

## 4.11. PUBLIC SERVICES AND UTILITIES

### 4.11.1 INTRODUCTION

The Public Services and Utilities chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the proposed project on various public services and utility systems, including but not limited to fire protection, law enforcement, schools, parks and recreation, water supply, wastewater systems, solid waste disposal, and electrical utilities. Information for the Public Services and Utilities chapter was primarily drawn from direct communications with public service providers who would serve the proposed project, as well as technical documentation, such as the Water Supply Assessment prepared for the project by West Yost (Appendix N),<sup>1</sup> and the septic system analysis prepared by Navo & Sons (Appendix H.8).<sup>2</sup>

### 4.11.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing public services and utilities in the project area.

#### **Fire Protection**

Several fire agencies provide fire protection services within the project area, including both wildland fire and structural fire response. The Centennial Industrial Site is located within both the Nevada County Consolidated Fire District (NCCFD) and the Ophir Hill Fire Protection District (FPD), whereas the Brunswick Industrial Site is located entirely within the Ophir Hill FPD (see Figure 4.11-1). These two fire districts are described below, as well as the other fire agencies who could provide services to the project site based on mutual aid or other agreements.

#### **Nevada County Consolidated Fire District**

NCCFD provides fire protection and emergency rescue service to a large area of approximately 140 square miles in western Nevada County, including the Alta Sierra community and the areas surrounding Grass Valley and Nevada City. The District is bordered by Penn Valley and Rough and Ready FPD on the west, Ophir Hill and Peardale-Chicago Park FPDs on the east, and Higgins Area FPD on the south. The northern boundary of the District abuts mostly public lands along the south side of the South Yuba River (on the north, North San Juan FPD extends to the centerline of the river).

The NCCFD was established in 1991 as a result of the consolidation of the Gold Flat and Bullion FPDs. Subsequent reorganizations expanded the District by bringing in Alta-Oaks Sunset FPD in 1992, Watt Park FPD in 1997, and Forty-Niner FPD in 2003.

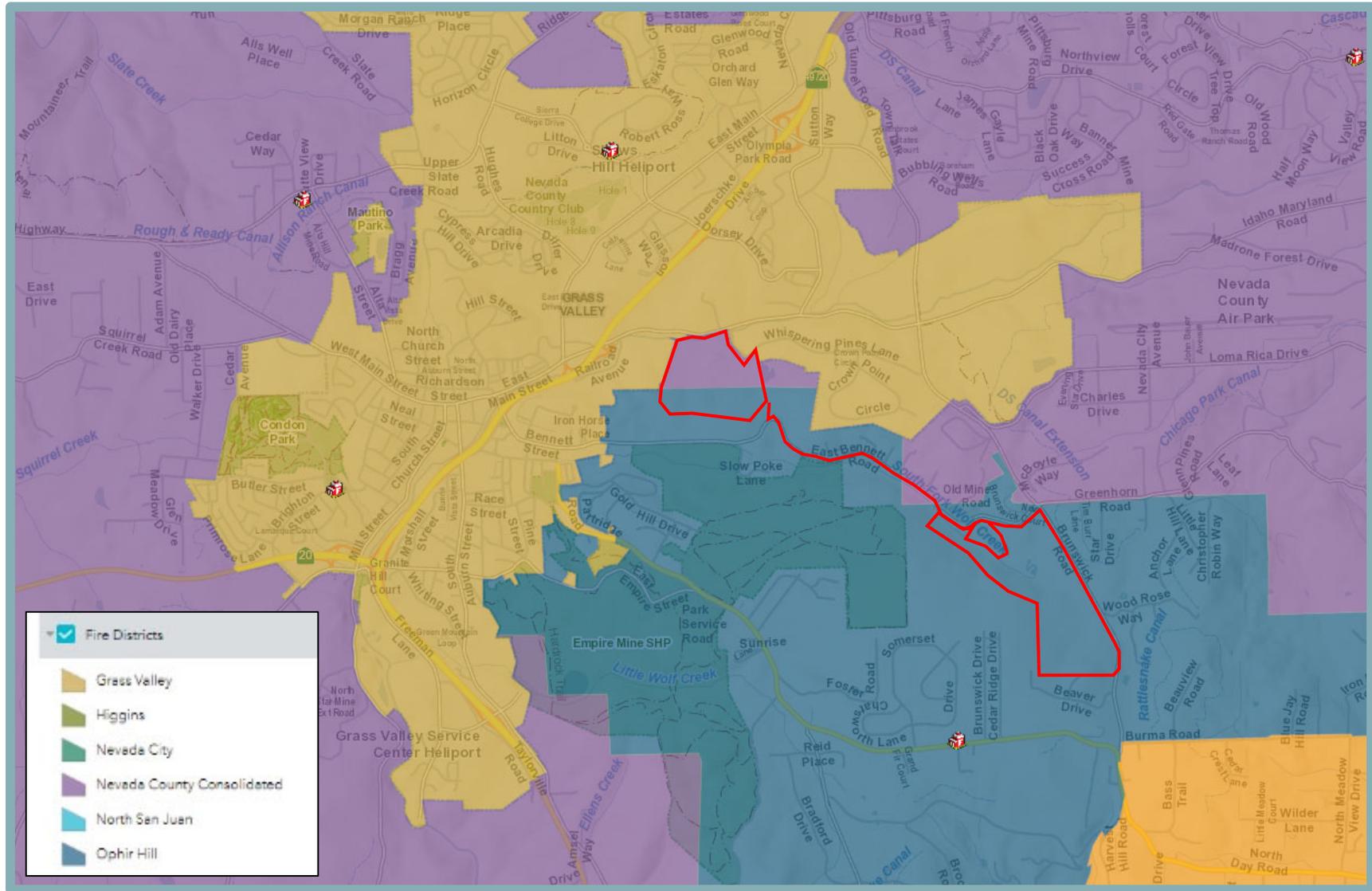
Much of the District has semi-rural/suburban low-density residential development. A handful of agricultural areas persist, along with some forested and converted mining territories.

<sup>1</sup> West Yost. *Idaho-Maryland Mine Water Supply Assessment*. December 1, 2021.

<sup>2</sup> Navo & Sons, Inc. *12791 Brunswick Rd. Septic System Analysis*. October 28, 2019.



**Figure 4.11-1  
Fire District Boundaries**



In February 2014, a Joint Operations Agreement (JOA) was entered into between the City of Nevada City, the City of Grass Valley and NCCFD for the purpose of providing reciprocal fire protection and related services. The JOA provides for the Grass Valley Fire Department (GVFD), Nevada City Fire Department (NCFD) and NCCFD to operate under a Boundary Drop/Closest resource response plan, under which the closest fire engine to an incident will be dispatched or multiple engines can be dispatched for larger incidents, regardless of jurisdiction. For example, according to the JOA Response Policy, for structural fires, four engines would be dispatched to an incident within the County.<sup>3</sup> As will be further discussed below, the Grass Valley and Nevada City Fire Departments have recently merged.

The three agencies are the only departments in the County operating under this agreement and over time have evolved into a very codependent system. While the JOA satisfies the everyday operational needs of the three agencies, for significant incidents, the JOA still depends on automatic or mutual aid from other agencies in the area and reciprocates by assisting those agencies when requested.

The nearest NCCFD station to the project site is Station 86. Station 86 is located at 12337 Banner Lava Cap, Nevada City. The station houses an E-86, a Type 2 Engine specially designed for the Banner Mountain Area, with a 600-gallon water tank and 1,000 gallons per minute pump. Station 86 also includes Squad 86, which is used as a snowplow for the District during snow storms. Station 86 has full time staffing 24 hours a day, 7 days a week.<sup>4</sup> To do this the District has three shifts (A, B, C) that work 48 hours, with 96 hours off. A minimum of two fire personnel staff the station at all times, and each personnel has emergency medical technician (EMT) training.

The NCCFD strives to meet the National Fire Protection Association (NFPA) 1710 guideline for fire department responses which allows firefighters one minute to don their turnouts once an emergency call for service is received from dispatch and four minutes of drive time.<sup>5</sup> A fire department is to meet this five-minute response standard 90 percent of the time. By maintaining this standard response time, the NCCFD can minimize deaths and injuries associated with fires; minimize the direct and indirect losses due to fires; and minimize deaths for people experiencing sudden illness, accidents, or injuries.

### **Ophir Hill Fire Protection District**

Ophir Hill FPD provides fire protection and emergency rescue service to an area east of Grass Valley which includes the community of Cedar Ridge. As shown in Figure 4.11-1, the entirety of the Brunswick Industrial Site, and roughly half of the Centennial Industrial Site, are located within Ophir Hill FPD. The District is bordered by Grass Valley on the west, NCCFD on the north and south, and Peardale-Chicago Park FPD on the east. Empire Mine State Park occupies a large portion of the District adjacent to the Grass Valley.

The District serves nearly nine square miles, with a population of approximately 3,700. The area is characterized by semi-rural/suburban low-density residential development. A handful of agricultural areas persist, along with some forested and converted mining territories. The District

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<sup>3</sup> Nevada City. *Report to City Council: Study Session on the Provision of Fire and Emergency Services, January 22, 2015.* Available at: <https://www.nevadacityca.gov/files/documents/January222015StaffReport1314075821091516PM.pdf>. Accessed January 7, 2021.

<sup>4</sup> Nevada County Consolidated Fire District. *Station 86.* Available at: <https://www.nccfire.com/station-86>. Accessed December 16, 2020.

<sup>5</sup> Nevada County Consolidated Fire District. *Nevada County Consolidated Fire District Strategic Plan 2016-2021.*



has a master mutual aid agreement with other fire agencies in the region, including state and federal agencies, and an automatic aid agreement with Peardale-Chicago Park FPD.

The District's fire Station 52 is located at 12668 State Route 174, south of the project site. Station 52 is staffed with two personnel 24 hours per day, seven days per week (24/7). The Station houses a Type 1 Fire Engine (structural fire apparatus) and second engine, both of which have 1,250-gallon pumps. The Station also houses a wildland fire engine.

While a response time goal has not been formally adopted, Ophir Hill FPD strives to meet the NFPA 1710 guideline for fire department responses of 5 minutes 90 percent of the time.

During fire season, the District's response policy is to dispatch three engines, one from Ophir Hill, one from Peardale-Chicago Park FPD, and one from the California Department of Forestry and Fire Protection (CAL FIRE).

### **Grass Valley/Nevada City Fire Department**

On November 10, 2020, the respective councils of the cities of Grass Valley and Nevada City passed resolutions to approve an agreement for fire protection services between the City of Nevada City and the City of Grass Valley.<sup>6</sup> Under the agreement, the NCFD fire personnel, other than the Fire Chief of Nevada City, shall become employees of and shall operate under the direction of the City of Grass Valley and the Grass Valley Fire Chief. Also under the agreement, Fire Station 54, located at 210 Providence Mine Road in Nevada City, will be leased to the City of Grass Valley for its use in fulfilling its obligations to provide fire protection and emergency medical services to Nevada City under the agreement.

Other fire stations operated by the GVFD include Station 1, located at 472 Brighton Street in downtown, which is staffed with a minimum of one company officer and one engineer or firefighter/operator 24/7. Station 2, located at 213 Sierra College Drive, is staffed with a minimum of a Captain, Engineer, and firefighter 24/7.

Additional equipment is placed at both stations that crews can utilize for calls for service, such as a 105-foot ladder truck at Station 2. As previously discussed, the GVFD is a part of the Nevada County JOA which is comprised of the NCCFD, and recently combined GV/NCFD. These agencies work and train together to provide high quality service to the community. Many of the engines within the JOA are outfitted with similar equipment to allow for a smooth interagency operation.

While a response time goal has not been formally adopted, the GV/NCFD strives to meet the NFPA 1710 guideline for fire department responses of 5 minutes 90 percent of the time.

### **California Department of Forestry and Fire Protection**

Wildland fire protection is provided either by the State (through CAL FIRE) or the Federal government (through the U.S. Forest Service). The State has direct protection responsibility for all state and private wildlands (or forest lands) in designated areas, and provides support and assistance to local jurisdictions in other areas of the state. CAL FIRE is responsible for wildland

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<sup>6</sup> For example, see *Nevada City Special City Council Meeting, Tuesday, November 10, 2020, Report to City Council*. Available at: <https://www.nevadacityca.gov/files/documents/CityCouncilPacket11-1020024910110620PM1315.pdf>. Accessed January 7, 2021.



fire response at the Centennial and Brunswick Industrial Sites. Local fire districts may also provide wildland fire protection, depending upon the event and circumstances.

With respect to the project site, the nearest CAL FIRE station is Station 20, located at 10242 Ridge Road, Nevada City. Station 20 is typically fully staffed, 24/7. A minimum of three fire personnel staff the Station at all times. During summer, the Station is equipped with two fire engines (Type 3, 500-gallon water tank), and one engine (Type 3) in the winter.

In addition to legal responsibility for wildland fires in state responsibility areas (SRA), where the project site is located, CAL FIRE has mutual and/or automatic aid agreements, and thus, may assist local fire agencies with structural fires and medical incidents under the closest resource concept.

CAL FIRE strives to meet the NFPA 1710 guideline for fire department responses of 5 minutes 90 percent of the time.

## Dispatch

In Nevada County, dispatch of emergency calls to 911 has been streamlined. All calls are initially routed to the Regional Dispatch Center (operated and staffed by the Nevada County Sheriff's Office), and dispatched as follows:<sup>7</sup>

### Landline Calls

The Regional Dispatch Center (RDC) at the Nevada County Sheriff's Office in Nevada City receives landline calls. Trained personnel at the RDC then route the calls as follows:

- **Law Enforcement** calls are routed to the applicable law enforcement agency officers on duty:
  - Grass Valley Police (for incidents in Grass Valley)
  - Nevada City Police (for incidents in Nevada City)
  - Town of Truckee Police (for incidents in the Town of Truckee)
  - Nevada County Sheriff (for incidents in the unincorporated area)
- **Fire & Medical** calls are routed to the Grass Valley Interagency Emergency Command Center (ECC), which then coordinates the response by tasking the responsible fire or medical agency. The ECC provides dispatch services for CAL FIRE Nevada-Yuba-Placer Unit's 12 fire stations, and also for 26 other fire departments, emergency medical services, and air ambulance helicopters:
  - CAL FIRE (incidents occurring on SRA lands)
  - U.S. Forest Service (incidents occurring on Federal Responsibility Area [FRA] lands)
  - Fire District or City as appropriate

### 911 Cell Calls

Depending on the location of the call, cell phone calls are routed either to California Highway Patrol (CHP) offices in Sacramento, or to the RDC in Nevada City. Calls routed to the RDC are then forwarded as described above.

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<sup>7</sup> Nevada County Local Agency Formation Commission. *Sphere of Influence Updates, Nevada County Service Providers*. January 16, 2014.



## **Law Enforcement**

The Nevada County Sheriff's Office provides law enforcement services to the unincorporated areas of Nevada County. The Sheriff's Office headquarters is located at the Eric W Rood Center in the Nevada County Government Center on Maidu Avenue in Nevada City. Administrative Offices for all services are located at the Rood Center, including: Patrol, Investigations, Animal Control, Evidence, Coroner, Public Administrator, Civil Process, and Dispatch are all represented at this location.

The Sheriff's Office currently has 68 sworn deputies. Calls for service over the last three years are as follows:<sup>8</sup>

- 9-1-1 calls;
  - 2018 – 29,576
  - 2019 – 31,129
  - 2020 – 32,509
- Calls for Service;
  - 2018 – 39,316
  - 2019 – 38,782
  - 2020 – 42,085
- Case numbers drawn;
  - 2018 – 6,022
  - 2019 – 5,646
  - 2020 – 5,889

9-1-1's are any emergency calls that come in. Many of these calls end up being Fire/Rescue calls that get routed up to the Grass Valley Emergency Command Center for Fire/Rescue dispatching and response.

Calls for service are where a deputy actually takes action on an event. The call has gone from a call into dispatch to a situation where a deputy needs to intervene. This could be a simple phone contact with someone for advice, ranging all the way up to a Code 3 emergency response for something that is occurring. Calls for service also include any self-initiated activity, such as business checks at night, vehicle and pedestrian stops, follow-up on previous investigations, etc.

Case numbers are where a deputy, or animal control officer, writes a report to document an incident. This can be everything from a simple information report all the way up to murder investigation.

The call volume can be handled by the current resources of the Sheriff's Office.<sup>9</sup>

## **Schools**

The Centennial and Brunswick Industrial Sites are within and near several primary education school districts, including Union Hill School District, Grass Valley School District, and Nevada City School District. High Schools are operated by the Nevada Joint Union High School District.

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<sup>8</sup> Personal communication between Lieutenant Robert Jakobs, Emergency Operations Coordinator, Office of Emergency Services, Nevada County Sheriff's Office, and Nick Pappani, Vice President, Raney Planning & Management, Inc., January 5, 2021.

<sup>9</sup> *Ibid.*



## Elementary and Middle School

Several schools are located within the Grass Valley School District. According to the Facilities Utilization Master Plan, Bell Hill Academy (K-4) has a practical capacity of 225 students; Grass Valley Charter School (K-8) has a practical capacity of 686 students; Margaret G. Scotten Elementary School (TK-4) has a practical capacity of 563 students; and Lyman Gilmore Middle School (5-8) has a practical capacity of 715 students.<sup>10</sup> Based on 2019-2020 Enrollment Numbers, Bell Hill Academy was at full capacity; Grass Valley Charter School had a remaining capacity of 164 students; Margaret G. Scotten Elementary School had a remaining capacity of 76 students; Lyman Gilmore Middle School had a remaining capacity of 160 students.<sup>11</sup>

Over the past twenty years, Nevada County has experienced a decline in K-8 enrollment, from 8,623 students in 1998/99 to 6,936 students in 2018/19, resulting in an overall decrease of 1,687 students or 19.56 percent.<sup>12</sup>

The Nevada City School District (TK-8) comprises all of Nevada City, as well as a considerable portion of unincorporated Nevada County in the eastern region of Nevada County including a number of other surrounding communities such as Willow Valley, Deer Creek Park, Blue Tent, and Cascade Shores.

Over the past twenty years, the District has experienced a decline in enrollment, from the peak of 1,533 students in 1999/00 to 756 students in 2019/20, resulting in an overall decrease of 49.31 percent. The Nevada City School District's enrollment has decreased more than twice the rate of the Nevada County K-8 enrollment. The District's enrollment is projected to decrease from the current 756 students to 577 students by the year 2029/30. A decrease of 179 students, or an average of 18 students per year over the next ten years.<sup>13</sup>

The Union Hill School District includes Union Hill Elementary (TK-6<sup>th</sup>) and Union Hill Middle School (7-8), generally located west of the project site at 11638 Colfax Highway. Prior to implementing a hybrid schedule due to COVID, the school site served around 580 elementary students and 120 middle school students.

## High School

Nevada Joint Union High School District operates the high schools within the vicinity of the project site. The high schools are located in Grass Valley and include Bear River High School, Ghidotti High School, Nevada Union High School, North Point Academy, NU Tech, and Silver Springs High School.

The two main high schools in the vicinity are Bear River High School, with an approximate capacity of 1,200, and Nevada Union High School, with an approximate capacity of 2,500.<sup>14</sup> Based on 2019/2020 enrollment data, Bear River High School had a remaining capacity of approximately 600 students, and Nevada Union High School had a remaining capacity of approximately 1,000 students.

<sup>10</sup> Williams & Associates. *Grass Valley School District Facilities Utilization Master Plan*. October 2017.

<sup>11</sup> Nevada County Superintendent of Schools. *2019-2020 Enrollment Summary – October 2019 (Updated 1/16/20)*. Available at: <https://nevco.org/wp-content/uploads/2020/06/Enrollment-10-2019-All-County.pdf>. Accessed January 21, 2021.

<sup>12</sup> Williams & Associates. *Nevada City School District Facilities Utilization Master Plan*. February 2020. IV-3.

<sup>13</sup> Williams & Associates. *Nevada City School District Facilities Utilization Master Plan*. February 2020. IV-6.

<sup>14</sup> Personal communication between Jordan Kohler, Director of Facilities and Construction, Nevada Joint Union High School District, and Nick Pappani, Vice President, Raney Planning & Management, Inc. January 21, 2021.



## **Parks**

The closest parks located within the vicinity of the project site include the following parks in the City of Grass Valley, each of which provides various amenities: Mulcahy Community or Mautino Park (12.9 acres), Condon Park (80 acres), Memorial Park (7.2 acres), Elizabeth Daniels Park (0.16-acre), Dow Alexander Park (0.25-acre), Glenn Jones Park (2 acres), and Minnie Park (2 acres).

State parks include Empire Mine State Park, near Grass Valley and generally south of the overall project site, Malakoff Diggins State Historical Park north of Nevada City, and the South Yuba River Recreation Area.

Various trails are located in the vicinity, within unincorporated portions of Nevada County, the closest of which is the Loma Rica Trail. The 1.5-mile Loma Rica Trail generally runs north-south along Brunswick Road, from Loma Rica Drive north to Bubbling Wells Road. The 2-mile Litton Trail is a well-established trail that meanders through an informal urban greenbelt in Grass Valley. The greenbelt is a blend of small forested sections, a country club, irrigation canal, community college, high school, and a retirement community. This trail connects local residents to businesses, places of work and education. The 2.3-mile Rattlesnake Trail runs along Rattlesnake Ridge Road, south of the project site, just beyond State Route 174. This is a public neighborhood trail without parking access.

A network of trails is also located within Empire Mine State Park, several of which are in close proximity to the project site, just south of East Bennett Road, including the Upper Union Hill Trail and Indian Ridge Trail.

## **Water**

The following section will discuss water supply and water conveyance infrastructure within the project vicinity. The water supply discussion will focus on surface water resources given that groundwater resources are discussed in detail in Chapter 4.8, Hydrology and Water Quality.

### **Water Supply**

The proposed project is anticipated to receive potable water from Nevada Irrigation District (NID) for dust control, sanitary uses, and to provide a reliable water supply to some nearby residences whose water supply wells could be impacted by mining operations. A Water Supply Assessment (WSA) was prepared by West Yost to evaluate the adequacy of NID's total projected water supplies, including existing water supplies and future planned water supplies, to meet the existing and projected future water demands, including those future water demands associated with the proposed project, under all hydrologic conditions (Normal Years, Single Dry Years, and Multiple Dry Years). The following section is based on the WSA, which is included as Appendix N of this EIR.

NID is located on the western slope of the Sierra Nevada mountain range. NID encompasses 287,000 acres and covers portions of three counties: Nevada, Placer, and Yuba. NID's watershed is located on the upper reaches of the Yuba River, Bear River, and Deer Creek.

Defined as "a special district operated by and for the people who own land within its 287,000-acre boundary", NID was established as an irrigation district in 1921. NID's retail potable water system consists of six service areas. The retail water system connections are predominantly single-family, but also consist of multi-family, commercial, industrial, and institutional customers.



### Existing Water Supplies

NID currently receives water from the following sources:

- Purchased water from PG&E that generally originates from the same watershed as the District water rights surface water supply.
- Surface water from the Yuba River, Bear River, and Deer Creek watersheds that is diverted and stored under the District’s pre-1914 and post-1914 appropriative water rights.
- Recycled water from Nevada City, Grass Valley, Auburn, and Placer County.

NID does not utilize groundwater as an existing or planned source of water due to limited groundwater availability. NID currently has a policy to not accept stormwater runoff into canals without the appropriate collection rights. Each of these existing supplies is described below. Table 4.11-1 shows NID’s historical use of these existing water supplies.

<b>Table 4.11-1 Existing (2020) Water Supplies (ac-ft/yr)</b>			
<b>Water Supply</b>	<b>Additional Detail on Water Supply</b>	<b>Actual Volume</b>	<b>Total Right or Safe Yield</b>
Purchased Water	-	0	54,361
Surface Water	Watershed Runoff	119,500	450,000
	Carryover Storage	169,100	
Recycled Water	-	1,408	As available
<b>Total</b>		<b>290,008</b>	<b>-</b>
<i>Source: Nevada Irrigation District 2020 Urban Water Management Plan, July 2021, Table 4-6.</i>			

#### *Purchased Water*

NID’s contracted purchase from PG&E is a surface water supply that generally originates from the same watershed as the District water rights surface water supply. The maximum amount available for District purchase is 54,361 acre-feet (ac-ft) with reductions in dry years based on the Sacramento Valley Index (SVI).

#### *Surface Water*

NID’s primary source of supply is local surface water derived principally from the Yuba River, Bear River, and Deer Creek watersheds that is diverted and stored under the District’s pre-1914 and post-1914 appropriative water rights. The water rights allow for a diversion of 450,000 ac-ft., although hydrology and runoff timing rarely allow for full collection of all water rights. NID has an extensive system of storage reservoirs that provides surface water supply to the District’s six water treatment plants, as well as to NID’s raw water customers.

The water rights surface water supply falls into two main categories: watershed runoff and carryover storage in surface reservoirs.

Watershed runoff is NID’s primary water supply. This category of supply includes water rights to runoff produced by NID’s watersheds during the water year. NID water rights include 25 pre-1914 rights acquired from mining interests, along with 28 post-1914 rights filed with the State of California to provide for domestic, municipal, industrial, recreational, power, and irrigation uses, and three riparian rights. These include rights for both consumptive and power purposes. The total water right volumes consist of storage rights, direct diversion rights, and some are a



combination of both. The total quantity estimated for diversion and/or storage under current consumptive water rights is approximately 450,000 ac-ft on an annual basis.

The amount of runoff and the way it is used depends upon the amount of water contained in the snowpack and the rate at which the snowpack melts. The most prominent and obvious cause for the fluctuation in natural runoff is the variability in hydrologic conditions, as seen in the wide variations in annual rainfall/snowpack accumulations. Over the last 30 years runoff has fluctuated from less than 77,378 ac-ft in dry years (2015) to over 467,000 ac-ft in wet years (1995). Average runoff from the Upper Division watershed, including the watershed area feeding Scotts Flat Reservoir, is approximately 221,500 ac-ft. Due to provisions in the PG&E Coordinated Operations Agreement, hydrologic variability, and the fact that the District is not the senior water right holder, no supplies are assumed to be available from the Bear River and South Yuba River. The historical runoff data evaluated to estimate the District's average runoff supply, therefore do not include supplies from the Bear River and the South Yuba River, and are based on runoff data from the water supply in the District watershed including Middle Yuba River, Canyon Creek, Texas Creek, Fall Creek and Deer Creek. The District is likely to receive some water from the Bear River and South Yuba River sources in dry years. Due to the uncertainty of the amount of supply available from these two sources and because the District is not the senior water rights holder, it has not been quantified.

The second largest component of NID's supply is carryover storage, which is the volume of water left in storage reservoirs at the end of the irrigation season, usually at the end of September. NID's main storage reservoirs can contain a maximum of 279,985 ac-ft of water. The two major distribution and storage systems within the District are the Deer Creek System and the Bear River System. These systems are a mixture of canals, siphons, pipelines, natural creeks, and other water conveyance structures.

### *Recycled Water*

Recycled water augments the District's overall water supply. The District uses recycled water exclusively for irrigation uses. Below is a description of the use of recycled water from each of the four wastewater treatment municipalities within the District service area:

- Nevada City: The District utilizes recycled wastewater effluent from the Nevada City sewage treatment plant for irrigation uses. The sewage effluent is diverted from Deer Creek and gets re-used as irrigation water.
- Grass Valley: The District utilizes recycled sewage effluent from the Grass Valley sewage treatment plant for irrigation uses. The sewage effluent is diverted from Wolf Creek and gets re-used as irrigation water.
- City of Auburn: The District utilizes recycled sewage effluent from the Auburn sewage treatment plant for irrigation uses. The sewage effluent is diverted from Auburn Ravine and gets re-used as irrigation water.

### Potable Water Reliability

Factors contributing to inconsistency in the District's water supplies include legal limitations due to water rights and contracts limiting the quantity of water available to the District, environmental constraints, and reductions in availability due to climatic factors. The surface water supply to the District is subject to reductions during single and multiple dry years (seasonal and climatic shortages). The District holds senior water rights to the majority of its supply, excluding the



watershed runoff supply, and has the ability to manage carryover storage quantities based on domestic, municipal and irrigation needs.

### Emergency Water Supply Conditions

NID adopted an updated Drought Plan (Water Shortage Contingency Plan) on November 18, 2015 to guide staff and customers to help minimize drought or water supply storage impacts. The Drought Plan identifies drought action levels, appropriate agency response, water demand reduction goals, and provides recommended demand management measures to assist customers in water conservation. The Drought Plan is reviewed every five years and updated, if necessary, with Board approval. The Drought Plan was updated and adopted along with the 2020 UWMP in July 2021.

NID maintains an Emergency Response Plan to address responding to catastrophic supply interruptions as well as other emergencies. The system is predominantly gravity fed but in situations where on-site generators are unavailable; the District currently has three portable generators that can be moved between different locations as needed. Nearly all drinking water facilities and critical raw water facilities are equipped with permanently installed backup generators. These backup generators increase the reliability of the District's supply.

### **Water Delivery Infrastructure**

NID potable treated water facilities, Elizabeth George and Loma Rica, are located in the vicinity of the Brunswick Industrial Site, where potable water would be required. The Elizabeth George and Loma Rica water treatment plants treated 2,757-acre feet and 1,939-acre feet of water in 2020.

An 18-inch treated water line owned by NID is located within Brunswick Road, along the project site's frontage. An existing NID 4-inch water meter services Brunswick parcel APN 06-441-03, where the office/warehouse would be located and where most of the water is needed.

In addition, an 8-inch water line traverses the approximate central portion of the Brunswick Industrial Site, near the proposed headframe building location. A small 5/8-inch NID meter is located along this water line.

Two existing fire service lines (6-inch and 8-inch) extend into the Brunswick Industrial Site from the 18-inch line in Brunswick Road.

### **Wastewater**

Public sanitary sewer systems in the western part of the County are provided by the cities of Grass Valley and Nevada City and the Nevada County Sanitation District No. 1. The Grass Valley and Nevada City sewage treatment plants were both constructed around 1950 and discharge into Deer Creek and Wolf Creek.

In areas outside the cities' service areas, the County of Nevada, through the Nevada County Sanitation District No. 1, operates and maintains the sewage collection and treatment facilities. There are 10 systems or zones within the Nevada County Sanitation District No. 1. These zones are Lake Wildwood, Lake of the Pines, North San Juan, Gold Creek, Penn Valley, Mountain Lakes Estates, Cascade Shores, Eden Ranch, Higgins Village, and Valley Oak Court.



The proposed project would not be served by a public sewer system. An on-site septic field system would be built at the Brunswick Industrial Site for the proposed permanent toilets, sinks, and shower facilities. The proposed septic system would be required to comply with the County's On-Site Wastewater Treatment Systems (OWTS) and Local Area Management Plan (LAMP).

### **Solid Waste**

Waste Management (WM) provides trash, green waste and recycling collection services throughout Nevada County. Trash from Western Nevada County is taken from the McCourtney Road Transfer Station. The Transfer Station is permitted to accept 350 tons per day (tpd) of residential and commercial solid waste, with a vehicle limit of 1,090 per day. The facility currently receives an average of approximately 198 tpd (based on 359 receiving days per year), with recent peak days as high as 390 tpd.<sup>15</sup>

As currently designed, the McCourtney Road Transfer Station does not have sufficient capacity to accommodate the volume of vehicles regularly delivering waste to the site, particularly on peak use periods throughout the spring, summer, and fall.<sup>16</sup> This capacity constraint is partly due to the site's compact size and limited queuing area. In addition, the amount of recyclable materials accepted at the Transfer Station has increased over the last several years due to the closure of most buy-back and drop-off facilities both locally and regionally. Nevada County has designed a project to resolve the existing issues, which is currently undergoing environmental review, and funding has been allocated in the County's Capital Improvement Plan.

From the Transfer Station, with the exception of recoverable materials, the solid waste is transported to the Lockwood Landfill outside of Reno, Nevada. The Lockwood Landfill, located in Sparks, Nevada, is a Class I Municipal Solid Waste Site that accepts municipal solid waste.<sup>17</sup> The capacity of the Landfill is 302.5 million cubic yards (CY) with a disposal area of 856.5 acres. The Lockwood Regional Landfill has a waste volume of approximately 32.8 million CY.<sup>18</sup>

Recovered materials are transported to other processing facilities within the region including the Sacramento Recycling and Transfer Station at 8491 Fruitridge Road in Sacramento.

### **Electricity and Gas Infrastructure**

The electrical grid system in the project area is well developed. The commercial sawmill on the Brunswick Industrial Site was previously serviced by a dedicated 12kV power line and a high voltage power line also runs through the property west of the Brunswick shaft.<sup>19</sup>

Natural gas infrastructure is not located at either of the project sites or in the immediate vicinity, nor is natural gas proposed for use at the project site.

<sup>15</sup> Douglas Environmental. *Initial Study/Mitigated Negative Declaration, McCourtney Road Transfer Station Renovation Project* [pg. 2-1]. December 10, 2020.

<sup>16</sup> *Ibid.*

<sup>17</sup> Personal communication between David Garcia, Nevada County Solid Waste Program Manager, and Nick Pappani, Vice President, Raney Planning and Management, Inc., January 22, 2021.

<sup>18</sup> Nevada Division of Environmental Protection. Lockwood Fact Sheet. Available at: <https://ndep.nv.gov/uploads/land-waste-solid-fac-docs/lockwood-fact-sheet.pdf>. Accessed January 22, 2021.

<sup>19</sup> AMEC Foster Wheeler. *Technical Report on the Idaho-Maryland Project, Grass Valley, CA* [pg.5-8]. June 1, 2017.



### **4.11.3 REGULATORY CONTEXT**

The following sections provide a summary of the federal, State, and local regulations pertaining to utilities and service systems with potential applicability to the proposed project.

#### **Federal Regulations**

The Safe Drinking Water Act, the principal federal law intended to ensure safe drinking water to the public, was enacted in 1974 and has been amended several times since it came into law. The Act authorizes the U.S. Environmental Protection Agency (EPA) to set national standards for drinking water, called the National Primary Drinking Water Regulations (NPDWR), to protect against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Water Resources Control Board (SWRCB) conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

#### **State Regulations**

The following are the State environmental laws and policies relevant to public services and utilities and service systems.

#### **Uniform Fire Code**

The Uniform Fire Code (California Code of Regulations [CCR], Title 24, Part 9) with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code (CFC) include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

#### **Proposition 1A/Senate Bill 50**

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure primarily for modernization and rehabilitation of older school facilities and construction of new school facilities. Proposition 1A/SB 50 implemented significant fee reforms by amending the laws governing developer fees and school mitigation. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[...] legislative or adjudicative act [...] involving [...] the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

#### **Assembly Bill 1881**

AB 1881, the Water Conservation in Landscaping Act of 2006 required the Department of Water Resources (DWR) to update the Model Efficient Landscape Ordinance. Furthermore, AB 1881 required local agencies to adopt the updated model ordinance or an equivalent ordinance by January 1, 2010. If local jurisdictions failed to adopt the updated model ordinance or an equivalent by January 1, 2010, the DWR's updated model ordinance would automatically be adopted by statute.



### **Senate Bill 610 and Senate Bill 221**

In 2001, the California Legislature enacted two pieces of legislation relevant to environmental review focused on the water consumption associated with large development projects. SB 610 (Chapter 643, Statutes of 2001; Section 21151.9 of the Public Resources Code (PRC) and Section 10910 et seq. of the Water Code) requires the preparation of WSAs for large developments. Government Code section 66473.7(a)(1) requires an affirmative written verification of sufficient water supply. SB 221 is designed as a “fail-safe” mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs early in the planning process.

Section 10912 of the California Water Code requires preparation of a WSA for several types of “Projects”, one of which is “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.” The project meets this criterion because the Brunswick Industrial Site exceeds 40 acres of land. Thus, a WSA is required to be prepared for the proposed project.

### **Urban Water Management Planning Act**

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 – 10656). The Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually shall prepare and adopt an Urban Water Management Plan (UWMP) within a year of becoming an urban water supplier and update the plan at least once every five years. The Act specifies the content that is to be included in an UWMP, and states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The Act also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the State and their water resources. NID prepared a UWMP in 2020.<sup>20</sup>

### **Assembly Bill 1327**

Assembly Bill (AB) 1327, the Solid Waste Reuse and Recycling Access Act of 1991 requires jurisdictions to adopt ordinances requiring development projects to provide adequate storage area for collection and removal of recyclable materials. Nevada County Land Use and Development Code (LUDC) Section L-II 4.2.13 requires use permit projects to include adequate, accessible, and convenient areas for the storage of solid waste and collection and loading of recyclable materials.

### **Senate Bill 1016**

Enacted in 2007, SB 1016 amended portions of the California Integrated Waste Management Act, allowing the California Integrated Waste Management Board (CIWMB) to use per capita disposal as an indicator in evaluating compliance with the requirements of AB 939. Jurisdictions track and report their per capita disposal rates to CalRecycle.

### **California Integrated Waste Management Act - Assembly Bill 939**

AB 939, the California Integrated Waste Management Act of 1989 contains requirements affecting solid waste disposal in California. According to AB 939, all cities and counties are required to divert

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<sup>20</sup> Nevada Irrigation District. 2020 Urban Water Management Plan. July 2021.



25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective county plan. The plans must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to \$10,000-per-day fines.

### **Local Regulations**

The following local goals and policies related to public services and utilities are applicable to the proposed project.

### **Nevada County General Plan**

The following applicable goals and policies related to public services and utilities are from the Nevada County General Plan.

### **Public Facilities and Services and Element**

Goal 3.1 Provide for public facilities and services commensurate with development type and intensity.

Policy 3.1 The levels of service and provision of public facilities in Community Regions shall be based upon improving the capacity of public facilities to serve higher levels of development directed to Community Regions. The levels of service and provision of public facilities in Rural Regions shall be based upon limiting the amount of development to ensure that adequate facilities are available. Planning for future public facilities and services in Community and Rural Regions shall be based upon the following criteria:

Community Regions:

- a. Public water and sewer
- b. Retention of existing emergency response times
- c. Intercommunity-transit

Rural Regions:

Rural Centers

- a. Public or on-site community water and sewer systems
- b. Decreased emergency response times

Rural Areas

- a. Individual septic and wells or on-site community water
- b. Decreased emergency response times
- c. Limited transit

Policy 3.2 The County shall encourage development within Community Regions where higher density development can more efficiently be provided with a full range of public facilities and services.



- Policy 3.3 The land use pattern reflected in the Nevada County General Plan Land Use Map is correlated with the future provision of public facilities to adequately serve said land uses based upon the service criteria and levels of service identified in Policy 3.1 and Policy 3.10. All General Plan amendments shall be required to show that the public facilities and services necessary to serve the proposed development are also correlated with the future provision of facilities and services according to the same criteria.
- Policy 3.4 To enable public services to be provided with the greatest degree of efficiency and cost-effectiveness, development within Community Regions shall be encouraged at the maximum density under the respective land use designations shown on the General Plan Land Use maps, consistent with environmental, infrastructure and other site constraints.
- Policy 3.6 The County shall prepare a long-range Capital Facilities Plan for all facilities to be included in the development impact fee program, as well as facilities to solve existing deficiencies, including a funding and phasing program for provision of facilities in not less than five-year increments.
- Policy 3.7 Based upon the long-range Capital Facilities Plan, the County shall prepare and adopt a Five-Year Capital Improvement Program (CIP) for facilities for which it is responsible, and shall encourage the other affected agencies to also adopt a Five-Year CIP for facilities for which they are responsible. In preparing the CIP, the County shall give priority to improvements which resolve or decrease an existing deficiency. To the maximum extent feasible, improvement projects shall support development of the following:
- a. employment generating uses
  - b. affordable housing
  - c. circulation/safety needs
- Policy 3.8 Based upon the adopted level of service standards, the County shall adopt a comprehensive development fee impact program meeting the requirements of AB 1600 and SB 327 in order to offset the costs of growth-related infrastructure and facilities based upon buildout of the General Plan.
- The County shall impose comprehensive development fees in amounts sufficient to offset the costs identified as the appropriate share of the public facility improvements necessary to serve future development. The comprehensive development fee structure shall ensure that future growth fully mitigates its direct and cumulative impacts upon the County.



Policy 3.10 The following specific level of service standards shall be applicable to Community Regions and Rural Regions for public facilities which the County has responsibility for providing:

**Overall County Services and Human Services**

- a. For Community and Rural Regions: 2,500 square feet for each increase of 1,000 persons in county-wide population

**County Jail**

- b. For Community and Rural Regions 1 inmate bed per 1,000 of the county-wide population

**County Library**

- c. For Community and Rural Regions: 300 square feet for each increase of 1,000 persons in county-wide population

**County Parks (Regional)**

- d. For Community and Rural Regions: 3.0 acres of land for each increase of 1,000 persons in county-wide population (Local parks to be provided by municipalities or local districts; Regional parks may be separate from local parks or an expansion of such facilities)

**County roads (other than local roads, as identified on the County Road Functional Classification Plan).**

Recognize existing LOS, including segment and intersection deficiencies, and at a minimum, maintain the following minimum LOS:

- e. For *Community Regions*  
Level of Service (LOS) "D", except where the existing LOS is less than "D". In those situations, do not let the LOS further decline.
- f. For *Rural Regions*  
Level of Service (LOS) "C", except where the existing LOS is less than "C". In those situations, do not let the LOS further decline.

These standards shall be used by the County as a basis for the long range Capital Facilities Plan

Policy 3.12 Encourage all other districts serving the County (including school, utility, cemetery, park, and fire districts) to develop and to regularly update a Master Service Plan based on realistic growth which specifies a district's policies and requirements for facilities based



upon buildout of the County's General Plan. The County shall review all proposed facility sites in the districts' Facilities Master Plans for consistency with the General Plan.

Policy 3.13 The County shall encourage all affected districts within the County to adopt an impact fee program to offset the costs identified as the appropriate share of the capital improvements necessary to serve future development.

Policy 3.14 In order to ensure that capacity of public facilities is coordinated with the timing of development the County shall require for any development requiring a discretionary permit, and for any General Plan amendment, a determination of the adequacy of public facilities, or an impact fee program, to serve the proposed development.

The adequacy of public facilities shall be determined upon the available capacity in existing facilities, plus the net additional capacity to support new development resulting from construction of the improvements in the Five-Year CIP of the County and other affected local agencies, the County 5-Year Road Improvement Program, and the State Transportation Improvement Program.

Additional capacity provided by such improvements to resolve existing deficiencies shall not be counted in the basis for determining capacity available to serve new development. Where adequate public facilities are planned, but not yet available to serve a proposed development, the County may require that mitigating measures be undertaken by the proponent of the development. Such measures shall not be in lieu of development impact fees; such measures may include, but are not limited to, alteration in the timing or phasing of the proposed development, construction of temporary improvements, or construction of off-site improvements necessary to serve that development.

Policy 3.15 The County shall encourage and may require, where appropriate and feasible, that mechanisms be provided as a condition of discretionary project approval to facilitate the funding of public improvements which are attributable to that project. Such mechanisms may include, but not be limited to, creation of an independent or dependent entity (independent district, dependent district, county service area, community service district).

Policy 3.20 The County will consider the creation of programs that will allow the use of "recapture" provisions to recover costs through subsequent connections for planned extension of infrastructure to new job generating land uses, and will encourage the use of such programs by other public or quasi-public agencies.

**See also: Policy 3.7**



- Policy 3.24 The County, in cooperation with other affected agencies, shall continue to implement the County Integrated Waste Management Plan. Preparation of a comprehensive long-range facilities plan for the County shall consider the need for transfer stations, composting sites, hazardous waste collection facilities, and other solid waste disposal facilities.
- Policy 3.25 It is recognized that for the immediate future, solid waste is being disposed of outside the County. However, this method of disposal may not be viable in the long term. Therefore, the County will develop a long-range plan for disposal of solid waste.

#### **4.11.4 IMPACTS AND MITIGATION MEASURES**

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to public services and utilities. In addition, a discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

#### **Standards of Significance**

##### **Public Services**

Consistent with Appendix G of the CEQA Guidelines, determination of significant impacts for public services is based on whether the proposed project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

##### **Utilities and Service Systems**

Consistent with Appendix G of the CEQA Guidelines, determination of significant impacts is based on whether the proposed project would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;



- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

Impacts related to storm drainage facilities are addressed in Chapter 4.8, Hydrology and Water Quality, of this EIR.

### **Method of Analysis**

The following section generally describes the methods used to evaluate the potential significance of the project's impacts on public services and utilities.

### **Public Services**

In order to obtain the most up-to-date information regarding public service providers who would serve the project, Raney contacted the providers to discuss their current resources and ability to serve the proposed project. Input from public service providers has been incorporated into the existing setting and impacts and mitigation measures section of this chapter.

### **Water Supply**

The water supply evaluation is based on a WSA prepared for the proposed project by West Yost, consistent with California Water Code sections 10910 through 10915, as established by SB 610.

The WSA primarily relies on NID's 2020 UMWP, which was adopted in July 2021, for water supply and demand projections. Supplemental information from other available reports has been included to provide the most recent data available and to meet the specific requirements of California Water Code sections 10910 through 10915.

Water Code section 10910 (c)(4) requires that a WSA include a discussion with regard to "whether 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." Accordingly, the Idaho-Maryland Mine WSA addresses these three hydrologic conditions through the year 2040.

### **Other Utilities**

The wastewater analysis is site-specific as the proposed project would not connect to any public wastewater system. Rather, an on-site sewage disposal system is proposed for the Brunswick Industrial Site, and no wastewater would be generated at the Centennial Industrial Site (portable toilets would be made available for on-site workers involved in engineered fill placement activities). The septic system evaluation involved eight soil test pits at the proposed location of the septic system, determination of the average percolation rate around the soil test pits, estimation of the amount of wastewater associated with the proposed project operations, and determination of the appropriate size and design for the septic system to adequately handle the proposed project's wastewater generation. The percolation tests were performed under the guidelines set forth in Nevada County Sewage Disposal Technical Regulations, and testing was conducted under the supervision of the Nevada County Environmental Health Department.

The solid waste analysis of this chapter is based on solid waste calculations performed using CalRecycle operational solid waste generation rates. The location and sizing of existing natural



gas and electricity infrastructure within the project area was based technical information provided by PG&E specifically for the proposed project.

### **Project-Specific Impacts and Mitigation Measures**

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance identified above.

#### **4.11-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. Based on the analysis below, the impact is *less than significant*.**

In accordance with CEQA Guidelines, this impact evaluation considers whether the project would increase demand for fire protection services such that a fire service provider would need to build new or expand existing facilities to maintain acceptable service ratios, response times, or other performance objectives, and if building such new or expanded facilities would result in environmental impacts. Wildfire hazards are discussed in Chapter 4.13, Wildfire.

#### **Centennial Industrial Site**

As previously discussed, the Centennial Industrial Site is located within both the NCCFD and the Ophir Hill FPD, whereas the Brunswick Industrial Site is located entirely within the Ophir Hill FPD.

The proposed project would not construct buildings on the Centennial Industrial Site. Rather, operations would be focused on hauling engineered fill from the Brunswick Industrial Site and placing the engineered fill within an approximate 44-acre portion of the Centennial Industrial Site. Thus, the demands that could be placed upon fire service providers as a result of Centennial operations would be limited to potential vegetation fires, which is addressed within the Wildfire Chapter of this EIR, and emergency medical incidents associated with on-site employees.

The nearest NCCFD station is Station 86, located at 12337 Banner Lava Cap, Nevada City. While response times to the Centennial Industrial Site from Station 86 would be greater than NCCFD's response time goal of five minutes 90 percent of the time, NCCFD has a JOA with GVFD and NCFD.<sup>21</sup> The JOA provides for the GVFD, NCFD and NCCFD to operate under a Boundary Drop/Closest resource response plan, under which the closest fire engine to an incident will be dispatched or multiple engines can be dispatched for larger incidents, regardless of jurisdiction. As previously discussed, the GVFD and NCFD have recently merged. Under the JOA, GVFD could respond to emergency medical incidents at the Centennial Industrial Site from Station 2 more quickly than NCCFD could respond from Station 86. According to the GVFD, it may

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<sup>21</sup> Personal communication between Terry McMahan, Fire Marshal, Nevada County Consolidated Fire District, and Nick Pappani, Vice President, Raney Planning & Management, Inc., December 17, 2020.



be possible for the Department to respond to emergency medical incidents at the Centennial Industrial Site within the Department's 5-minute response time goal 90 percent of the time, though this depends upon traffic conditions.<sup>22</sup> Given the JOA and the lack of proposed structures on the Centennial Industrial Site, thus precluding structural fires on-site, NCCFD does not believe that the proposed project would have a significant impact on its services and did not identify the need to expand or construct new facilities to serve the project.<sup>23</sup> In addition, it is noted that the proposed project will be subject to payment of NCCFD's fire impact fees.

### Brunswick Industrial Site

The Brunswick Industrial Site is located entirely within Ophir Hill FPD. Ophir Hill FPD's Fire Station 52 is located at 12668 State Route (SR) 174, south of the project site. Station 52 is staffed with two personnel, 24/7. The station houses a Type 1 Fire Engine (structural fire apparatus) and second engine, both of which have 1,250-gallon pumps. The station also houses a wildland fire engine. Ophir Hill FPD could respond to emergency incidents at the Brunswick (and Centennial) Industrial Site within its response time goal of 5 minutes 90 percent of the time.<sup>24</sup>

In the event of a structural fire at one of the taller on-site buildings, Ophir Hill FPD may need to access rooftop and/or upper portions of on-site buildings. Rise Grass Valley proposes to install two fire department roof access steel ladders on all buildings taller than 20 feet and less than 75 feet.<sup>25</sup> These ladders would be sufficient to reach all on-site buildings where the need for structural fire suppression would reasonably be expected, as shown in Table 4.11-2. The tallest on-site building, other than the headframe building would be the 64-foot tall Process Plant building.

Roof access to buildings may also be facilitated by use of GVFD's 105-foot ladder truck, if available. While the 105-foot ladder could not access the upper portions of the headframes, a ladder would be installed as part of the proposed project.

The potential for structural fires to occur within other on-site structures would be further minimized by the steel construction of all on-site buildings and proper storage and use of hazardous materials within the buildings, as required by federal and state regulations. In addition, all buildings will meet all fire code requirements as set forth by California Buildings Standards Code (CBSC) and CFC, which could include fire sprinklers and fire alarms, as determined by the County Fire Marshal at building permit stage, depending upon building and occupancy type.

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<sup>22</sup> Personal communication between Mark Buttron, Fire Chief, Grass Valley Fire Department, and Nick Pappani, Vice President, Raney Planning & Management, Inc., December 18, 2020.

<sup>23</sup> Personal communication between Terry McMahan, Fire Marshal, Nevada County Consolidated Fire District, and Nick Pappani, Vice President, Raney Planning & Management, Inc., December 17, 2020.

<sup>24</sup> Personal communication between Rob Rothenberger, Fire Chief, Ophir Hill Fire Protection District, and Nick Pappani, Vice President, Raney Planning & Management, Inc., January 6, 2021.

<sup>25</sup> Rise Grass Valley Inc. *Proposal to Ophir Hill Fire Protection District*. July 22, 2021.



<b>Table 4.11-2 Building Summary</b>		
<b>Building</b>	<b>Gross Area (square feet)</b>	<b>Maximum Height (feet)</b>
<b>Brunswick Shaft Complex</b>		
Headframe	2,600	165
Shaft building	1,700	25
Conveyor and raise building	700	17
Rock truck loading	1,700	20
Hoist building	2,800	50
Electrical building	800	15
Mine compressor building	1,600	20
<b>Process Plant Area</b>		
Process plant	29,200	64
Process plant addition	7,300	26
Generator building	3,900	20
<b>Warehouse/Office Area</b>		
Warehouse	28,900	27
Changeroom and office building	24,600	30
Water treatment plant	8,500	26
Machinery building	1,600	20
<b>Service Shaft Complex</b>		
Shaft building	2,700	24
Headframe (located in shaft building)	–	80
Hoist building	2,800	50
Electrical building	800	15
Machinery building	1,600	20
Security building	2,400	15

Notwithstanding, in the event of a structural fire at the Brunswick Industrial Site, pursuant to Ophir Hill FPD’s response policy, three engines would be dispatched, one from Ophir Hill FPD, one from Peardale-Chicago Park FPD, and one from CAL FIRE. Additional fire service providers may respond as necessary, as previously discussed. Ophir Hill FPD has expressed concerns regarding pumping capacity.<sup>26</sup> The Brunswick Industrial Site would include installation of a fire flow system that would connect to the 18-inch NID water main in Brunswick Road. Two existing fire service lines (6-inch and 8-inch) extend into the Brunswick Industrial Site from the 18-inch line on Brunswick Road. This fire flow infrastructure previously served the former Bohemia Lumber Mill on the Brunswick property. During final improvement plan review, the County Fire Marshal would review the fire flow system to ensure that it meets CFC requirements. In order to address the Ophir Hill FPD’s concern regarding pumping capacity, Rise Grass Valley has committed to providing a lump sum payment of \$1,000,000, at the commencement of mine dewatering, to the Ophir Hill FPD to be used exclusively for the purchase of a new fire engine and associated equipment.<sup>27</sup> Rise Grass Valley has also committed to funding three additional Ophir Hill FPD fire fighters during gold production. The Ophir Hill FPD Board has accepted Rise Grass Valley’s proposal and determined that with the provision of a new fully equipped Type 1 fire apparatus, as

<sup>26</sup> Personal communication between Robb Rothenberger, Fire Chief, Ophir Hill Fire Protection District, and Nick Pappani, Vice President, Raney Planning and Management, Inc., January 6, 2021.

<sup>27</sup> Rise Grass Valley Inc. *Proposal to Ophir Hill Fire Protection District*. July 22, 2021.



well as additional full-time staffing of three firefighters (and roof access ladders), Ophir Hill FPD would have the necessary equipment and staff to serve the project site.<sup>28</sup> The County would require the applicant to provide these commitments through project conditions of approval or other similar mechanism. Importantly, the new fire engine and additional personnel would be housed at the existing Ophir Hill fire station, and would not require expansion of the existing station or construction of a new station.

Underground fire incidents would be minimized given that all underground mining equipment would be electrically powered. Storage and use of underground explosives is heavily regulated by the U.S. Department of Labor Mine Safety and Health Administration (MSHA) under Title 30, CFR. Upon delivery to the project site, explosives and detonators would be immediately transported underground and placed in separate magazines pursuant to 29 CFR 1926.904, subdivision (b), and 8 CCR 5251, subdivision (a). The explosives and detonators would be moved and stored underground in auxiliary facilities - they would not be stored on the surface. The auxiliary facilities would be located in an area of the underground mine suitable for such storage use, and would consist of wooden, box-type containers equipped with covers or doors, or facilities constructed or mined-out to provide equivalent impact resistance and confinement so as to comply with 30 CFR 57.6161, subdivision (a). The auxiliary facilities will be located in such a way so as to ensure that escape routes are not obstructed, and will be located a safe distance from underground workings, tunneling and construction operations, shafts, electrical wiring, and combustible rubbish, as is required by 29 CFR 1926.904, 30 CFR 57.6161 and 8 CCR 5258. Blasting operations are controlled pursuant to the regulations in CFR 56.6300 to 56.6905., including but not limited to, primer protection, security of the blast site, post-blast examination for hazards, etc.

Explosives would be transported directly to the site by licensed explosive suppliers. The suppliers will possess the requisite permits, including a CHP hazardous materials transportation license and United States Department of Transportation (DOT) hazardous materials permits. Additionally, the explosives supplier will have a sufficient insurance policy.

The suppliers would transport explosives to the project site via semi-trucks driven by licensed drivers on Brunswick Road via SR 20/49. The semi-trucks will also be conspicuously labeled, as is required by 29 CFR 1926.902, subdivisions (f) through (i). The suppliers will take all proper federally mandated precautions while transporting explosives, including driving on designated explosive routes and will inspect tires at the beginning of each trip and each time the vehicle stops. (49 CFR 397.17.) In addition, in compliance with federal regulations, the explosives and detonators will be separated during the transportation thereof to ensure the explosives are not detonated. (29 CFR 1926.902, subd. (d).)

### *Emergency Medical Incidents*

With respect to emergency medical incidents and underground mine rescue, if deemed necessary, demands for emergency response by Ophir Hill FPD or other providers would be minimized by the mine's own rescue team, which would total 24 members and include five EMTs. An EMT would always be on-site to provide rapid

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<sup>28</sup> Robb Rothenberger, Fire Chief. Ophir Hill Fire Protection District. Letter dated August 2, 2021.



response to any medical emergencies and a permanent member of the mine rescue team. Each of the four mine rescue teams would be on call to respond to emergencies. Pursuant to MSHA, a minimum of two teams is required to be available within a one-hour travel time to respond to the mine site.

The mine rescue teams would be fully trained and equipped with personal protective equipment, closed circuit rebreather apparatus for underground, open circuit self-contained breathing apparatus for surface responses, oxygen and equipment supplies, gas testing equipment, thermal imaging cameras, communication devices, fire fighting vehicles, hand tools, pumps, hoses, and other equipment. All equipment would be kept at the Brunswick Industrial Site and would not require expansion or new emergency response facilities.

The on-site EMT would be available to transport personnel to the nearest hospital if medical care is non-urgent, thus, relieving demands upon ambulance services (i.e., Sierra Nevada Ambulance). However, certain medical incidents require 9-1-1 dispatch of an ambulance for transport to the appropriate care facility. The total employees on-site at any given time would be 111, which would not be anticipated to generate a substantial amount of emergency calls for service over the course of a typical workday.

In addition, underground metal mining has injury rates similar to residential construction and injury rates are significantly less than agriculture, truck transportation, and logging. The non-fatal lost time injury rate for underground metal mining of approximately 1.5 injuries per year per 100 workers is similar to that experienced in the residential construction industry.<sup>29, 30</sup> From the period of 2016 to present, only two fatal injuries have occurred in all the underground metal mines combined in the United States (both in 2018).<sup>31,32</sup>

### Reclamation

During reclamation of the Brunswick Industrial Site, underground mining would cease and the Brunswick Shaft and Service Shaft would be closed pursuant to applicable state and federal regulations for safety and security purposes. The tallest structures on-site -- Brunswick Shaft and Service Shaft headframes and headframe buildings -- would be removed, along with the covered conveyor system and above-ground diesel fuel tanks. Paved surfaces and the remaining on-site building shells would remain, but internal contents would be removed. These reclamation activities would further minimize potential demand for fire service provider calls for service at the Brunswick Industrial Site.

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<sup>29</sup> U.S. Bureau of Labor Statistics. *2018 Non-fatal occupational injury rate by industry*. Available at: [www.bls.gov/web/osh/summ1\\_00.htm](http://www.bls.gov/web/osh/summ1_00.htm). Accessed December 2021.

<sup>30</sup> United States Department of Labor – Mine Safety and Health Administration. *2018 Mine Injury and Worktime Quarterly Report*. Available at: <https://arlweb.msha.gov/Stats/Part50/WQ/2018/MIWQ%20Report%20CY%202018.pdf>. Accessed December 2021.

<sup>31</sup> United States Department of Labor – Mine Safety and Health Administration. *Fatality #16 – November 11, 2018 – Final Report*. Available at: [www.msha.gov/data-reports/fatality-reports/2018/fatality-16-november-11-2018/final-report](http://www.msha.gov/data-reports/fatality-reports/2018/fatality-16-november-11-2018/final-report). Accessed December 2021.

<sup>32</sup> United States Department of Labor – Mine Safety and Health Administration. *Fatality #14 – October 25, 2018 – Final Report*. Available at: [www.msha.gov/data-reports/fatality-reports/2018/fatality-14-october-25-2018/final-report](http://www.msha.gov/data-reports/fatality-reports/2018/fatality-14-october-25-2018/final-report). Accessed December 2021.



### Conclusion

CEQA analysis of a project's impacts upon fire service providers should be focused on physical environmental impacts. In other words, the analysis should focus on whether the project necessitates a fire service provider to construct a new facility or expand an existing facility, the construction of which could cause physical impacts to the environment, in order for the provider to meet its response time goals or other performance objectives. The above analysis demonstrates that the proposed project would create additional demand upon fire service providers. However, new or physically altered fire stations are not needed for service providers to meet response time goals for medical or fire-related incidents at the Sites.

Based on the above, the proposed project would not require the construction of new or expanded emergency medical and fire response facilities and would therefore have a ***less-than-significant*** impact related to adverse physical impacts associated with the provision of new or physically altered fire facilities.

### Mitigation Measure(s)

*None required.*

#### **4.11-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services. Based on the analysis below, the impact is *less than significant*.**

The Nevada County's Sheriff's Office would provide law enforcement services for the proposed project. The Sheriff's Office headquarters is located at the Eric W Rood Center in the Nevada County Government Center on Maidu Avenue in Nevada City. Response times to calls for service oftentimes depends upon the location of the responding deputy within their patrol beat, as they are the first to respond to any emergency in the County. However, it is important to note that the Sheriff's Office does not have adopted response time goals.

The proposed operations at the Centennial Industrial Site would place limited demand on the Sheriff's Office as operations would be limited to the placement of engineered fill for a finite period of time (i.e., approximately five years until the engineered fill pad is completed to its design height). No above-ground structures or underground mining operations would occur at the Centennial Industrial Site, which could be subject to crimes such as break-ins and theft.

In contrast, the Brunswick Industrial Site would include several new above-ground buildings and commencement of underground mining. Valuable mineral resources would be extracted from underground and processed on-site for off-site shipment. In order to deter potential crime at the Brunswick Industrial Site, the property would be fenced and gated. A security officer would always be on-site to ensure controlled



access to the mine. A total of four security officers would be employed at the mine, with an emphasis on local recruitment.

In addition, while lighting at the Brunswick Industrial Site has been designed to minimize light spill over onto adjacent properties, as discussed in the Aesthetics chapter of this EIR, new light structures are proposed throughout the Brunswick Industrial Site at strategic locations for pedestrian safety along internal walkways and around equipment areas, and to enhance the security of the property. Outdoor lights would be provided at project entry points, within the surface parking lot, and around the Brunswick Shaft and Process Plant and proximate buildings.

Similar to fire protection services, the law enforcement impact analysis should be appropriately focused on determining whether the proposed project's demand upon the Sheriff's Office would generate the need to expand existing law enforcement facilities or provide new facilities, such as a new Sheriff's Office substation.

As previously discussed, the Sheriff's Office currently has 68 sworn deputies and the ability to handle the call volume with current resources of the Sheriff's Office. Based upon the project description details, including the number of employees (111 maximum employees per shift), the Sheriff's Office services would not be adversely affected by the proposed project, and the headquarters would not require expansion to enable the Sheriff's Office to adequately serve the proposed project in addition to current demands.<sup>33</sup>

During reclamation of the Brunswick Industrial Site, the Brunswick Shaft and Service Shaft would be closed pursuant to applicable state and federal regulations for safety and security purposes. The Brunswick and Service shafts headframes and headframe buildings would be removed, along with the covered conveyor system and above-ground diesel fuel tanks. Remaining on-site building shells would remain but internal contents would be removed. The site security fencing and lighting would remain, such that the Brunswick Industrial Site could continue to be appropriately secured.

Based on the above, the proposed project would have a **less-than-significant** impact related to resulting in substantial adverse physical impacts associated with the provision of new or physically altered fire facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services.

#### Mitigation Measure(s)

*None required.*

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<sup>33</sup> Personal communication between Lieutenant Robert Jakobs, Emergency Operations Coordinator, Office of Emergency Services, Nevada County Sheriff's Office, and Nick Pappani, Vice President, Raney Planning & Management, Inc., January 5, 2021.



**4.11-3 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or performance objectives for schools. Based on the analysis below, the impact is *less than significant*.**

Demand upon local schools as it relates to new development projects is typically a result of new residential communities, where families move to an area and add students to the school District, within whose boundaries they are located. To a lesser degree, demand for schools may be attributable to non-residential projects that increase employment opportunities and result in families relocating to the area for employment opportunities.

The proposed project would support a total of 312 employees. Rise has established local recruitment targets that they intend to achieve through the implementation of a training program. A total of 162 positions have been designated for trainees with no previous experience. Rise estimates that approximately 51 additional workers, with previous experience and training in mining, engineering, electrical or other trades, are available for local area recruitment. Therefore, at least 213 workers (approximately 68 percent of the mine's workforce) are estimated to be sourced from the immediate Nevada County area. It is anticipated that approximately 99 workers (32 percent of workforce) would be recruited from outside the local area; these positions require extensive experience in underground mining which are less likely to be possessed by persons currently residing in the immediate local area.

Considering that the average metal miner is 41.5 years of age, it is reasonable to assume that many employees would have families.<sup>34</sup> Conservatively assuming that each of the 99 workers recruited from outside the local area would have a family, the total new population introduced to the local Nevada County area from these 99 workers would be approximately 240 people.<sup>35</sup> Even if one student per household, or 99 total students, were assumed, the primary and secondary school districts serving this portion of the County would have sufficient capacity to accommodate the additional students.

For example, based on 2019-2020 Enrollment Numbers, while Bell Hill Academy was at full capacity, Grass Valley Charter School had a remaining capacity of 164 students; Margaret G. Scotten Elementary School had a remaining capacity of 76 students; and Lyman Gilmore Middle School had a remaining capacity of 160 students.<sup>36</sup> Union Hill Elementary and Middle School serves around 700 students, though like many other

<sup>34</sup> National Institute for Occupational Safety and Health. *National Survey of the Mining Population, Part I: Employees* [pg.75]. 2012. Available at: <https://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/2012-152.pdf>. Accessed January 26, 2021.

<sup>35</sup> Assuming 2.42 persons per household, consistent with the Nevada County 2019-2027 Housing Element, pg. 8-23.

<sup>36</sup> Nevada County Superintendent of Schools. *2019-2020 Enrollment Summary – October 2019 (Updated 1/16/20)*. Available at: <https://nevco.org/wp-content/uploads/2020/06/Enrollment-10-2019-All-County.pdf>. Accessed January 21, 2021.



schools, has recently implemented a hybrid schedule, thus reducing on campus attendance. In addition, over the past 20 years, Nevada County has experienced a decline in K-8 enrollment, from 8,623 students in 1998/99 to 6,936 students in 2018/19, resulting in an overall decrease of 1,687 students or 19.56 percent.<sup>37</sup> The Nevada City School District's enrollment has decreased more than twice the rate of the Nevada County K-8 enrollment over the past 20 years. In addition, the District's enrollment is projected to decrease from the current 756 students to 577 students by the year 2029/30 – a decrease of 179 students, or an average of 18 students per year over the next ten years.<sup>38</sup>

With respect to high school, based on 2019/2020 enrollment data, Bear River High School had a remaining capacity of approximately 600 students, and Nevada Union High School had a remaining capacity of approximately 1,000 students. As such, no expansion of local school facilities is expected to be necessary as a result of additional students that could move to the project area due to development of the project.

Given existing capacity at area schools, the project would not increase enrollment such that it would create a need for new or expanded school facilities. Based upon the above, the proposed project would have a **less-than-significant** impact with respect to resulting in substantial adverse physical impacts associated with the provision of new or physically altered school facilities.

Mitigation Measure(s)

*None required.*

**4.11-4 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks services. Based on the analysis below, the impact is *less than significant*.**

Nevada County General Plan Policy 3.10 identifies a specific level of service standard for County regional parks (3.0 acres for each increase of 1,000 persons). The County has adopted a Recreation Mitigation Impact Fee for residential development to address this level of service standard, and distributes those fees to park and recreation districts, the cities, school districts, and non-profit organizations to enhance recreational opportunities at new and existing recreational facilities within the boundaries of four benefit zones in Western Nevada County. Recreation Impact Fees are not collected for non-residential uses, such as the proposed mining operation. This is consistent with industry practice given the limited demand that non-residential projects place on park and recreation services. Large employers could indirectly increase an area's population due to substantial new employment opportunities, which could in turn indirectly increase demand on local parks and recreation facilities.

<sup>37</sup> Williams & Associates. *Nevada City School District Facilities Utilization Master Plan*. February 2020. IV-3.

<sup>38</sup> Williams & Associates. *Nevada City School District Facilities Utilization Master Plan*. February 2020. IV-6.



The proposed project is anticipated to bring 99 specialized workers to the local area, along with their families. This would not result in the need for new park facilities or expansion of existing park facilities. Sufficient state and local park facilities existing within the area, such as Empire Mine State Park, Malakoff Diggins State Historical Park, several parks within Grass Valley, and trail opportunities such as the 1.5-mile Loma Rica Trail along Brunswick Road in the project vicinity and the network of trails within Empire Mine State Park.

Thus, the proposed project would not require the expansion or construction of new parks and would therefore have a **less-than-significant** impact with respect to resulting in substantial adverse physical impacts associated with the provision of new or physically altered park facilities.

Mitigation Measure(s)

*None required.*

**4.11-5 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public services. Based on the analysis below, the impact is *less than significant*.**

Nevada County General Plan Policy 3.10 identifies specific level of service standards for other public facilities in the County, including County jail, County library, and County parks (discussed in Impact 4.11-4). As discussed above, the proposed project may reasonably be expected to relocate approximately 240 employees to the local area. This relatively minor increase would not require new County facilities, or expansion of existing facilities, the construction of which could cause significant environmental impacts. For example, using the service standards of Policy 3.10, the proposed project could require an additional 0.24 inmate bed at the County jail, and 72 additional square feet of library space.

According to the 2019-2020 Nevada County Executive Report,<sup>39</sup> a voter-approved sales tax measure (Measure A) in 2016 provides a one-fourth cent sales tax to fund County libraries. The tax has a 15-year term and is the primary funding source of the Nevada County Library. This revenue and community involvement helps support the robust library programs available in the County. Of the six comparison counties, Nevada County has the highest book circulation per capita (7.42) and the third highest operating expenditure per capita (\$30.36) behind Placer and Mendocino counties. The sales tax, known as the Nevada County Public Library Transactions and Use Tax Article of the County of Nevada, imposed a tax on all retailers in the incorporated and unincorporated territory of the County at the rate of one-quarter of one percent (0.25

<sup>39</sup> Nevada County Executive Office. 2019-2020 Nevada County, California Executive Report. Available at <https://www.mynevadacounty.com/DocumentCenter/View/29532/1920-Executive-Report>. Accessed January 26, 2021.



percent) of the gross receipts of any retailer from the sale of tangible personal property sold at retail in the territory.<sup>40</sup>

With an estimated total payroll, including wages and benefits, at \$38 million per year, retail expenditures associated with mine employees would make a meaningful contribution to the Library sales tax.

Policy 3.10 also includes a service standard for overall County Services and Human Services, at 2,500 square feet for each increase of 1,000 persons. At an estimated 240 new residents resulting from the project, this equates to approximately 600 square feet of additional space for unspecified overall County services and human services. These services are funded by various revenues streams, including but not limited to federal and state monies, property and sales taxes, charges for services, etc. The project's contributions towards these revenue streams would reasonably be expected to offset the potential demand for an estimated need of 600 square feet of additional space for these types of services.

The project would not require the construction of new or expanded public facilities; therefore, the proposed project would have a **less-than-significant** impact with respect to adverse physical impacts associated with other public facilities.

Mitigation Measure(s)

*None required.*

**4.11-6 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Based on the analysis below, the impact is less than significant.**

The following sections describe the water, wastewater treatment, and electric power improvements that would be necessary to serve the proposed project. Storm water drainage facilities are addressed in Impact 4.8-3 of the Hydrology and Water Quality chapter.

Water Supply Infrastructure

Several NID potable treated water facilities are located in the vicinity of the Brunswick Industrial Site, where potable water would be required. An 18-inch treated water line owned by NID is located within Brunswick Road, along the project site's frontage. An existing NID 4-inch water meter services Brunswick parcel APN 06-441-03, where the office/warehouse would be located and where most of the water is needed. Two existing fire service lines (6-inch and 8-inch) extend into the Brunswick Industrial Site from the 18-inch line on Brunswick Road and would be used for the on-site fire system.

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<sup>40</sup> Board of Supervisors of the County of Nevada. *Resolution No. 16-333*. June 30, 2016. Available at <https://www.mynevadacounty.com/DocumentCenter/View/13267/Measure-A-PDF>. Accessed January 26, 2021.



Thus, NID potable water line and meter infrastructure is located at the Brunswick Industrial Site such that connections to existing infrastructure could be conveniently made and off-site water line improvements, such as pipe relocation or new construction, would not be required for the proposed Brunswick Industrial Site operations.

As discussed in Impact 4.8-2 of the Hydrology and Water Quality chapter of this EIR, dewatering associated with the proposed mining operations could result in potential adverse effects to an estimated seven domestic water supply wells in the East Bennett area during the life of the mining operation. As discussed in the Project Description chapter, pursuant to Nevada County General Plan Policy 17.12, the project would address the potential effects on the estimated seven domestic water supply wells by installing an 8-inch potable water supply line in East Bennett Road, as generally shown in Figure 4.11-2, and providing individual well owners with a connection to the potable water line. While only seven wells are projected to be adversely affected, the applicant has prepared, and Mitigation Measure 4.8-2(c) of the Draft EIR requires implementation of, a Well Mitigation Plan that would provide the ability to connect up to 30 properties in the East Bennett area to the NID potable water system. However, connection to the proposed NID pipeline would be voluntary. The properties would be connected to the potable water system prior to commencement of initial mine dewatering, if the property owner chooses to do so.

In accordance with the Well Mitigation Plan, the applicant will fund the engineering, permitting, construction, and installation of main water piping and water meters to each property, as well as NID water charges for ongoing water supply.

An approximately 1¼-mile-long by two feet-wide (approximately 0.30-acre) stretch of East Bennett Road would be temporarily disturbed to bury the potable water pipeline. Installation of the buried potable water pipeline would generally involve trenching, pipe placement, backfill, and cover replacement. Initially, an approximately 24-inch-wide by 42-inch-deep open trench would be excavated. Asphalt would be disposed of consistent with County regulations and overburden would be stockpiled for use as backfill. Upon completion of trenching in a specific section of the route, the eight-inch pipeline would be installed. The pipe would be covered with the stockpiled soil removed during trenching or engineered fill, as required by County guidelines. The backfilled trench within the East Bennett Road right-of-way would then be paved consistent with County guidelines.

The potential physical environmental effects associated with off-site potable water line construction within East Bennett Road are evaluated throughout the remaining technical chapters of this EIR, including, but not limited to, Air Quality (Chapter 4.3), Biological Resources (Chapter 4.4), Cultural Resources (Chapter 4.6), and Hydrology and Water Quality (Chapter 4.8).



**Figure 4.11-2  
East Bennett Road Potable Water Line Alignment**



Source: Nevada City Engineering, Inc.



### **Wastewater Collection**

The proposed project would not be served by any public sewer systems, but rather sanitary sewage from the project would be discharged to an on-site sewage disposal system. An on-site septic field system would be built at the Brunswick Industrial Site for the permanent toilets, sinks, and shower facilities planned. The proposed septic system would be required to comply with the County's On-Site Wastewater Treatment Systems (OWTS) and Local Area Management Plan (LAMP). In compliance with the OWTS and LAMP, a septic system permit would be required from the County in order to construct and operate the proposed septic system.

A septic system evaluation was prepared for the proposed project by Navo & Sons, Inc. (refer to Impact 4.6-4 of the Geology, Soils, and Mineral Resources chapter of this EIR for further discussion of the soils evaluation). According to the septic system evaluation, a relatively large, acceptably permeable soil area has been identified within the proposed leach field area, just south of the proposed engineered fill footprint, and set back 100 feet from the property line. The evaluation concludes that the project site is suited for a Pressure Dose sewage disposal system with a minimum of 1,935 lineal feet of leach line. A minimum 10,000-gallon septic pump tank with watertight risers over each lid and outlet effluent filter would be required. The pump tank would be oversized in order to accommodate for potential power loss, backups, and surge flows in the future. The potential environmental impacts associated with the septic field disturbance area have been addressed within the remaining technical chapters of this EIR.

### **Electricity and Other**

The electrical grid system in the project area is well developed. A commercial sawmill that previously operated on the Brunswick Industrial Site was serviced by a dedicated 12kV PG&E power line. A high voltage power line also runs through the property west of the Brunswick shaft.<sup>41</sup> Electricity for the proposed project would be supplied by the existing 12 kV PG&E line along Brunswick Road. The BRUNSWICK 1102 Circuit (Circuit), which would serve the proposed project, has a rating of 13.26 MW.<sup>42</sup>

The project's total connected load is estimated at approximately 10 MW, with a net load of approximately 6 MW. As of the year 2021, the Circuit operates at 5.15 MW, or approximately 39 percent of the Circuit's maximum capacity. Based on PG&E's usage projections, the Circuit load is anticipated to drop to approximately 4.74 MW by the year 2025.<sup>43</sup> Considering the proposed project would generate an electric load of approximately 6 MW, and the Circuit currently provides 5.15 MW, the Circuit capacity would increase to 11.15 MW following implementation of the proposed project. The increase in wattage associated with implementation of the proposed project would remain within the Circuit's capacity of 13.26 MW and, thus, the Circuit would have available load capacity to accommodate the project.

<sup>41</sup> AMEC Foster Wheeler. *Technical Report on the Idaho-Maryland Project, Grass Valley, CA* [pg.5-8]. June 1, 2017.

<sup>42</sup> Pacific Gas & Electric. *Distribution Investment Deferral Framework (DIDF) Map*. Available at: <https://www.pge.com/b2b/distribution-resource-planning/grid-needs-assessment-map.html>. Accessed December 2021.

<sup>43</sup> *Ibid.*



PG&E provided a will serve letter for the project, PG&E has confirmed that there are electric facilities available to serve the proposed project in accordance with all applicable design standards, rules, and tariffs on file with the State of California Public Utilities Commission.<sup>44</sup>

PG&E's BRUNSWICK 1102 Circuit, from which the Brunswick Industrial Site operations would be served, has been subject to recent (October 2019) Public Safety Power Shutoffs (PSPS) due to wildfires.<sup>45</sup> In order to address any potential PSPS events or other service interruptions, the project includes backup power generation in the form of four diesel generators on the Brunswick Industrial Site, with a capacity to provide approximately 6 MW on a continuous basis. The emissions associated with the generators has been evaluated in the Air Quality, Greenhouse Gas Emissions, and Energy chapter of this EIR.

Gas infrastructure is not located on-site or in the immediate vicinity, nor is gas proposed for use at the project site.

### Conclusion

Based on the above, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or electric power facilities, the construction or relocation of which could cause significant environmental effects. Thus, a ***less-than-significant*** impact would occur.

### Mitigation Measure(s)

*None required.*

## **4.11-7 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Based on the analysis below, the impact is *less than significant*.**

### Project Water Demand

The proposed project would require use of both potable and non-potable water. Each source is discussed separately below.

#### *Potable Water Demand*

An average of approximately 5,700 gallons per day (gpd) of potable water would be purchased from NID for sinks, toilets, and showers installed in buildings at the Brunswick Industrial Site. The proposed project would also require potable water from NID for the proposed potable water pipeline in East Bennett Road. The proposed potable water pipeline along East Bennett Road would be constructed from the District's Grass Valley potable water system and would provide water service to those residences whose existing groundwater wells may be impacted by mine groundwater

<sup>44</sup> Pacific Gas & Electric. *Idaho-Maryland Project (APN: 09-630-37, 09-630-39, 06-441-03, 06-441-04, 06-441-05, 06-441-034, Application Number: 117751473*. November 5, 2019.

<sup>45</sup> Pacific Gas & Electric. *Amended PG&E Public Safety Power Shutoff (PSPS) Report to the CPUC, October 26 & 29, 2019 De-Energization Event*. Available at: [https://www.pge.com/pge\\_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-10.26.19-amend.pdf](https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/PSPS-Report-Letter-10.26.19-amend.pdf). Accessed January 28, 2021.



dewatering operations. However, connection to the proposed NID pipeline would be voluntary. Although it is not known yet how many residences would connect to the NID potable water supply, it is estimated that up to 30 properties are located along the proposed pipeline alignment (including cul-de-sacs) and could connect. Potable water supply needed for residential use along the proposed pipeline alignment is projected to be approximately 17,900 gpd based on a unit water demand of 0.4 gallons per minute (gpm)/dwelling unit. The 0.4 gpm/dwelling unit water use factor was provided by the District.<sup>46</sup>

Water needed for compaction and dust suppression during activity at the Centennial Industrial Site would also be purchased from NID. Approximately 42,000 gpd of water may be required for dust suppression and compaction over the five-year period of engineered fill placement. Compacting 8 hours per day and 5 days per week requires water service of up to 125 gallons per minute (gpm). Water needed for compaction and dust suppression during activity at the Brunswick Industrial Site would be sourced from dewatered groundwater treated at the on-site WTP, except for a period of approximately nine months prior to the construction of the WTP during which the water would be purchased from NID. Approximately 42,000 gpd may be required for dust suppression and compaction over the six-year period of engineered fill placement. Purchase of water from NID for compaction and dust suppression for the Brunswick Industrial Site (prior to WTP construction) would not overlap temporally with purchase of water from NID at the Centennial Industrial Site for engineered fill placement, as the WTP will have been constructed before engineered fill is placed on the Centennial Industrial Site.

The proposed development area at the Brunswick Industrial Site would be either paved, left in natural forest state, or landscaped. The landscaped area may require some minor irrigation which would use treated mine water, not potable water.

The engineered fill piles would not be paved as part of this project and the final surface would be compacted crushed rock, which would not require dust control watering once construction is complete. The side slopes of the pile would be covered with grass, which should not require irrigation.

Because the WSA prepared for the proposed project assesses the ongoing water demand associated with buildout of the proposed project, the water demand during temporary operations is not included in buildout water demands.

### *Non-Potable Water Demand*

Groundwater consumed during operations is estimated to be 84,000 gpd. Water consumption includes water vapor in ventilation, air, cemented paste backfill, and concentrates and engineered fill. The following list provides a description of project elements consuming groundwater:

- **Underground Mining Service Water:** Such uses include water use for dust suppression in rock drills and blasted rock piles, which is piped into the mine workings. Net consumption of water would not result from such activities, because water in underground workings is pumped to the surface for reuse.

<sup>46</sup> West Yost. *Idaho-Maryland Mine Water Supply Assessment* [pg. 9]. December 1, 2021.



- Water Vapor in Ventilation: Ventilation air flow through the mine working would become saturated with water vapor, consuming approximately 40,000 gpd (assuming 200,000 CFM airflow, 100 percent saturation of air at 68 degrees F).
- Cemented Paste Backfill: Water is needed to transport and bind the cemented paste backfill underground. Such water is permanently retained in the backfill or used in the hydration of cement. Backfilling would consume approximately 20,000 gpd, assuming a 15 percent water content by mass and 500 tons per day of backfill placed.
- Gold Concentrates and Engineered Fill: Concentrates and engineered fill shipped off-site would contain approximately 24,000 gpd of water.
- Dust Control and Compaction: Active fill areas and unpaved surfaces require water to control fugitive dust, and engineered fill placed at the Brunswick Industrial Site would need to be compacted to meet design standards. Such activities would consume up to 42,000 gpd of treated mine water, but only during temporary fill placement.

Because dust control and compaction of engineered fill would be temporary, as previously discussed, those water demands are not, and are not required to be, included in the buildout water demand projections.

In addition, the proposed project would have a surplus of water from the natural groundwater flow into the ground workings. Once the initial dewatering is completed, approximately 1.224 million gpd (850 gpm) are estimated to be pumped to the surface and treated at the on-site WTP on an on-going basis to maintain the dewatered mine. This water would support all project-related non-potable water demand described above. The process plant would run on a closed circuit.

The total average daily and annual water demand for project operations and potable water use is summarized below in Table 4.11-3. The source of non-potable groundwater is the mine dewatering operations and only 10 percent of the dewatering volume would be needed for non-potable water demand.

#### Projected Future Water Demand

NID's projected annual future water demand through 2040 is summarized in Table 4.11-4, which includes the demand projections from NID's 2020 UWMP, and the additional project-related demand of approximately 26.4 ac-ft/yr for Brunswick Industrial Site buildings and East Bennett Road potable water line customers.

Notwithstanding the potable demand of 26.4 acre-feet per year associated with the project, the proposed project would be a net contributor of water to the NID water system as a result of the project's ongoing discharge of treated mine dewatering water to South Fork Wolf Creek (850 gpm or about 1,371 ac-ft/yr). The possibility exists for NID to utilize the excess treated mine water discharged to South Fork Wolf Creek. If desired, NID could adjust its flows upstream to use the extra water available downstream.



**Table 4.11-3  
Projected Water Demand**

Water Use	Volume	
	Gallons per Day	Acre-Feet per Year
Brunswick Industrial Site Potable Water Use (NID)	5,700	6.4
East Bennett Residential Potable Water Use (NID)	17,900 <sup>1</sup>	20.0
<b>Total NID Potable Water Use</b>	<b>23,600</b>	<b>26.4</b>
<b>Total Groundwater Consumption for Non-Potable Water Use</b>	<b>84,000</b>	<b>94.1</b>
<b>Total Water Use</b>	<b>107,600</b>	<b>120.5</b>

<sup>1</sup> This estimate of potable water demand assumes that up to 31 residential properties along East Bennett Road could be connected to the proposed potable water supply line. As noted in this chapter, this original conservative estimate has since been refined to a maximum number of 30 potential residential properties

**Source: West Yost. Idaho-Maryland Mine Water Supply Assessment. December 1, 2021. Table 2-2.**

**Table 4.11-4  
Projected NID Service Total Water Demands with Project  
(ac-ft/yr)**

	2020	2025	2030	2035	2040
Retail	149,269	142,545	145,988	149,431	152,875
Wholesale	2,999	3,891	4,346	4,948	5,549
Unrecoverable Environmental	9,410	16,359 - 59,527	16,359 - 59,527	16,359 - 59,527	16,359 - 59,527
<b>Total Water Demand</b>	<b>161,678</b>	<b>162,795 – 205,963</b>	<b>166,693 – 209,861</b>	<b>170,738 – 213,906</b>	<b>174,783 – 217,951</b>

Notes: The District's water supplies are subject to environmental instream flow requirements as per its water rights and from the District's Federal Energy Regulatory Commission (FERC) License No. 2266 (known as the Yuba-Bear Project). Instream flow requirements are flows the District must leave in the respective streams, using the District's supplies. The current total instream flow requirement is 7,665 AFY. In order to ensure compliance, the District actually uses a total of 9,410 AFY to meet the instream requirement. A majority of these environmental instream flow requirements are not recoverable downstream by NID, and therefore represent a demand on NID's total supplies.

**Source: Nevada Irrigation District 2020 Urban Water Management Plan, July 2021, Table 3-10.**



### Projected Water Supplies

Table 4.11-5 provides a summary of the District's projected water supply entitlements.

Water Code section 10910 (c)(4) requires that a WSA include a discussion with regard to "whether 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." Accordingly, the WSA addresses these three hydrologic conditions through the year 2040, the estimates of which are presented in Table 4.11-6.<sup>47</sup> Table 4.11-6 summarizes the projected availability of NID's existing and planned future water supplies, and the District's projected water demands in normal, single dry and multiple dry years through buildout. As shown, demand within NID's service area is expected to exceed the District's supplies from 2025 to 2040 during Single Dry Years and in the first and second years of a Multiple Dry Year period from 2025 to 2040.

Factors contributing to inconsistency in NID's water supplies include legal limitations due to water rights and contracts limiting the quantity of water available to the District, environmental constraints, and reductions in availability due to climatic factors. The surface water supply to NID is subject to reductions during single and multiple dry years (seasonal and climatic shortages). NID holds senior water rights to the majority of its supply, excluding the watershed runoff supply, and has the ability to manage carry over storage quantities based on domestic, municipal and irrigation needs.

NID's contracted water supply from PG&E would be reduced in dry, critically dry, or extreme critically dry water year types. NID's watershed runoff water supply sources are covered by a combination of pre-1914 water rights, post 1914- water rights, and riparian water rights. In some California watersheds, including the Sacramento River watershed, the recent drought has resulted in diversion curtailment orders being issued in 2014 and 2015 on water rights going back to a 1903 priority date. These restrictions may continue to be placed on NID regardless of the priority of the water rights if the drought continues to be an even longer multi-year drought.

### Water Supply Sufficiency

Pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in the WSA prepared for the proposed project, the total projected water supplies determined to be available for the proposed project during Normal water years during a 15-year projection would meet the projected water demand associated with the proposed project. The connection of 30 properties as a result of the Idaho-Maryland Mine Project is included in planned projects in the NID 2020 UWMP (see 2020 UWMP, Table 2-2). Therefore, the potable water demands for buildout of the proposed project are included in the District's projected 2040 water demands. The potable water demand of the proposed project (26.4 ac-ft/yr) represents less than 0.27 percent of NID's 2020 potable water production (9,858 ac-ft/yr). Therefore, NID would be able to serve the proposed project in addition to existing and planned developments with some reliance on demand reductions in dry years by 2025.

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<sup>47</sup> The reliability of each of the District's existing and additional planned water supplies and their projected availability during normal, single dry, and multiple dry years, are described in Section 6 of the District's 2020 UWMP.



**Table 4.11-5  
NID Normal Year Projected Water Supplies (ac-ft/year)**

Water Supply	Additional Detail on Water Supply	2020 (Actual)		2025	2030	2035	2040
		Reasonably Available Volume	Total Right or Safe Yield	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Purchased Water	PG&E	-	54,361	7,500	7,500	7,500	7,500
Surface Water	Watershed Runoff	119,500	450,000	233,066	233,066	233,066	233,066
Surface Water	Carryover Storage	169,100		143,968	143,968	143,968	143,968
Recycled Water	Tertiary Treated	1,408	As available	1,408	1,408	1,408	1,408
<b>Total</b>		<b>290,008</b>	<b>-</b>	<b>385,942</b>	<b>385,942</b>	<b>385,942</b>	<b>385,942</b>

Source: Nevada Irrigation District 2020 Urban Water Management Plan, July 2021, Table 4-6 and Table 4-7. Note: A normal year is assumed.

**Table 4.11-6  
Summary of NID Water Demand Versus Water Supply During Various Hydrologic Conditions**

Hydrologic Condition	Normal, Single Dry, and Multiple Dry Years, ac ft/yr				
	2025	2030	2035	2040	
<b>Normal Year<sup>(a)</sup></b>					
Available Water Supply	385,942	385,942	385,942	385,942	
Total Water Demand	188,336 - 205,963	192,234 - 209,861	196,279 - 213,906	200,324 - 217,951	
Potential Surplus (Deficit)	197,606 - 179,979	193,708 - 176,081	189,663 - 172,036	185,618 - 167,991	
Percent Shortfall of Demand	-	-	-	-	
<b>Single Dry Year<sup>(b)</sup></b>					
Available Water Supply	91,807	91,807	91,807	91,807	
Total Water Demand	177,436	181,723	186,173	190,621	
Potential Surplus (Deficit)	-85,629	-89,916	-94,366	-98,814	
Percent Shortfall of Demand	48%	49%	51%	52%	
<b>Multiple Dry Years<sup>(c)</sup></b>					
Year 1	Available Water Supply	179,143	179,143	179,143	179,143
	Total Water Demand	183,751	188,038	192,488	196,936
	Potential Surplus (Deficit)	-4,608	-8,895	-13,345	-17,793
	Percent Shortfall of Demand	3%	5%	7%	9%
Year 2	Available Water Supply	176,630	176,630	176,630	176,630
	Total Water Demand	183,751	188,038	192,488	196,936

(Continued on next page)



**Table 4.11-6  
Summary of NID Water Demand Versus Water Supply During Various Hydrologic Conditions**

Hydrologic Condition		Normal, Single Dry, and Multiple Dry Years, ac ft/yr			
		2025	2030	2035	2040
	Potential Surplus (Deficit)	-7,121	-11,408	-15,858	-20,306
	Percent Shortfall of Demand	4%	6%	8%	10%
Year 3	Available Water Supply	381,346	381,346	381,346	381,346
	Total Water Demand	212,714	217,001	221,451	225,899
	Potential Surplus (Deficit)	168,632	164,345	159,895	155,447
	Percent Shortfall of Demand	-	-	-	-
Year 4	Available Water Supply	254,196	254,196	254,196	254,196
	Total Water Demand	188,900	193,187	197,637	202,085
	Potential Surplus (Deficit)	65,296	61,009	56,559	52,111
	Percent Shortfall of Demand	-	-	-	-
Year 5	Available Water Supply	282,920	282,920	282,920	282,920
	Total Water Demand	188,900	193,187	197,637	202,085
	Potential Surplus (Deficit)	94,020	89,733	85,283	80,835
	Percent Shortfall of Demand	-	-	-	-

Notes:

- (a) Nevada Irrigation District 2020 Urban Water Management Plan, July 2021, Table 5-4.
- (b) Nevada Irrigation District 2020 Urban Water Management Plan, July 2021, Table 5-5
- (c) Nevada Irrigation District 2020 Urban Water Management Plan, July 2021, Table 5-6.

**Source: Nevada Irrigation District 2020 Urban Water Management Plan, July 2021, Table 3-10.**



Water supply exceeds demand, including addition of the Idaho-Maryland project, during normal years and therefore sufficient water supply to service the project is available during normal years.

Water demand within NID's service area is expected to exceed the District's supplies by more than 45 percent from 2025 to 2040 in Single Dry Years and by less than 10 percent from 2025 to 2040 during the first and second years of a Multiple Dry Year period. However, this project is not expected to exacerbate NID's water supply shortages during dry years and the project will supply water into South Fork Wolf Creek, and into the NID water conveyance system, at volumes exceeding the project water demand for potable water from NID. The 26.4 ac-ft per year potable water demand of the project is very small in comparison to the 4,696 ac-ft of water supplied by the Elizabeth George and Loma Rica water treatment plants in 2020 and the estimated surplus treated groundwater discharge from the proposed mine of approximately 1,371 ac-ft per year.

As previously discussed, the 2020 UWMP projects that demand would exceed supplies during single dry year and multiple dry year scenarios. This illustrates the highly variable reliability of a snowpack-based supply system during drought periods. There are numerous management and operational efforts available to NID to address supply shortfall during drought periods. Demand reductions, carryover storage strategies, system operational strategies, supplemental supplies, increased storage, and others are all options to evaluate in creating NID's future water resources management supply strategy in the Plan for Water process. In its 2020 UWMP, NID assumed carryover water would be reduced by the same quantity as the watershed runoff (approximately 81 percent). This is likely a conservative assumption as carryover storage is water from the previous year that is stored in reservoirs. NID documents carryover storage in Normal years is expected to be over 140,000 acre-feet (see Section 6.2 and Table 6-4 of the UWMP). It is possible that the year prior to a Single Dry Year would not be as dry as the Single Dry Year and therefore carryover storage would be closer to the value for a Normal Year. A larger value of carryover storage would translate to less severe water supply deficits. NID will be reviewing the assumptions in the 2020 UWMP as part of the Plan for Water.

This project would be subject to any applicable water demand cutbacks during droughts, similar to other NID potable water customers who are served by NID. NID's Drought Plan (Water Shortage Contingency Plan), outlined in Section 6 of the District's 2020 UWMP, includes a six-stage plan describing specific actions to reduce water demand by up to 50 percent in the event of a water supply shortage or emergency. In 2015, as a response to the Governor's Executive Order, NID also passed a resolution for treated water conservation to achieve 36 percent water use reduction from 2013 water use between the months of May through September. NID's customers were able to achieve the target reductions during a number of months in 2015 and 2016. For all of 2015 and 2016, water reduction was 27 percent and 22 percent, respectively. During multiple dry years, NID's Water Shortage Contingency Plan would take effect and mandatory conservation would help decrease the shortfall. According to NID staff, if supplies become extremely critical, drinking water supplies may be reduced but would not be cut off to protect public health and safety.



NID is in the early stages of a long-term visioning and planning effort to better understand potential future conditions and needs and identify management and operational practices to meet those needs. The process, Plan for Water, will identify optional water management practices as triggering points in supply, demand, regulatory, legal, and other events are reached. These practices may include supply projects, demand management efforts, policy changes, and others.

As further documented in the UWMP, NID has rights to water from the Bear River and South Yuba River. Because NID is not the senior water right holder, none of the water supply available to NID from these sources has been included in the UWMP water supply projections. However, the UWMP documents that it is likely that NID would receive at least a portion of their rights to water from the Bear River and South Yuba River in dry years.<sup>48</sup> This would reduce the potential water shortage in single dry and multiple dry years.

### Conclusion

Based on the above, sufficient water supplies would be available to serve the proposed project, as well as existing and reasonably foreseeable future development during normal, dry, and multiple dry years. Thus, a ***less-than-significant*** impact would occur.

### Mitigation Measure(s)

*None required.*

#### **4.11-8 Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Based on the analysis below, the impact is *less than significant*.**

This impact evaluation considers whether the project would adversely impact a wastewater treatment provider's ability to serve existing commitments and projected demand due to capacity limitations. The proposed project would generate limited wastewater at the Brunswick Industrial Site through use of toilets, sinks, showers, and laundry. This wastewater would be directed to an on-site septic system for disposal.

According to the septic system evaluation prepared for the Brunswick Industrial Site, a relatively large, acceptably permeable soil area has been identified within the proposed leach field area, just south of the proposed engineered fill footprint, and set back 100 feet from the property line. The evaluation concludes that the project site is suited for a Pressure Dose sewage disposal system with a minimum of 1,935 lineal feet of leach line. A minimum 10,000-gallon septic pump tank with watertight risers over each lid and outlet effluent filter would be required. The pump tank would be oversized in order to accommodate for potential power loss, backups, and surge flows in the future.

<sup>48</sup> Nevada Irrigation District. 2020 Urban Water Management Plan [pg. 31]. July 2021.



The project would also include portable chemical toilets and hand-washing stations to employees working underground at Brunswick and temporarily at the Centennial Industrial Site. The applicant will be required to obtain a Portable Toilet with Portable Hand Washing Station Annual Permit from the Nevada County Department of Environmental Health (NCDEH) and pay any associated permit fees. The portable toilets and hand washing stations will be serviced on a routine basis as determined by the NCDEH and said service will be provided by a licensed and certified septic pumper commercial business. The liquid waste periodically pumped from the portable toilets would be discharged at a wastewater treatment facility, assumed to be the City of Grass Valley WWTP. The relatively limited waste generated by these portable toilets could be accommodated at the WWTP given its available capacity (as of 2016, the WWTP had an available average dry weather flow capacity of approximately 1.48 mgd, which is currently anticipated to be similar given the City's very low growth rates over the recent past).<sup>49</sup>

Thus, wastewater treatment providers would not be involved with, nor affected by, the proposed project. Therefore, a **less-than-significant** impact would occur.

Mitigation Measure(s)

*None required.*

**4.11-9 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or conflict with federal, State, and local management and reduction statutes and regulations related to solid waste. Based on the analysis below, the impact is *less than significant*.**

Solid waste would be generated by the proposed project during the construction and operation phases. Construction debris would be limited given that all buildings on the Brunswick Industrial Site would be pre-fabricated steel buildings and no structures would be built on the Centennial Industrial Site. In addition, consistent with the CALGreen Code, the contractor would be required to divert 65 percent of the construction waste materials generated during the project. Off-site construction of the potable water pipeline in East Bennett Road could generate approximately 1,200 cubic yards of asphalt waste (not accounting for diversion).

During operation of the proposed project, mine employees would generate daily solid waste. Using industrial waste rates, it is estimated that at full operation of the mine (i.e., 312 employees) approximately 2,786 pounds, or 6.2 cubic yards of solid waste, could be generated per day.<sup>50</sup>

<sup>49</sup> City of Grass Valley. *Wastewater System Master Plan*. August 23, 2016; City of Grass Valley. *City of Grass Valley 2019-2027 Housing Element*. Adopted August 13, 2019, pg. II-1.

<sup>50</sup> California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>. Accessed January 22, 2021.



Solid waste from the proposed project would be transported to the Lockwood Landfill outside of Reno, Nevada. The Lockwood Regional Landfill has a waste volume of approximately 32.8 million cubic yards, with a capacity of 302.5 million cubic yards.<sup>51</sup> Thus, the Lockwood Landfill has sufficient capacity to accommodate the project's construction and operational solid waste.

As previously discussed, however, the McCourtney Road Transfer Station, to which the project's solid waste would first be transported, does not have sufficient capacity to accommodate the volume of vehicles regularly delivering waste to the site, particularly on peak use periods throughout the spring, summer, and fall.<sup>52</sup> This capacity constraint is partly due to the site's compact size and limited queuing area. In addition, the amount of recyclable materials accepted at the Transfer Station has increased over the last several years due to the closure of most buy-back and drop-off facilities both locally and regionally. However, Nevada County has designed an improvement project to resolve the existing issues, which is currently undergoing environmental review, and funding for the expansion project has been allocated in the County's CIP.

This project would also generate mining waste. California Water Code Section 13050(q)(1) defines mining waste as soil, waste rock, and overburden, as defined in Section 2732 of the PRC, and tailings, slag, and other processed waste materials. However, this waste is not subject to solid waste reduction goals, nor would it be disposed of at a landfill. Rather, the barren rock extracted from the mine would be used as engineered fill on the Centennial and Brunswick Industrial Sites, and hauled to market. Mineralized ore extracted from the mine would be used both as backfill (after processing at the Process Plant) and engineered fill, similar to barren rock.

In addition, as part of the proposed project, settled solids ("sludge") would be removed from the clay-lined settling pond approximately every 10 years. The volume of the pond, assuming operational freeboard, is approximately 23 acre-feet. Assuming a flow rate of 850 gpm and a sludge density of approximately 122 lbs/ft<sup>3</sup> (16.4 ft<sup>3</sup>/ton), approximately one percent of the operational volume of the pond would be required to impound sludge over a period of 10 years.<sup>53</sup> This correlates to approximately 420 tons of sludge being removed from the pond every 10 years. Regional landfills can accommodate this additional solid waste, be it Lockwood Regional Landfill, Ostrom Road Landfill (Yuba County), Kiefer Landfill (Sacramento County), etc.<sup>54,55</sup>

The removal of sludge from the pond can be achieved with slurry pumps and the periodic sludge dewatering activities can be performed using Rise's mining-related process plant equipment, which includes thickeners and filter presses. It is anticipated

<sup>51</sup> Nevada Division of Environmental Protection. *Lockwood Fact Sheet*. Available at: <https://ndep.nv.gov/uploads/land-waste-solid-fac-docs/lockwood-fact-sheet.pdf>. Accessed January 22, 2021.

<sup>52</sup> Nevada Division of Environmental Protection. *Lockwood Fact Sheet*. Available at: <https://ndep.nv.gov/uploads/land-waste-solid-fac-docs/lockwood-fact-sheet.pdf>. Accessed January 22, 2021.

<sup>53</sup> Linkan Engineering. *Idaho-Maryland Water Treatment Plant Design Report*. February 2021, pg. 5-3.

<sup>54</sup> California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details: Recology Ostrom Road LF Inc. (58-AA-0011)*. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/733?siteID=4075>. Accessed March 20, 2021.

<sup>55</sup> California Department of Resources Recycling and Recovery. *SWIS Facility/Site Activity Details: Sacramento County Landfill (Kiefer) (34-AA-0001)*. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2070?siteID=2507>. Accessed March 20, 2021.



that the process plant equipment would be temporarily repurposed for sludge removal and dewatering, as necessary. If the process plant cannot accommodate sludge removal activities for any reason, the sludge could also be dewatered using mobile dewatering equipment (belt press, centrifuge, settling tanks, etc.) that is readily available from contractors and service providers who specialize in sludge removal from treatment ponds.

Based on the above, construction and operation of the proposed project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. In addition, the project would not conflict with applicable federal, State, and local management and reduction statutes and regulations related to solid waste. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

*None required.*

**Cumulative Impacts and Mitigation Measures**

For detail regarding the cumulative setting for this EIR analysis, refer to Chapter 5, Statutorily Required Sections of this EIR.

**4.11-10 Increase in demand for public services associated with the proposed project, in combination with cumulative development. Based on the analysis below, the cumulative impact is *less than significant*.**

For fire protection services, the Centennial Industrial Site is located within both the NCCFD and the Ophir Hill FPD, whereas the Brunswick Industrial Site is located entirely within the Ophir Hill FPD. The primary demand upon fire protection agencies attributable to the proposed project would be associated with operations at the Brunswick Industrial Site, given the presence of new above-ground structures that could be subject to structural fires, and considering that the Brunswick Industrial Site would support the majority of the employee workforce, some of whom could require emergency medical attention.

The potential for structural fires to occur within other on-site structures would be minimized by the steel construction of all on-site buildings and proper storage of hazardous materials in accordance with federal and state regulations. In addition, all buildings will meet all fire code requirements as set forth by CBSC and CFC, which could include fire sprinklers and fire alarms, as determined by the County Fire Marshal at building permit stage, depending upon building and occupancy type. The Brunswick Industrial Site would also include installation of a fire flow system that would connect to the 18-inch NID water main in Brunswick Road. Two existing fire service lines (6-inch and 8-inch) extend into the Brunswick Industrial Site from the 18-inch line on Brunswick Road. During final improvement plan review, the County Fire Marshal would review the fire flow system to ensure that it meets CFC requirements.



As previously discussed, Ophir Hill FPD could respond to emergency incidents at the Brunswick Industrial Site within its response time goal of 5 minutes 90 percent of the time.<sup>56</sup> Thus, a new fire station or expansion of Station 52 would not be needed for Ophir Hill FPD to respond to incidents at the Brunswick Industrial Site within its response time goal. In addition, the proposed project would be subject to payment of Ophir Hill FPD's and NCCFD's fire impact fees, which are used to help off-set the impact that new construction has on the Districts. Rise Grass Valley has also committed to fund a new fire engine and three full-time firefighters, which would be required by the County through project conditions of approval or other acceptable mechanism.

Other cumulative development would similarly be designed in compliance with state and local fire regulations, thus reducing demand on local fire service providers. Given that the majority of cumulative projects identified in Chapter 5 are consistent with their respective general plans, the incremental demand upon fire protection services from these projects has been anticipated and incorporated into planning efforts. In addition, the majority of cumulative projects (see Figure 5-1) are located near existing fire station locations, enabling efficient emergency response without the need to construct new stations.<sup>57</sup> The Dorsey Marketplace project within the City of Grass Valley involves a general plan amendment due to the requested land use types, and thus demand for services attributable to the Dorsey Marketplace project have not necessarily been anticipated in previous planning efforts; however, this project would be served primarily by GVFD, and the Dorsey Marketplace EIR (2019) concluded that cumulative effects related to fire protection services would be less than significant.<sup>58</sup> Therefore, the proposed project, in combination with future cumulative development, would result in a less-than-significant cumulative impact related to the need for new, or improvements to existing, fire facilities.

With respect to law enforcement, the project-level analysis determined that the Nevada County Sheriff's Office services would not be adversely affected by the proposed project's incremental demand, and the headquarters would not require expansion to enable the Sheriff's Office to adequately serve the proposed project in addition to current demands.<sup>59</sup> Given that the majority of cumulative projects identified in Chapter 5 are consistent with their respective general plans, the incremental demand upon law enforcement from these projects has been anticipated and incorporated into planning efforts. With respect to Housing Element Sites 3 and 5, Housing Element Rezone Program Implementation EIR (2013) Mitigation Measure 4.13-1c requires that "Prior to the occupancy of any new development, the project developer shall ensure adequate staffing and police or sheriff service response times dictated by population." The Dorsey Marketplace project within the City of Grass Valley involves a general plan amendment due to the requested land

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<sup>56</sup> Personal communication between Robb Rothenberger, Fire Chief, Ophir Hill Fire Protection District, and Nick Pappani, Vice President, Raney Planning & Management, Inc., January 6, 2021.

<sup>57</sup> It is also noted that Mitigation Measure 4.13-1a from the Housing Element Rezone Program Implementation EIR (2013) requires that "Prior to the occupancy of any new development, the project developer shall ensure adequate staffing and fire service response times dictated by population." In addition, Mitigation Measure 4.13-1c requires that "Prior to the occupancy of any new development, the project developer shall ensure adequate staffing and police or sheriff service response times dictated by population."

<sup>58</sup> Dudek. *Dorsey Marketplace EIR* [pg. 14-38]. March 2019.

<sup>59</sup> *Ibid.*



use types; however, this project would be served by Grass Valley Police Department, and the Dorsey Marketplace EIR (2019) concluded that cumulative effects related to law enforcement would be less than significant.<sup>60</sup>

Schools in the surrounding school districts are predominantly operating below their enrollment capacity. Thus, the potential for cumulative buildout, as defined in Chapter 5 of this EIR, to result in overcrowding at schools in the area is unlikely. Nevertheless, each individual development would be required to pay SB 50 school impact fees, similar to the proposed project, which would contribute to the facilitation of school expansions in order to serve the needs of the area. Furthermore, according to SB 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any “[...] legislative or adjudicative act [...] involving [...] the planning, use, or development of real property” (Government Code 65996(b)). Therefore, the proposed project, in combination with future cumulative development, would result in a less-than-significant cumulative impact related to the need for new, or improvements to existing, school facilities.

With respect to parks, several of the cumulative projects identified in Chapter 5 are residential, and thus, would place greater demand on existing parks. However, these residential projects would each be subject to dedication of on-site park land or payment of park impact fees, in accordance with local regulations, which are intended to offset each project’s incremental impact on existing park facilities. Furthermore, the remainder of the cumulative projects are small non-residential projects which would not be expected to generate substantial new demand for parks. As previously discussed, the project’s incremental demand for parks would not result in the need to expand existing parks.

Other public services such as libraries and the County jail, would not be significant impacted by the project’s incremental demand of an additional 0.24 inmate bed at the County jail, and 72 additional square feet of library space, pursuant to the calculation methodology in Policy 3.10 of the County General Plan. Given that the majority of cumulative projects identified in Chapter 5 are consistent with their respective general plans, the incremental demand upon law enforcement from these projects has been anticipated and incorporated into planning efforts.

Based on the above, the proposed project, in combination with the cumulative list of projects, would have a **less-than-significant** cumulative impact related to resulting in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

#### Mitigation Measure(s)

*None required.*

<sup>60</sup> Dudek. *Dorsey Marketplace EIR* [pg. 14-41]. March 2019.



**4.11-11 Increase in demand for utilities and service systems associated with the proposed project, in combination with cumulative development. Based on the analysis below, the cumulative impact is *less than significant*.**

Water Supply

NID's UWMP includes future water demand projections, as shown in Table 4.11-4. NID's future treated water distribution system connections and population are projected in Section 2 of the UWMP. The UWMP developed average annual growth rates based on the historical growth rate for each customer classification to determine the number of projected connections for the period 2020 through 2040.

The cumulative project list identified for this EIR includes a range of projects consistent with their respective agency's General Plan. This means that the growth associated with the cumulative projects is accounted for in NID's UWMP as growth is based upon coordination with agencies and their planning documents. Furthermore, the majority of cumulative projects are relatively small in scale. The two larger projects consist of Dorsey Marketplace and Loma Rica Ranch Specific Plan. According to a letter from NID on the Dorsey Marketplace EIR, NID's "UWMP anticipated growth and increased demands based upon Grass Valley's planning documents. This approach means proposed future water demands from developments such as the Dorsey Marketplace were included in the District's UWMP as anticipated growth."<sup>61</sup> With respect to the Loma Rica Ranch Specific Plan, this master planned project was approved in 2011 by the City of Grass Valley. Thus, the future demand projections included in NID's 2020 UWMP, which are based on agency planning documents, accounted for the water demand from the Loma Rica Ranch Specific Plan. This is also confirmed in Table 2-2 of NID's 2020 UWMP. Housing Element Sites 3 and 5 were rezoned in 2018, resulting in an increase in the allowable density from a combined total of approximately 71 dwellings units (using former R2-PD zoning) to approximately 189 dwelling units (using current R3-RH zoning). This equates to a net increase of 118 units for Sites 3 and 5, which would result in an increase in the demand for potable water supply.

As previously discussed, Table 4.11-6 summarizes the projected availability of NID's existing and planned future potable water supplies, and the District's projected water demands in normal, single dry and multiple dry years through buildout. As shown, demand within NID's service area is expected to exceed the District's supplies from 2025 to 2040 during Single Dry Years and in the first and second years of a Multiple Dry Year period from 2025 to 2040.

The NID's Water Shortage Contingency Plan, outlined in Section 6 of the District's 2020 UWMP, includes a six-stage plan describing specific actions to reduce water demand by up to 50 percent in the event of a water supply shortage or emergency. In 2015, as a response to the Governor's Executive Order, NID also passed a resolution for treated water conservation to achieve 36 percent water use reduction

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<sup>61</sup> Nevada Irrigation District. *Re: Comments Regarding the Notice of Completion (NOC) of the Draft Environmental Impact Report (EIR) for the Dorsey Marketplace Project*. May 1, 2019, included as Comment Letter F in the Dorsey Marketplace Final EIR (SCH# 2016022053). October 2019.



from 2013 water use between the months of May through September. NID's customers were able to achieve the target reductions during a number of months in 2015 and 2016. For all of 2015 and 2016, water reduction was 27 percent and 22 percent, respectively.

As further documented in the UWMP, NID has rights to water from the Bear River and South Yuba River. Because NID is not the senior water right holder, none of the water supply available to NID from these sources has been included in the UWMP water supply projections. However, the UWMP documents that it is likely that NID would receive at least a portion of their rights to water from the Bear River and South Yuba River in dry years.<sup>62</sup> This would reduce the potential water shortage in single dry and multiple dry years. In addition, in its 2020 UWMP, NID assumed carryover water would be reduced by the same quantity as the watershed runoff (approximately 81 percent). This is likely a conservative assumption as carryover storage is water from the previous year that is stored in reservoirs. NID documents carryover storage in Normal years is expected to be over 140,000 acre-feet (see Section 6.2 and Table 6-4 of the UWMP). It is possible that the year prior to a Single Dry Year would not be as dry as the Single Dry Year and therefore carryover storage would be closer to the value for a Normal Year. A larger value of carryover storage would translate to less severe water supply deficits.

In addition, as previously discussed, notwithstanding the potable demand of 26.4 acre-feet per year associated with the project, the proposed project would be a net contributor of water to the NID water system as a result of the project's discharge of treated mine dewatering water to South Fork Wolf Creek (850 gpm or about 1,371 ac-ft/yr).

### Wastewater

As previously discussed, the proposed project would not connect to a public wastewater system, but rather, the wastewater generated at the Brunswick Industrial Site (e.g., toilets, sinks, showers, laundry) would be properly disposed of at an on-site leach field, designed in conformance with County Environmental Health standards. This would be an on-site operation that would not have the potential to combine with other projects to produce related cumulative effects. With respect to the temporary operations at the Centennial Industrial Site and underground mine work at Brunswick, the project would include portable chemical toilets and hand-washing stations to employees, the waste from which would occasionally need to be pumped and disposed of at a WWTP, assumed to be the Grass Valley WWTP. The limited waste from these portable toilets would have a minor incremental effect on WWTP available capacity.

### Electricity

PG&E has confirmed that there are electric facilities available to serve the proposed project in accordance with all applicable design standards, rules, and tariffs on file with the State of California Public Utilities Commission. Electricity for the proposed project would be supplied by the 12 kV PG&E line along Brunswick Road. Given that the majority of cumulative projects identified in Chapter 5 are consistent with their

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<sup>62</sup> Nevada Irrigation District. *2020 Urban Water Management Plan* [pg. 31]. July 2021.



respective general plans, the incremental demand upon energy from these projects has been anticipated and incorporated into local planning efforts. The Dorsey Marketplace project within the City of Grass Valley involves a general plan amendment due to the requested land use types. The Dorsey Marketplace EIR (2019) concluded that cumulative effects related to electricity demand from the City of Grass Valley General Plan would be less than significant.<sup>63</sup> Therefore, the proposed project, in combination with future cumulative development, would result in a less-than-significant cumulative impact related to the need for new, or improvements to existing, electrical facilities.

### Solid Waste

As noted previously, solid waste collection services for the proposed project would be provided by Waste Management, who would transport the waste to the McCourtney Road Transfer Station, and ultimately to Lockwood Landfill. With the current space available, the landfill would have sufficient capacity to serve the project. While the transfer station is capacity constrained, Nevada County has designed an improvement project to resolve the existing issues, which is currently undergoing environmental review, and funding has been allocated in the County's CIP.

Although the proposed project includes rezoning of the Brunswick Industrial Site, the site is already zoned for industrial uses; thus, the project would not be anticipated to result in significantly more intense waste generation than was previously anticipated for the project site in regional solid waste planning efforts. In addition, the cumulative list of projects would generate solid waste, most of which has been anticipated by regional planning efforts, given that the majority of cumulative projects are consistent with the adopted planning documents of their respective jurisdictions. While the Dorsey Marketplace project involves an amendment to the Grass Valley General Plan, the solid waste generated by said project (171 dwelling units, approximately 104k square of non-residential uses) could easily be accommodated by the Lockwood Landfill's capacity.

### Conclusion

Water supply exceeds existing and projected future demand, including addition of the Idaho-Maryland project, during normal years. Therefore, sufficient water supply is available to service existing and future reasonably foreseeable development during normal years.

Water demand within NID's service area is expected to exceed the District's supplies by more than 45 percent from 2025 to 2040 in Single Dry Years and by less than 10 percent from 2025 to 2040 during the first and second years of a Multiple Dry Year period. This supply deficit can be addressed through NID's previously discussed Water Shortage Contingency Plan, and as previously mentioned, the proposed project would be a net contributor of water to the NID water system. With respect to wastewater, the proposed project would not combine with other cumulative projects' demand for wastewater treatment capacity as the project includes an on-site sewage disposal system.

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<sup>63</sup> Dudek. *Dorsey Marketplace EIR* [pg. 14-2]. March 2019.



Solid waste from the proposed project and other cumulative development could easily be accommodated at the Lockwood Landfill, and while the McCourtney Road Transfer Station has capacity constraints, Nevada County has allocated funding in its CIP to expand the transfer station. Electricity demand from the proposed project in combination with cumulative development could be served by existing without the need for new production facilities.

With the exception of the Dorsey Marketplace project, the list of cumulative projects identified in Chapter 5 of this EIR, are consistent with their respective jurisdiction's adopted planning documents, and thus, the incremental demand these projects would place on utilities has been anticipated in local planning efforts. The Dorsey Marketplace EIR concludes that cumulative impacts due to buildout of Dorsey Marketplace and the Grass Valley General Plan would result in less-than-significant cumulative impacts. Thus, the proposed project, in combination with cumulative development, would have a ***less-than-significant*** cumulative impact to utilities.

Mitigation Measure(s)

*None required.*

