ATTACHMENT A - PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

1.1 PROJECT OVERVIEW

Onward Energy proposes to construct, own, and operate the Goal Line Reliability Project (Project), a lithium-ion battery energy storage facility capable of delivering up to 50 MW of energy storage with an 8-hour capacity rating on approximately 4.5 acres within the approximately 6.5-acre site containing an existing electrical generation facility and a non-operational ice-rink facility (Project Site). Energy stored in the Project will then be discharged into the grid when the energy is needed, providing important electrical reliability services to the local area. It is expected that between two to four staff members will visit the site weekly and as needed for maintenance and monitoring of the Project. The Project will be operated remotely with no permanent on-site operations personnel. No changes are proposed to the existing electrical generation assets or operations as part of the Project.

1.2 PROJECT DESCRIPTION

The approximately 6.5-acre Project Site is located at 555 Tulip Street, within Escondido, California, 92626 (Figure 1). The Project Site currently contains a non-operational ice-rink and a 50 MW natural gas power plant (Figure 2). The existing ice-rink will be demolished and the Project facilities will be constructed in its place. The parking facilities and other structures adjacent to the natural gas power plant facilities, which will remain. This includes an area of approximately 4.5 acres.

FACILITIES DESCRIPTION

The Project will be capable of delivering energy storage services to the electrical transmission grid through SDGE's Esco substation. The major components of the Project are described below and summarized in Table 1-1. The ultimate make, model, and manufacturer of the batteries, including equipment sizing and count, is still under consideration. As such, details associated with Project facilities is intended to "envelope" the foreseeable component models available at the time of Project construction. Exact dimensions and specifications are dependent on technology selection; however, the following information is a reasonable "worst case" assumption for the purposes of permitting and analyzing impacts from the Project.

Batteries housed within BESS Enclosures: The Project consists of lithium-based battery modules installed in racks and housed within purpose-built outdoor Battery Energy Storage System (BESS) enclosures. A typical BESS enclosure will house hundreds of battery modules where each enclosure is typically capable of storing between 0.4 to 5 megawatt-hours (MWh) of energy.

Each individual module within an enclosure is equipped with integrated operational management systems, fire and safety systems (HVAC systems, ventilation, gas, heat and smoke detection and alarms, and fire suppression systems) all designed, constructed, and operated pursuant to the version of the California Fire Code in effect at the time of building permit issuance. The modules within each enclosure are accessed for maintenance from the outside via cabinet doors.

The dimensions of a typical BESS enclosure vary between manufacturers and are arranged in repeated "blocks" across the site. System blocks may consist of a single enclosure, or several smaller enclosures set side-by-side to create banks of batteries with similar overall dimensions. Smaller enclosures are typically closely spaced or physically attached at the time to construction, and larger enclosures are placed in smaller groupings or individually. An enclosure grouping typically consist of 4 to 12 enclosures measuring approximately 30 feet long by 6 feet wide with a height of 10 feet. Smaller enclosures may be as small as 3.5 feet long by 5 feet wide by 8 feet tall while larger enclosures may measure over 50 feet long by 12 feet wide with a height of up to 20 feet. Enclosures may also be double stacked if designed to do so, which is anticipated for this Project. However, the number, size, layout, and capabilities of each enclosure will vary depending on the battery, enclosure manufacturer design, and BESS system manufacturer(s) selected for the Project. Regardless of the system manufacturer, the Project's developed footprint and overall capability will remain substantially the same. In some instances, the battery enclosures may contain inverters which convert low voltage direct current (DC) to alternating current (AC) (and vice-versa when charging).

Current technological selections include two options for mounting HVAC on the containers: side mounted and top mounted. Each individual module is monitored and controlled to ensure safe and efficient operations. Battery enclosures will be placed within a defined and stable total footprint on the Project site.

Power Conversion System (PCS): Low voltage DC cables will connect the battery enclosures to low profile, pad-mounted PCS inverter-transformers located adjacent to each enclosure. Inverters within the PCS convert electricity from low voltage DC to low voltage AC when power is being taken (discharged) from the battery into the grid. The opposite occurs when charging the battery from the grid. A medium voltage transformer within the PCS is used to convert the low voltage AC current to medium voltage AC current and vice versa.

Medium Voltage (MV) Transformers: As stated above, in some instances the inverter is contained within the battery enclosures and a stand-alone transformer is used instead of a PCS. In this instance, the MV Transformer equipment is connected directly to the battery enclosures via low-voltage AC wiring. Additional MV Transformers, also referred to as Auxiliary Transformers, will also be sited to provide power to auxiliary equipment and other site electrical needs such as lighting, receptacles, and life-safety equipment and to power the PDC.

Outdoor Electrical Equipment: Other additional electrical equipment such as electrical cabinets and panels will be installed outside the BESS enclosures within the site area. This equipment is smaller in size than the equipment listed above and is distributed through the site as needed based on the design parameters of the battery and power conversion equipment chosen. In addition, buried cable will be placed throughout the site to connect power and communications to individual components and to the Project Substation. All outside electrical equipment will be housed in the appropriate National Electrical Manufacturers Association (NEMA) rated enclosures.

Power Distribution Center (PDC): The PDCs are enclosures that house and protect key Project electrical, communication and command equipment located near the Main Power Transformers.

Main Power Transformer (MPT): The Main Power Transformers step-up the medium voltage electricity from the inverter-transformer to the high-voltage level of the transmission system, delivering it into the grid via a high-voltage generation tie-line.

Generation tie-line: The Project will interconnect to the existing, adjacent SDGE Esco Substation via an existing overhead generation tie-line.

Other Site Design Features: The Project includes other essential design features to ensure safety, security, and efficiency as well as compliance with all building, fire, and health and safety regulations, including setbacks, fire-operations access roads, security fencing and lighting, and separation between equipment and other features. Drainage facilities will be installed to route stormwater to the existing on-site storm drain systems in a manner generally consistent with the existing facilities.

Table 1-1. Project Equipment Details

Equipment	Description	Number of Units/Size of Footprint in Acres	Height
Battery Containers with Top Mounted A/C	Integrated battery, battery controls and ancillary equipment with HVAC.	Approximately 4.5 acres	Up to 20 feet
Battery Containers with Side Mounted A/C	Integrated battery, battery controls and ancillary equipment with HVAC.	Approximately 4.5 acres	Up to 25 feet
PCS's and/or MV Transformers	Power conversion systems (PCS) inverters and LV-MV Transformer equipment and skids	Contained within the approximately 4.5 acres of battery containers	10 feet
PDC	Power Distribution Center - substation controls building	Contained within the approximately 6.5 acres of overall project area	20 feet
MPT (aka GSU)	Main power high voltage transformer	Contained within the approximately 6.5 acres of overall project area	30 feet; static masts up to 100 feet
Auxiliary Transformers	MV-LV Auxiliary Transformers for equipment back-feed power	Approximately 5; Contained within the approximately 4.5 acres of battery containers	10 feet
Transmission Towers/Poles	Steel monopole or wood pole electrical transmission structures	Up to 2, depending on interconnection conditions	Up to 100 feet depending on interconnection conditions
Other lighting, electrical, safety, communications, and security equipment	Various	–	Switchgear cabinets and power distribution panels up to 10 feet; junction boxes and telephony equipment up to 8 feet

Access to the Project site will be provided via two driveways from Tulip Road. Site access will comply with City and County regulations in order to provide access to operational, fire department, and emergency vehicle access to the facility. The site plan proposes to abandon the two existing central drives and adjust the existing sidewalk accordingly.

The Project Site currently has retail electrical, telecommunications, water, sanitary sewer, storm sewer and natural gas services. No sanitary sewer or natural gas connections are proposed as part of the Project with the existing services to the existing natural gas plant to remain in place. Additional storm sewer connections and fire water connections will be made on an as-needed basis, as determined by final equipment selection. Reconfiguration of retail electrical infrastructure is anticipated with the demolition phase. On-site upgrades to telecommunications infrastructure are anticipated. However, no significant offsite system upgrades are anticipated to any utilities at this time.

1.3 PROJECT LOCATION AND LAND USE DESIGNATION

The Project Site is located within the City of Escondido's (City) General Plan land use designation of General Industrial (GI) and is within the Planned Development – Industrial (PD-I) zone (Figures 3 and 4). The Project is surrounded by developed parcels consisting of businesses such as a building materials supplier to the northwest, construction and paint businesses to the north, and the Plaza Las Palmas shopping mall to the south across the channel. Interstate 15 borders the Project site to the south.

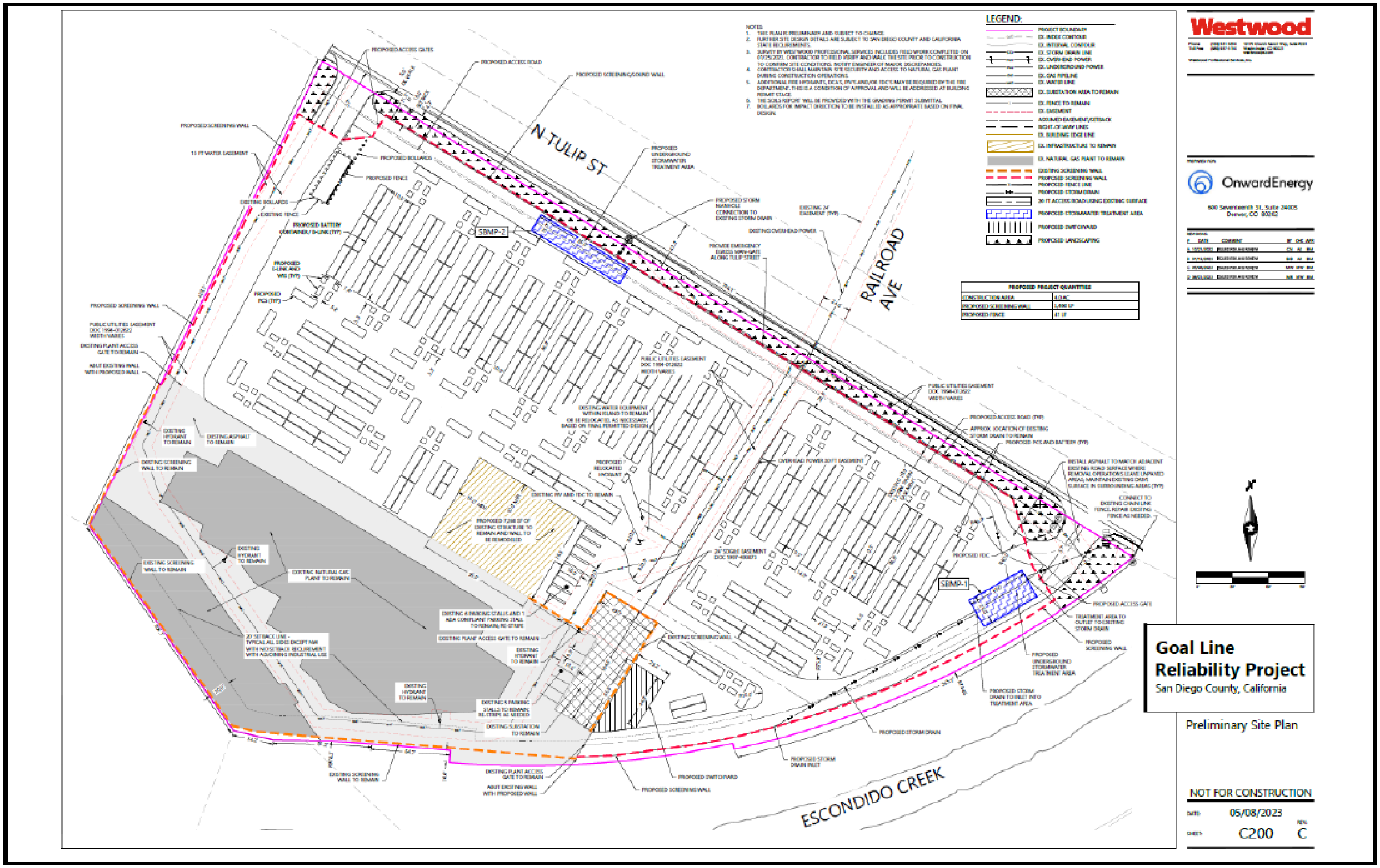
The Project includes a Zoning Map Amendment (ZMA) to amend the underlying zoning designation to General Industrial (M-2). With a zoning change to M-2, the Project site would be consistent with the City's zoning. This designation permits a wide range of manufacturing warehousing/distributing, assembling and other heavy or intensive uses. This designation allows "utilities," including the Project. Under Section 33-564 of the Municipal Code, utilities are considered a permitted use within the M-1 and M-2 zone. Additionally, the Project includes a Zoning Text Amendment (ZTA) to modify existing fence standards to allow for an increase in fence height on a case-by-case basis. Finally, the Project will require a Major Plot Plan for the construction of the energy storage facility.

The following entitlements are required from the City:

- Zone Map Amendment to amend the City's Zoning Map
- Zone Text Amendment to amend the City's Zoning Ordinance to allow for an increase in fence height on a case-by-case basis
- Major Plot Plan for the development of the site for the purposes of the energy storage facility.

Figure 1 - Project Location and Vicinity Map

Figure 2 – Project Site Plan

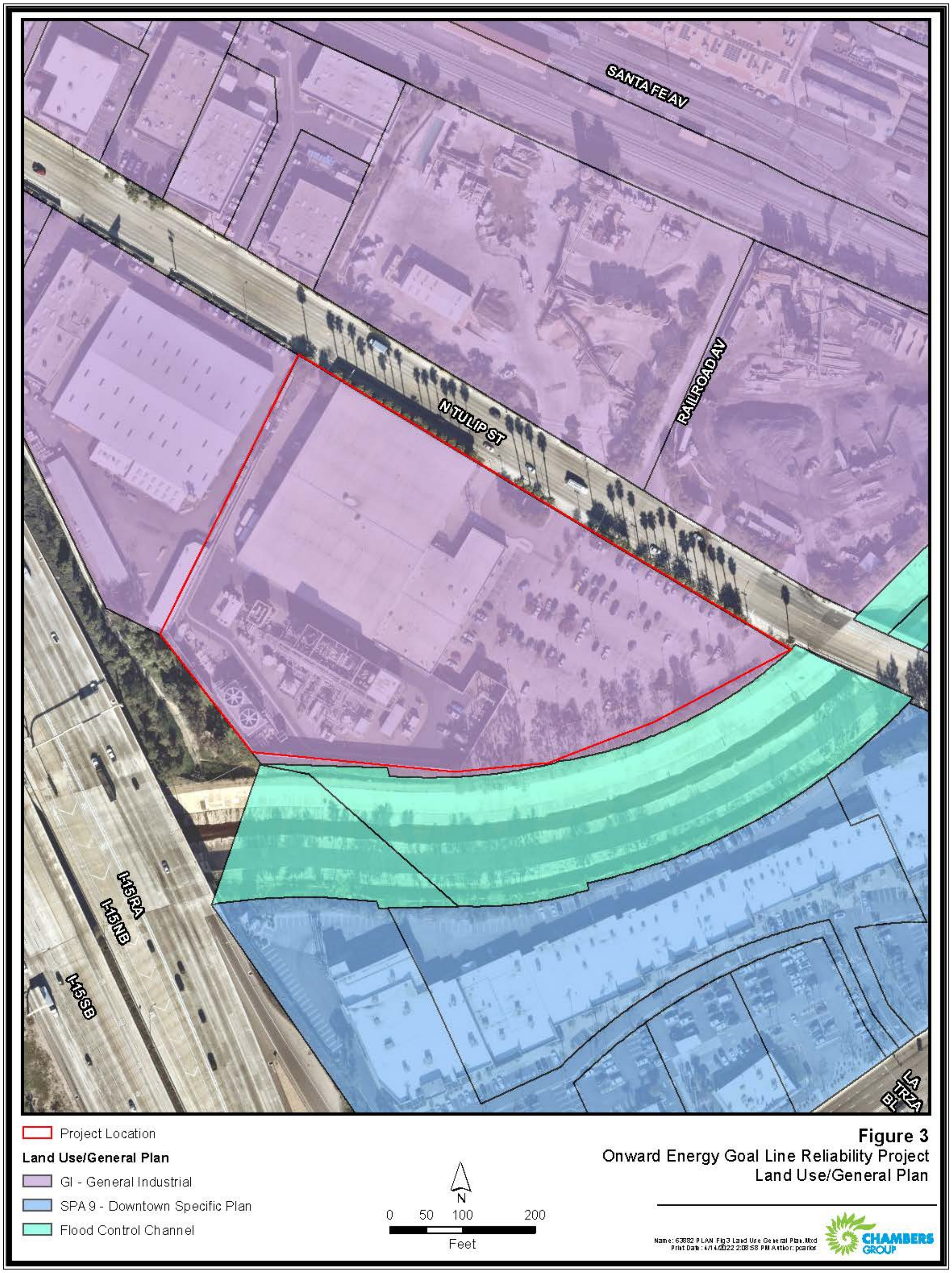


NOT TO SCALE

Figure 2
Goal Line Reliability Project
Site Plan

CHAMBERS GROUP

Figure 3 – Zoning Map



1.4 PROJECT CONSTRUCTION

Project construction will be conducted in two parts[1]:

1. Demolition Phase: demolition of existing facilities

2. Construction Phase: construction of BESS containers

Project construction includes demolition of the existing facility, site preparation and grading, installation of drainage and retention basins, foundations/supports, setting battery enclosures, wiring and electrical system installation, and assembly of the accessory components including inverter transformers and generation step-up transformers. Earth cut and fill are proposed to be balanced within the Project site such that no import of fill material or export of in-situ material is proposed. Due to unknown site conditions beneath the existing infrastructure, this may need to be modified after demolition operations. Up to 30,000 cubic yards of material may need to be imported if site conditions require mitigation.

Further, it is anticipated that approximately 5,000 cubic yards of surfacing (asphalt and/or open graded crushed rock aggregate) and trench fill material will be required.

Raw materials required for construction include gravel for roads and pads; concrete, sand, and cement for foundations; and water for concrete, dust control, and erosion controls. Table 1-2 provides anticipated construction workforce and examples of typical heavy equipment that may be used during Project construction activities.

Table 1-2. Construction Workforce and Equipment Required for a Typical Battery Storage Facility

Construction Activity	Workforce	Typical Construction Equipment *
Demolition	12	Dozer, bobcat, dump truck

[1] An earlier version of the Project contemplated a second phase, capable of delivering up to an additional 400 MWh of stored energy. As the Project moved through design, it was determined that implementation of this second phase was not feasible. The primary difference between the Project that is currently defined, and the prior iteration is that BESS containers will not be stacked and therefore fewer will be located within the site. The Project's footprint is materially the same. Much of the analysis contained herein is substantially similar to that of the current Project, however analyses specific to air quality and noise was performed using the number of containers specific to the larger Project and additional construction phasing. This represents an assessment of impacts that is necessarily greater than the Project, as currently defined. Therefore, the analysis contained herein is intended to be an incredibly conservative impact assessment and an overestimation of impacts compared to the proposed Project.

Construction Activity	Workforce	Typical Construction Equipment *
Foundations	30	Dozer, grader, excavator or drill rig, crane, concrete pump trucks, concrete trucks, pickup trucks with trailers, all terrain forklifts, water trucks, dump trucks, compactors, generators, welders
Fence Construction	10	Forklift, backhoe, pickup trucks
Roads	7	Dozer, grader, front end loaders, compactor, roller, pickup trucks, water trucks, dump trucks, compactors, scrapers
Battery Placement	20	Crane, forklift, pickup trucks
Laborers	50	Pickup trucks
Owner Representatives	6	Pickup trucks
Battery Supplier	40	Pickup trucks
Total Number of Workers:	**175**	

* Equipment primarily runs on diesel fuel

The sequence of Project construction activities for each phase would generally occur as follows, and will be repeated for Phase 1 and Phase 2:

1. Installation of erosion control best management practices (BMPs)
2. Demolition of existing facility
3. Equipment staging and mobilization
4. Site preparation and mass grading and compaction
5. Trenching for electrical cables, wires, and conduits
6. Install below-ground conduit banks and conduit and backfill of trenching
7. Earthwork Preparation of equipment foundations
8. Pour-in-place concrete footings, pad foundations, and/or piers and install driven pilings
9. Foundation backfill and site compaction (as necessary)
10. Install PCS, power distribution systems, BESS, and pad-mounted transformers
11. Pull cables and connect equipment
12. Install above-ground utilities
13. Placement of finished surface material
14. Install safety features, permanent fencing, and security lighting
15. Commissioning
16. Removal of BMPs

The approximately 10 acre-feet of water required during construction is expected to be provided by municipal sources through a temporary on-site hydrant meter.

1.5 PROJECT SCHEDULE

The proposed construction schedule includes approximately 6 months for demolition and 15 months for Phase 1 construction. Phase 2 construction will follow Phase 1 at a yet to be determined time. This duration is required to conduct grading activities, install facility equipment, and interconnect to the transmission infrastructure. Additional offsite infrastructure upgrades to existing offsite facilities may be required with Phase 2. Seasonal constraints are not anticipated to preclude construction from occurring in accordance with this schedule (Table 1-3).

Table 1-3. Construction Schedule

Approximate Duration	Construction Activity
6 months	Demolition of existing facilities slated for Phase 1 activities
Up to 3 months	Commence Phase 1 Grading Activities
12 months	Phase 1 BESS Equipment Construction (trenching, foundations, etc.)
15 months	Installation of Phase 1 Equipment and Commercial Delivery (concurrent with Phase I BESS Equipment Construction)
3 months	Phase 1 Reclamation Complete
TBD	Phase 2 demolition and construction

1.6 OPERATIONS AND MAINTENANCE

The Project will operate 24 hours per day/seven days per week. It will be operated remotely, with no new buildings or parking areas. It is estimated that maintenance will include two to four staff performing maintenance visits weekly and as needed.

In addition to regularly scheduled maintenance and as part of Project operations, augmentation of batteries and battery enclosures will be required. Depending on technology selection, augmentation could include replacement of batteries within enclosures and/or the phased installation of additional BESS enclosures throughout the life of the Project, beyond what is needed to be installed during the "beginning of life" up to the permitted footprint of the Project. In order to fully analyze potential impacts from the Project, all possible battery enclosures that would be constructed and operated through the life of the Project have been included in Projects planning and impact assessments.