


Combie Ophir	Combie Ophir (Cont)	Fiddler Green	Auburn Ravine
Combie Ophir I	Combie Ophir III	Fiddler Green	Auburn Ravine Nat.
Lone Star	Columbia East	Ophir	Auburn Ravine I
Rudd	Columbia West	Kemper	Chevallier Pipe
Rainey	Combie Ophir IV	East Kemper	Auburn Ravine II
Oest	Vernon	West Kemper	Lincoln
Willetts	Rohr-Shanley	Bean Cullers	Musser
Orr Creek Nat.	Herkomer Pipe	Edgewood Pipe	Markell
Gold Hill I	Dudley	Edgewood Canal	Fruitvale
Camp Far West	Gold Blossom		Sohier-Ahart
Lateral V	St. Patricks		Hayt
Lateral IV	Little Ophir		Doty
Lateral II	Hymas		Doty Natural
Lateral I	Gold Hill II		Doty South
Wiswell Gladding	Dead Mans Ravine		Doty North
Church	Whiskey Diggins		Comstock Gladding
Forbes	Old Whiskey Diggins		Clark Jorstad
Renken	Valley View		Hemphill
Bogdanoff	Kilaga Springs		
Camp Far West Ext	Nicklas		
Combie Ophir II	Livingston		
Picket	Rielli		
Beck	Iron Canyon		
Picket North	Thomas		
Picket South	Stringham		
Rock Creek Bypass	Files		

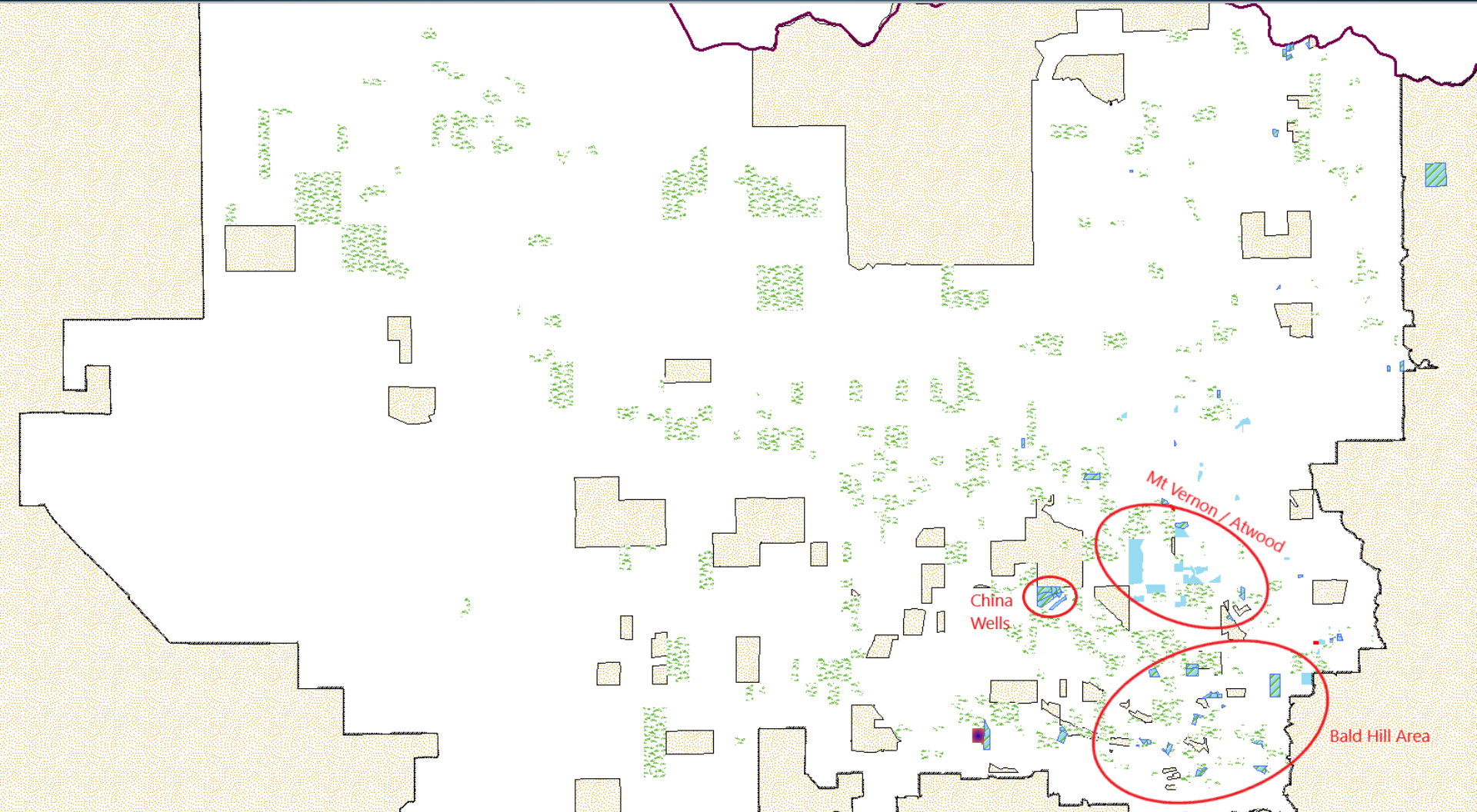
Winter Services Nevada County North



Winter Services Nevada County South



Winter Services Placer County





Questions?