

# Appendix I

## Water Supply Assessment



## **Water Supply Assessment**

Fountain Wind Energy Project

June 8, 2020

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## Table of Contents

<b>ABBREVIATIONS .....</b>	<b>ii</b>
<b>1.0 SUMMARY.....</b>	<b>1.1</b>
<b>2.0 WATER SUPPLY PLANNING.....</b>	<b>2.1</b>
2.1 PROJECT WATER SUPPLY AND DEMAND .....	2.1
2.2 WATER SUPPLY ASSESSMENT .....	2.1
2.2.1 “Is it a Project Under SB 610?” .....	2.2
2.2.2 “Is There a Public Water System?” .....	2.3
2.2.3 “Is There a Current UWMP That Accounts for the Project Demand?” .....	2.3
2.2.4 “Is Groundwater a Component of the Supplies for the Project?” .....	2.4
2.2.5 “Are There Sufficient Supplies to Serve the Project Over the Next Twenty Years?” .....	2.6
<b>3.0 REFERENCES.....</b>	<b>3.1</b>
<b>LIST OF TABLES</b>	
Table 2-1: Estimated Annual Current Local Non-Project Groundwater Production From Existing Nearby Wells .....	2.7
<b>LIST OF FIGURES</b>	
Figure 1-1: Project Vicinity .....	1.2



## Abbreviations

af	Acre-feet
afy	Acre-feet per year
BWD	Burney Water District
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CASGEM	California Statewide Groundwater Elevation Monitoring
CEQA	California Environmental Quality Act
DWR	California Department of Water Resources
ft bgs	Feet below ground surface
gpcd	Gallons per capita per day
GSA	Groundwater Sustainability Agency
Fountain Wind	Fountain Wind, LLC
GSP	Groundwater Sustainability Plan
NFPA	National Fire Protection Agency
O&M	operations and maintenance
Project	Fountain Wind Energy Project
SB	Senate Bill
SGMA	Sustainable Groundwater Management Act of 2014
SR	State Route
SRRA	Safety Roadside Rest Area
SWRCBDDW	State Water Resources Control Board Division of Drinking Water
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment



# WATER SUPPLY ASSESSMENT

## Summary

### 1.0 SUMMARY

Stantec Consulting Services Inc. (Stantec) has completed a Water Supply Assessment (WSA) for Report Title (Project) on behalf of Shasta County, the CEQA Lead Agency for the Project. The Project would span approximately 4,600 acres of forested land in unincorporated Shasta County, California. Project construction and long-term operation includes the use of potable water from one or more new onsite water supply wells or the importation of water by truck from the Burney Water District (BWD). This WSA was conducted in conformance with the requirements of the California Water Code.

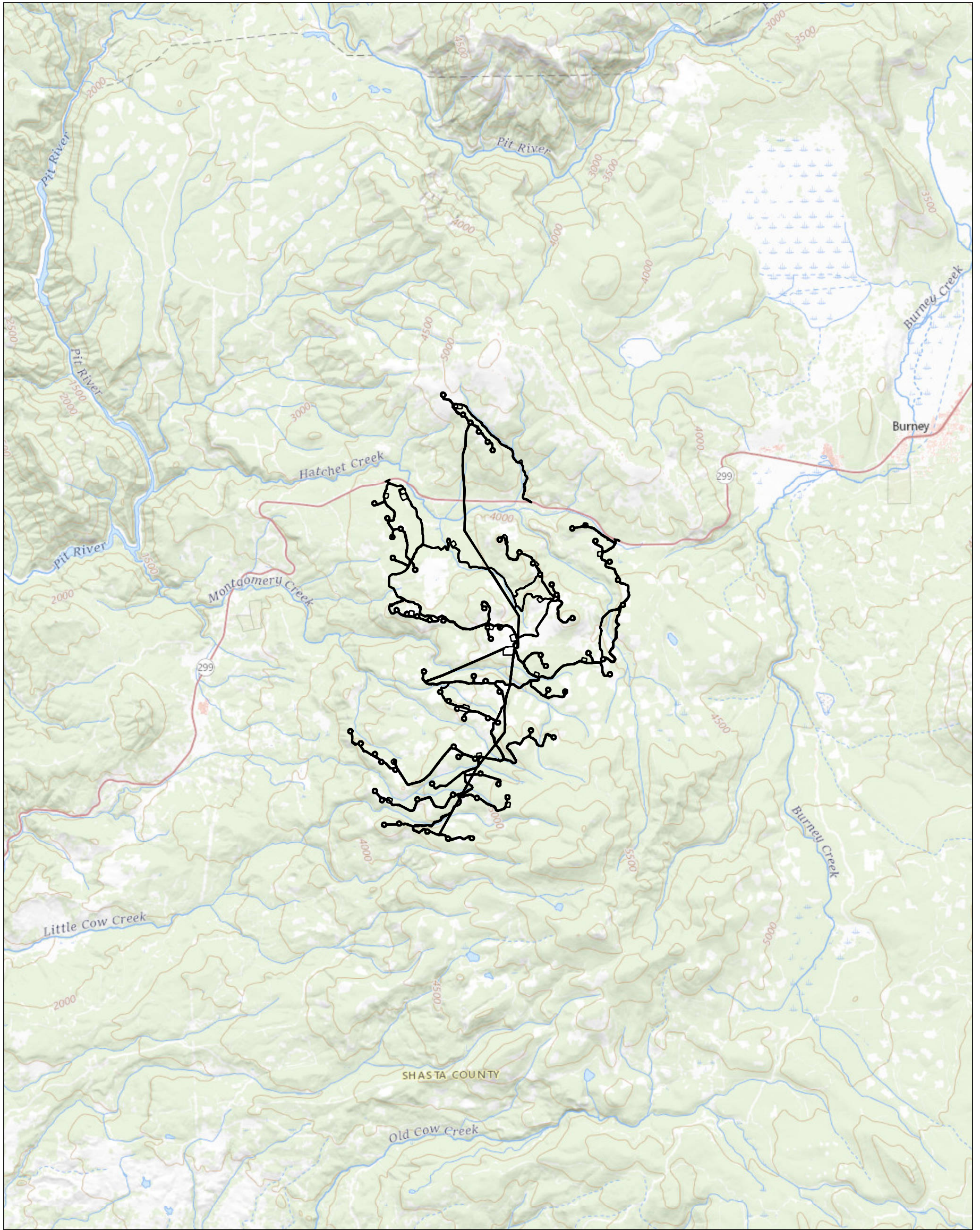
The Project is located in eastern Shasta County approximately six miles west of the unincorporated town of Burney and about 35 miles northeast of Redding. The Project is accessed by State Route (SR) 299, which bisects the Project. The Project area and boundaries are presented on Figure 1-1.

Stantec analyzed water supplies available to serve the project, as well as the water demand anticipated during construction and through operation of the facility. According to the requirements of Water Code Section 10910(c)(4):

*“If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.”*



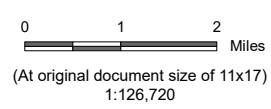




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**Legend**  
 Project Site



**Project Location**  
 Shasta County  
 California

Prepared by GC on 2020-06-02  
 Reviewed by CB on 2020-06-02

**Client/Project**  
 Fountain Wind Project  
 Fountain Wind LLC

185804576

**Figure No.**  
 1-1

**DRAFT**

**Title**  
 Project Vicinity

- Notes**
1. Coordinate System: NAD 1983 UTM Zone 10N
  2. Data Sources: Fountain Wind LLC, Stantec
  3. Background: The National Map - USGS Topographic Base Map



## WATER SUPPLY ASSESSMENT

### Summary

The following are primary conclusions of the WSA:

- The project meets the definition of a "project" under Water Code Section 10912(a)(5).
- The project is located in a rural setting and will not be served by a public water system. Therefore, under Water Code section 10910(b), Shasta County is preparing this water supply assessment in accordance with the guidance in Water Code section 10910(c)(4).
- There is no current Urban Water Management Plan (UWMP) that accounts for the project or other demand.
- The groundwater supply would be extracted from fractured volcanic bedrock terrain not affiliated with any California Department of Water Resources (DWR) Bulletin 118 groundwater basin. As a result, no groundwater sustainability agency (GSA) has been formed to serve this Basin, and management of this Basin is assumed by Shasta County.
- Owing to the absence of a DWR Bulletin 118 designated groundwater basin in the Project Site, a Groundwater Sustainability Plan (GSP) is not required under the Sustainable Groundwater Management Act (SGMA).
- Groundwater production in the Project Site is not adjudicated and there are no known groundwater rights holders.
- Groundwater storage on the Project Site cannot be estimated due to the lack of a definable groundwater basin and because the Project Site is underlain by thick accumulations of volcanic rock. Groundwater is assumed to occur in fractures and possible thin semi-permeable layers in some volcanic rocks beneath the Project Site. However, well yields in these rocks are relatively low and range between 1.5 and 63 gallons per minute (gpm) based on available well completion report data (DWR, 2018) for wells located within 1 mile of State Route (SR) 299 and within 2 miles of the proposed O&M facility.
- It is understood and believed that water demand from other uses overlaying this fractured volcanic bedrock terrain is very low and is limited to scattered residences. The County is not aware of any historic or current concerns about groundwater shortages for any existing users and is not aware of any future development that is planned for this area that would create a new large source of demand for groundwater.
- Water to be used for the construction of project facilities, dust control, soils compaction, and concrete manufacture will consist of groundwater pumped from one or more new, onsite water supply wells located at the project Operations and Maintenance (O&M) facility or from an offsite public water system such as BWD located six miles east-northeast of the Project. Potable water supplies may also be met by pumping from one or more new onsite wells at the proposed O&M facility.
- Estimated total water demand for construction of the Project, dust control, soils compaction, and concrete manufacture is 49 acre-feet (af).
- Estimated annual water demand for operations and maintenance at the Project is up to 5.6 acre-feet per year (afy) for vehicle and equipment washing and maintenance, potable water supplies for 12 full-time employees, and water storage to meet Shasta County fire flow requirements.
- According to State Water Resources Control Board Division of Water Rights (SWRCBDWR) there is one surface water rights adjudication in the southern portion of the Project for Cedar Creek and North



## WATER SUPPLY ASSESSMENT

### Summary

Fork Cow Creek, and one surface water adjudication in the eastern portion of the Project for Burney Creek. However, operation of a proposed onsite water supply well at the proposed O&M facility is not expected to impact these surface water rights holders because the proposed well(s) will be more than five, six, and seven miles from Cedar Creek, North Fork Cow Creek and Burney Creek, respectively.

- It is our conclusion that there is sufficient water supply available to serve the Fountain Wind Energy Project as proposed as well as existing and planned future uses, including agricultural and manufacturing uses during a 20-year projection and no further analysis is required.





## WATER SUPPLY ASSESSMENT

### Water Supply Planning

## 2.0 WATER SUPPLY PLANNING

### 2.1 PROJECT WATER SUPPLY AND DEMAND

Most of the water to be used by the Project will be during wind turbine, collector line, and related facilities construction for dust suppression, soil backfill compaction, and concrete manufacture. An estimated 49-acre feet (af) of water will be required for construction-related activities. Construction water will consist of groundwater pumped from the underlying fractured volcanic bedrock using one or more proposed new, onsite water supply wells located at the proposed Operations and Maintenance (O&M facility) facility, or delivered by a water supply contractor from an offsite, existing public water system, such as the nearby Burney Water District (BWD) located approximately 6 miles east-northeast of the project.

Estimated O&M annual water demand for the Project is up to 5.6 afy (approximately 5,000 gallons per day [gpd]) for the proposed O&M facility including potable water demands for 12 full-time employees, equipment maintenance and washing, and emergency fire suppression. The estimated potable water demand is relatively low at 30 gallons per capita per day (gpcd) (equivalent to 0.4 afy) because the O&M employees will be working throughout the Project site and only occasionally visit the O&M facility. In addition, the restroom and other potable water facilities at the O&M building will be designed to conserve water (e.g. low flush toilets, low flow sinks, etc.).

O&M water demand also includes onsite fire flow water storage to meet fire flow requirements in accordance with Shasta County Code of Ordinances Title 16 Buildings and Construction, Chapter 16.04.130 Fire Standards and Equipment (Ordinance No. 2019-06 (2019) and 2019 California Fire Code (California Code of Regulations Title 24 Part 9). The estimated minimum fire flow water supply required for the proposed O&M facility per National Fire Protection Association (NFPA) 1142 (NFPA, 2017) Equation 4.3.1 for structures with exposure hazards is 28,665 gallons (0.09 af) but may range up to 2,000 gpm for two hours or 240,000 gallons (0.74 af) depending on final Shasta County fire flow water storage requirements. Together, the resulting first year O&M potable and fire flow water demand is estimated to range between approximately 0.5 af and 1.14 af, depending on final Shasta County fire flow water storage requirements. The potable and fire flow requirements may decline in subsequent years to 0.4 afy.

Construction and operation of one or more water supply wells for construction and long-term O&M activities will also comply with all federal, state, and local laws and ordinances and will be in conformance with applicable mitigation measures for this Project. If delivery of off-site water from BWD is pursued, all deliveries of water to the site will also comply with all federal, state, and local laws and ordinances and will be in conformance with applicable mitigation measures for this Project.

### 2.2 WATER SUPPLY ASSESSMENT

SB 610 was passed into law on January 1, 2002. This legislation identified the need to incorporate water supply and demand analysis at the earliest possible stage in the planning process. SB 610 amended



## WATER SUPPLY ASSESSMENT

### Water Supply Planning

portions of the California Water Code (Water Code), including Section 10631, which contains the Urban Water Management Planning Act, as well as adding Sections 10910, 10911, 10912, 10913, and 10915, which describe the required elements of a WSA.

#### 2.2.1 “Is it a Project Under SB 610?”

The first step in the WSA process is determining whether the project is subject to CEQA. SB 610 amended Public Resources Code Section 21151.9 to read: *Whenever a city or county determines that a project, as defined in Section 10912 of the [California] Water Code, is subject to this division [i.e., CEQA] it shall comply with part 2.10 (commencing with Section 10910 of Division 6 of the Water Code).* The proposed project is currently under environmental review pursuant to the requirements of CEQA; therefore, the information contained in this assessment may be used to support the analysis contained in the CEQA document.

The second step in the SB 610 process is to determine if a project meets the definition of a "Project" under Water Code Section 10912(a) and (b). Under this section,

(a) "Project" means any of the following:

- 1) A proposed residential development of more than 500 dwelling units.
- 2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- 3) A proposed commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor area.
- 4) A hotel or motel with more than 500 rooms.
- 5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- 6) A mixed-use project that includes one or more specified in this subdivision.
- 7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase in 10 percent or more in the number of the public water system's existing service connections.



## WATER SUPPLY ASSESSMENT

### Water Supply Planning

The Project will occupy approximately 4,463 acres and will include a proposed permanent O&M facility that will be less than 6,000 square feet (5,460 square feet) within a 5-acre parcel. The proposed Fountain Wind Energy Project is considered to be a project pursuant to Section 10912(a)(5) of the Water Code because it is an industrial plant occupying more than 40 acres of land. Parcels crossed for turbine installation and conveyance are zoned as Timber (T) and Timber Production (TP).

#### 2.2.2 “Is There a Public Water System?”

The second step in the WSA process is determining if there is a "public water system" to serve the project. Section 10912(c) of the California Water Code (Water Code) states: “[A] public water system means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections.”

The proposed project is not within the service area of a public water system but the project may purchase water from the BWD and truck it on site. The closest public water system to the proposed Project is the BWD located approximately 6 miles east-northeast of the Project. BWD operates a public water system (CA4510003) and sewer system in the unincorporated town of Burney. BWD is an independent special district formed as a county water district under California Water Code Section 30000 et seq. In 2019, BWD served a population of 3,154 persons from 1,267 service connections (BWD, 2020).

*Municipal water demands are met by the extraction of local groundwater through the operation of three water supply wells, Wells 6, 7 and 8, according to the State Water Resources Control Board Division of Drinking Water (SWRCBDDW) State Drinking Water Information System (SDWIS) website (accessed on May 26, 2020), and the Burney Water District Water Master Plan (PACE, 2014). Total groundwater pumped from the three wells and metered groundwater deliveries in 2019 were 1,353 af and 1,145 af, respectively (BWD, 2020). The current production capacity of the three BWD wells is 4,600 gpm or 7,420 afy, if operated continuously. Therefore, if water is obtained from the BWD, there is sufficient water supply capacity to meet the estimated additional temporary water supply demand of 49 af for the construction of project facilities.*

#### 2.2.3 “Is There a Current UWMP That Accounts for the Project Demand?”

Step four in the WSA process involves determining if there is a current UWMP that considers the projected water demand for the Project Site. The Project is not within the service area of a public water system and there is no applicable UWMP. Construction water demands are estimated to be approximately 49 af.

Estimated O&M annual water demand for the Project is up to 5.6 afy for the proposed O&M facility including potable water demands for 12 full-time employees, equipment maintenance and washing, and emergency fire suppression. The estimated potable water demand is 30 gpcd (0.4 afy). The estimated O&M water demand also includes onsite fire flow water storage to meet Shasta County Code of Ordinances Title 16 Buildings and Construction, Chapter 16.04.130 Fire Standards and Equipment (Ordinance No. 2019-06 (2019) and 2019 California Fire Code (California Code of Regulations Title 24 Part 9) fire flow requirements. The estimated minimum fire flow water supply required for the proposed



## WATER SUPPLY ASSESSMENT

### Water Supply Planning

O&M facility per NFPA 1142 (NFPA, 2017) Equation 4.3.1 for structures with exposure hazards is 28,665 gallons (0.09 af), but could also be conservatively assumed to be 2,000 gpm for 2 hours or 240,000 gallon. Annual O&M water of approximately 0.4 af will be supplied by an onsite water supply well with an estimated minimum production capacity of approximately 11 gpm. However, water demand during the first year of operation may be considerably higher to account for the filling of a fire flow water storage tank which may range between 30,000 and 240,000 gallons depending on Shasta County final fire flow water storage requirements.

#### 2.2.4 “Is Groundwater a Component of the Supplies for the Project?”

This section addresses the requirements of Water Code Section 10910(f), paragraphs 1 through 5, which apply if groundwater is a source of supply for a proposed project. Pursuant to Water Code Section 10910(f); the groundwater analysis presented in this WSA focuses on the volcanic terrain underlying the Project Site and the wells operated by the BWD.

##### 2.2.4.1 Geologic and Hydrogeologic Conditions

The Project is in rural, mountainous terrain that is not within a defined DWR Bulletin 118 (2016) groundwater basin. The Project Site is also located in the Sacramento River Hydrologic Region (DWR, 2013, 2019). The closest DWR 118-designated groundwater basins to the Project include the Burney Creek Valley Basin (Basin No. 5-047), Goose Valley Basin (Basin No. 5-047), and Dry Burney Creek Valley Basin (5-049). These groundwater basins are listed as Very Low Priority on the SGMA Basin Prioritization Dashboard.

The Project occurs within the Cascade Range Geomorphic province of California (California Geological Survey, 2002). The Cascade Range consists of a northerly trending chain of volcanoes and related deposits extending from northern California to southern British Columbia. In northern California, the Cascade Range extends from south of Mount Lassen (Lassen Peak) to the Oregon border. The subsurface geology within the Project Site is predominantly ash, lava flows of various chemical composition (predominantly basalt and andesite), and debris flows (lahars), the latter, containing chaotic mixtures of sand, silt, clay, ash and rock. The Project Site is underlain by a thick accumulation of individual layers of these varying types of volcanic deposits.

Groundwater in the underlying volcanic deposits is primarily contained within fractures and in discontinuous layers of weathered volcanic rocks or debris flows and is largely derived from the infiltration of direct precipitation and snowmelt, and infiltration along creeks and downstream of spring discharges. The thickness of the volcanic deposits underlying the Project has not been determined but is considered to be relatively thick based on the relatively long period of volcanism in the area. Owing to the highly fractured nature of the underlying volcanic rocks, numerous springs have developed throughout the Project Site and contribute to streamflow.

Lithologic logs of 33 domestic wells drilled within 1 mile of SR 299 and within 2 miles of the proposed O&M facility are of inconsistent quality, but indicate the underlying geology to a maximum depth of 364 feet below ground surface (ft bgs) consists of highly variable thicknesses and sequences of layers and



## WATER SUPPLY ASSESSMENT

### Water Supply Planning

mixtures of lava, cinders, ash, gravel, sand, silt, and clay (DWR 2020a). Descriptions of some of the mixed layers of gravel, silt and clay may constitute volcanic mudflow deposits or lahars. In addition, some deposits are reported to contain clay from the chemical weathering of certain minerals in lava flows and ash layers or lava and ash fragments in lahars.

All 33 wells were drilled for domestic use. Well completion depths generally matched the drilled depth or contained well casing to a lesser depth and the remainder of the borehole was open to the natural rock formations. Initial well yield (by airlifting or pumping) reported in wells located within 1 mile of SR 299 is relatively low and varies between 1.5 and 66 gpm. Initial estimated well yield in the nine wells (one destroyed) located within 2 miles of the proposed O&M facility and water supply well(s), ranges between 6 and 60 gpm and averages 20.2 gpm.

Depth to groundwater in 29 of the 33 wells located within 1 mile of SR 299 is highly variable and ranges between 5 and 238.5 ft bgs. Groundwater levels in the nine wells (one destroyed) located within 2 miles of the proposed O&M facility range between 10 and 238.5 ft bgs. The highly variable nature of the water level data precludes the development of a groundwater contour map or an understanding of the direction(s) of groundwater flow. There are no California Statewide Groundwater Elevation Monitoring (CASGEM) wells monitored under Senate Bill x7-6 (2009) for groundwater levels due to the lack of groundwater basin designation.

#### 2.2.4.2 Water Demands

There are two sources of demand drawing groundwater from existing wells in the area where the new wells would be drilled to serve the Project. According to the SWRCBDDW SDWIS (SWRCBDDW v. 3.2.1), two small, public water systems are located adjacent to or near the Project Site, including California Department of Transportation (Caltrans) Hillcrest Safety Roadside Rest Area (SRRA)(Water System No. CA4500283), and Moose Camp (Water System No.CA4500017). Caltrans Hillcrest SRRA owns and operates one public (domestic) water supply well, Well 1 (listed as Well WW-2 on the Well Completion Report). This well is located less than 2 miles west of the proposed O&M facility. The initial estimated well yield was reported to be 29 gpm. The estimated annual population served at the Hillcrest SRRA per the SWRCBDDW SDWIS is 2,500 through one service connection.

Moose Camp owns and operates two domestic water supply wells, Wells 2 and 3. According to a water system map on the Moose Camp website, Wells 2 and 3 are located about 1 mile southeast of the proposed O&M facility (Moose Camp 2007). The Well Completion Report for Well 2 was not included in the online DWR Well Completion Report Application or was not properly identified by the drilling contractor. As a result, the initial estimated yield at Well 2 was not determined. The initial estimated yield at Well 3 was reported to be 12 gpm. According to SWRCBDDW SDWIS, the estimated population served at Moose Camp is 77 persons through 51 service connections.

Although not listed on SWRCBDDW SDWIS public water system link, a domestic well was installed at California Department of Forestry and Fire Protection (CAL FIRE) Hillcrest Forest Fire Station No. 75 in May 1974. This facility is located on SR 299 about 1.5 miles west of the proposed O&M facility. The initial estimated yield at this well was reported to be 30 gpm; it is uncertain if the well is still operating.





## WATER SUPPLY ASSESSMENT

### Water Supply Planning

BWD's municipal water demands are met by the extraction of local groundwater through the operation of three water supply wells, Wells 6, 7 and 8, according to the State Water Resources Control Board Division of Drinking Water (SWRCBDDW) State Drinking Water Information System (SDWIS) website (accessed on May 26, 2020), and the Burney Water District Water Master Plan (PACE, 2014). Total groundwater pumped from the three wells and metered groundwater deliveries in 2019 were 1,353 af and 1,145 af, respectively (BWD, 2020). The current production capacity of the three BWD wells is 4,600 gpm or 7,420 afy, if operated continuously. Therefore, if water is obtained from the BWD, there is sufficient water supply capacity to meet the estimated additional temporary water supply demand of 49 af for the construction of project facilities.

Groundwater purchased from BWD or withdrawn from a new well at the O&M facility, is anticipated to provide the estimated 49 af of water supply for site development and construction of Project facilities. Either option would be considered a *de minimis* water use (see Section 2.2.5.2 for further analysis). Groundwater is also anticipated to provide the estimated O&M, potable, and fire flow water demands for the Project. This estimated long-term water demand is up to 5.6 afy. Based on the existing groundwater levels within and near the Project Site and the projected future annual population served by existing wells, the estimated quantity of groundwater to be extracted for the proposed Project for O&M, potable and fire flow purposes is considered to be a *de minimis* water use.

#### 2.2.4.3 Groundwater Sustainability Plans

As noted, the Project is not located within a DWR Bulletin 118-designated groundwater basin and is not subject to SGMA. Therefore, no GSP is required.

### 2.2.5 "Are There Sufficient Supplies to Serve the Project Over the Next Twenty Years?"

The next step in the WSA process is to prepare the actual assessment of the available water supplies, including the availability of these supplies in all water-year conditions over a 20-year planning horizon, and an assessment of how these supplies relate to project-specific and cumulative demands over that same 20-year period. To be consistent, the analysis horizon of this WSA extends to 2040. Water Code Section 10910(c)(4) states:

*"If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses."*

The amount of groundwater in storage in the fractured volcanic deposits underlying the Project Site is unknown owing to the lack of defined basin boundaries and saturated layers for the storage of groundwater.

Development of a water budget to account for surface water and groundwater inflow and outflow is not



## WATER SUPPLY ASSESSMENT

### Water Supply Planning

feasible owing to the general lack of data on inflow (e.g., precipitation and streamflow recharge) and outflow components (e.g., groundwater production and consumptive use [population served]). In addition, none of the springs or streams in the Project Site possess flow gauges to measure outflow. However, a preliminary estimate of current annual local non-Project groundwater production is presented below in Table 2-1 based on the population served estimates and water use assumptions indicated in the table.

**Table 2-1: Estimated Annual Current Local Non-Project Groundwater Production From Existing Nearby Wells**

Site	Use Type	Population Served (persons)	GPCD <sup>1</sup>	Estimated Total Water Use Per Day (gpd)	Estimated Total Annual Water Use (afy)
Moose Camp	Continuous occupancy	129	224	28,896	32.4
CAL FIRE Forest Fire Station No. 75		4	224	896	1.0
Site	Use Type	Visitors Per Year (persons)	Estimated Annual Water Use Per Person (gal)		Estimated Total Annual Water Use (afy)
Caltrans Hillcrest SRRA	Intermittent	2,500	15		0.1
Site	Use Type	Area (acres)	Estimated Unit Consumptive Use Per Acre (af/acre)		Estimated Total Annual Water Use (afy) <sup>2</sup>
Irrigated land (T35N/R1E-34R)	Irrigation	3	3.5		10.5
<b>Grand Total</b>					<b>44</b>

Notes:

1. Based on City of Redding 2015 Urban Water Management Plan 2020 per capita water use target (City of Redding, 2016)
  2. Calculation assumes one crop growth per year
- af = acre-foot  
 afy = acre-feet per year  
 gal = gallons  
 GPCD = gallons per capita per day  
 gpy = gallons per year  
 gpd = gallons per day  
 SRRA = Safety Roadside Rest Area

As shown in Table 2-1, the total estimated current annual local non-Project groundwater production near the Project Site is approximately 44 afy.

### 2.2.5.1 Project-Site Demands

Historically, there has been localized consumptive demand in the vicinity of the Project Site. Operation and maintenance of the Project will require an annual demand of up to 5.6 afy for potable use and to meet fire flow requirements, with an actual expected demand of 0.5 afy. This demand is anticipated to remain constant throughout the life of the Project.



## WATER SUPPLY ASSESSMENT

### Water Supply Planning

#### 2.2.5.2 Comparison of Available Water Supplies Versus Demand

Section 10910 (c)(4) of the Water Code states:

*“If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.”*

#### Onsite Well Option

The Project does not overlie a defined groundwater basin or subbasin, and, as a result, there is no GSA or GSP, and limited quantifiable data exist to support groundwater storage or budget estimates. However, the Project will require 49 af of water for up to 24 months of construction (24.5 afy), which is approximately half the combined annual groundwater production of the four closest non-Project groundwater users to the proposed O&M facility (Table 2-1). In addition, the long-term, O&M water use is projected to be as much as 5.6 afy, which is approximately one-eighth the combined annual groundwater production of the four closest non-Project groundwater users to the proposed O&M facility (Table 2-1). Though existing water supplies have not been quantified, the estimated annual O&M water demand of the Project represents a de minimis use compared with existing groundwater withdrawals, and will have a negligible contribution to existing groundwater supplies under all water year conditions.

#### Burney Water District Option

The current production capacity of the three BWD wells located approximately seven miles east-northeast of the project, is 4,600 gpm, or 7,420 afy, if operated continuously, with only one foot of drawdown (PACE, 2014). This indicates that the impact to groundwater supplies is negligible even with all three wells operating at capacity. In addition, the BWD's current effective system source capacity is 4.3 million gallons per day, or 4,816 afy. Because the project will only temporarily require 49 af of water for construction and up to 5.6 afy for O&M, the estimated annual demand for the Project represents a de minimis use compared with existing production capacity. Therefore, there are adequate supplies available to serve the proposed Fountain Wind Energy Project under all water year conditions.



## WATER SUPPLY ASSESSMENT

### References

## 3.0 REFERENCES

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