

Certification of Self-Certified Conservation Standard

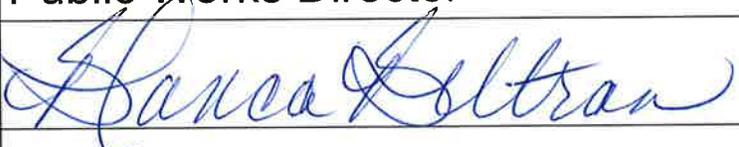
Certification of Self-Certified Conservation Standard Form

I hereby certify that: **Dinuba City of**

1. I will oversee, review, and take full responsibility for the completeness and accuracy of all data submitted to the State Water Resources Control Board as part of the reporting required pursuant to California Code of Regulations, title 23, section 864.5, subdivisions (a)(3) and (h);
2. I have the authority to make the aforesaid certifications on behalf of

Dinuba City of

I acknowledge that submitting any information required by California Code of Regulations, title 23, section 864.5, including this certification, that I know or should know to be materially false is a violation punishable by civil liability of up to five hundred dollars (\$500) for each day in which the violation occurs. Every day that the error goes uncorrected constitutes a separate violation. Civil liability for the violation is in addition to, and does not supersede or limit, any other remedies, civil or criminal.

Printed Name	Blanca Beltran
Title (General Manager or equivalent)	Public Works Director
Signature	
Date	June 21, 2016
Email Address	bbeltran@dinuba.ca.gov
Phone Number	559-591-5924

Please print, sign and submit completed form and upload the form to this weblink (see Step 5 of the online form): <http://drinc.ca.gov/dnn/applications/publicwatersystems/waterreliabilitycertification.aspx>

ATTACHMENT A

AMOUNT OF GROUNDWATER ACCESSIBLE TO CITY
OF DINUBA WELLS AS OF OCTOBER 1, 2016

The City of Dinuba has eight active wells. All of these wells were constructed after 1983 and were designed to produce potable groundwater. Almost all of the pumpage during the past three years have been from six wells that are located within a 480-acre area in Section 7, a 640-acre area in Section 18, a 480-acre area in Section 17, and a 160-acre area in Section 20, or a total of 1,460 acres. These wells all tap confined groundwater and the depression cones extend for a distance of about half a mile from each well. These areas account for the depression cones. The tops of the perforations in these wells range from 225 to 370 feet and average 305 feet in depth below land surface. The bottoms of the perforations in these wells range from 560 to 620 feet and average 590 feet in depth below the ground surface. Because all of these wells are sealed off opposite the strata above the top of a confining bed that is above the tops of the perforations, most of the groundwater considered accessible to these wells is located between about 300 and 600 feet in depth.

The amount of groundwater in storage is calculated by multiplying that saturated thickness of the subsurface deposits by the specific yield. Kenneth D. Schmidt & Associates (1990) prepared two subsurface geologic cross sections extending

through the city. Geologic logs were available for a number of deep test wells. Three logs which are considered representative were used to estimate specific yields for the aquifer tapped by the active City wells. The subsurface cross sections indicate that subsurface deposits below the water level are primarily sand or clay. Representative specific yields, taken from U.S. Geological Survey publications, are indicated to be 20 percent for the sand and 3 percent for the clay. The numbers were derived as follows:

<u>Test Well</u>	<u>Feet of Sand Below Tops of Perforations</u>	<u>Feet of Clay Below Tops of Perforations</u>
TW-A	105	185
TW-B	80	220
TW-C	50	260

Multiplying these thicknesses of sand and clay by the respective specific yields (discussed previously) yields the following:

<u>Test Well</u>	<u>Thickness x Specific Yield for Sand</u>	<u>Thickness x Specific Yield for Clay</u>
TW-A	21	5.5
TW-B	16	6.5
TW-C	10	8.0

The totals for the sand and clay combined are thus 26.5, 22.5 and 18.0, respectively, or a representative 22 feet of water. Multiplying this times 1,460 acres yields 32,000 acre-feet (rounded) of groundwater accessible to the existing City wells.

This is strictly from water in storage within the depression cones of the wells.

KDSA prepared a water-level elevation and direction of groundwater flow map for the aquifer tapped by deeper City wells for February 2003. The direction of groundwater flow was to the south-southwest and this direction is still indicated to be representative. This map indicates that the City wells can also access groundwater beneath other upgradient City lands. Most non-City wells in the vicinity normally tap only shallow groundwater (above a depth of 300 feet). Because of this, additional groundwater accessible to City wells is present in Section 8 (640 acres), and Section 9 (320 acres), or a total of 960 acres. This additional area would increase the accessible groundwater to existing City wells to about 2,420 acres times 22 feet, or 53,000 acre-feet (rounded). This groundwater in storage is also recharged, primarily by groundwater inflow from the north-northeast, which is another source of groundwater.

For comparison purposes, the total City pumpage in 2015 was 1,284.63 million gallons or 3,942 acre-feet. Pumpage in 2013 was 1,790.47 million gallons or 5,495 acre-feet.

ATTACHMENT B
 FEET OF WATER THAT CAN BE WITHDRAWN
 WITHOUT SUBSTANTIAL AFFECT ON ABILITY TO PUMP WATER

In order to evaluate this, the depths to the top of the perforations in the active wells were compared to maximum pumping levels measured during the summers of recent years. As long as pumping levels stay above the tops of the perforations, the ability to pump water remains the same (assuming adequate pump capacity is installed in each well). Following are the results of the evaluation:

<u>Well No.</u>	<u>Deepest Pumping Level (feet)</u>	<u>Top of Perforations (feet)</u>	<u>Available Drawdown (feet)</u>
14	186	225	39
15	159	370	221
16	197	395	149
19	100	230	130
20	160	320	160

Well No. 14 was by far the heaviest used City well in 2015. For the other wells with records, the available drawdowns ranged from 130 to 221 feet. This indicates the viability of City wells, and that they have a capacity to pump much more than the highest annual pumpage in recent years (almost 5,500 acre-feet). In addition, even if water levels fall slightly in the future, the City wells will continue to pump an adequate amount of water for City demands.

Step 2 of Water Supply Reliability Certification and Data Submission Form

<< Enter name of urban water supplier

User Input Instructions

- (1) Please select units of measure from the dropdown menu.
- (2) Enter information on available water supplies and supplies committed to other uses.

LEGEND:

User Input or Selection	<input type="text"/>
Linked from User Input	<input type="text"/>

<< Select units of measure

Available Water Supplies

Sources of Supply	Name of Provider(s) or Description	Source used in prior years?	Water Available in			Wholesaler information	Wholesaler Water System Number**
			WY 2017 *	WY 2018 *	WY 2019	Direct Web Link	
WHOLESALER SUPPLIED >> Provide direct web link(s) to information on the volume of water the wholesaler expects to deliver to the retailer water supplier in each year.							
Wholesaler 1		Select Y/N					
Wholesaler 2		Select Y/N					
Wholesaler 3		Select Y/N					
Wholesaler 4		Select Y/N					
Wholesaler 5		Select Y/N					
SELF-SUPPLIED							
Water Recycling (potable)		Select Y/N					
Surface water: SWP		Select Y/N					
Surface water: CVP		Select Y/N					
Surface water: Colorado River		Select Y/N					
Surface water: other (describe)		Select Y/N					
Surface water: other (describe)		Select Y/N					
Local Groundwater	City of Dinuba Limits	Yes	26,715.0	21,678.0	17,557.0		<< Complete groundwater tab
Seawater Desalination		Select Y/N					
Transfers		Select Y/N					
Exchanges		Select Y/N					
Other (describe):		Select Y/N					<< To add more self-supplied sources, insert as many rows
SUBTOTAL of available supplies (in units selected)			26,715.0	21,678.0	17,557.0		

* Any carryover from one year is incorporated in the supply of the following year, as legally allowed.

** Look up Water system number at this link: <https://sdwis.waterboards.ca.gov/PDWW/>

Rows can be inserted to account for other sources of supply (e.g., desalination of brackish water, banked water)

If a source has not been used in prior years, e.g., a new treatment facility will be constructed, supporting documentation must document when the new source will be fully implemented.

Water Supplies Committed to Other Uses (Not Available)

Other Uses	Describe	Quantity in WY 2017	Quantity in WY 2018	Quantity in WY 2019
Agriculture				
Commercial, industrial or institutional				
New residential customers				
Transfers				

Other:				
Other:				
	SUBTOTAL of supplies not available (in units selected)	-	-	-

TOTAL available water supply (in units selected)	26,715.0	21,678.0	17,557.0
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(Subtotal of available supplies minus subtotal of supplies committed to other uses)

>>> Please enter values calculated below in Step 2 of the online form

TOTAL available water supply converted to acre feet	26,715	21,678	17,557
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>> If error, verify you have selected units of measure