SANTA CLARA COUNTY, CALIFORNIA

STEVENS CREEK QUARRY

RECLAMATION PLAN AMENDMENT

CA MINE ID 91-43-0007

DECEMBER | 2020

Lead Agency:
Santa Clara County Department of Planning and Development

Prepared for:
Stevens Creek Quarry, Inc.

Preparer:
Benchmark Resources

BENCHMARK RESOURCES

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Lead Agency:
Santa Clara County Department of Planning and Development
70 West Hedding Street, East Wing, 7th Floor, San Jose, CA 95110

Prepared for:
Stevens Creek Quarry, Inc.
12100 Stevens Canyon Road, Cupertino, CA 95014

Preparer:
Benchmark Resources
2515 East Bidwell Street, Folsom, CA 95630

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1. SUMMARY

The following subsections provide an overview of the site and reclamation plan. Appendix A, "Index to Required Content," provides the location in this document for specific requirements, practices, and standards for reclamation plans.

1.1 Purpose and Objectives

The reclamation plan for the Stevens Creek Quarry (SCQ; site) has been prepared in accordance with the requirements of the Surface Mine and Reclamation Act, found in California Public Resources Code (PRC) Section 2710 et seq., Title 14 of California Code of Regulations (CCR) Section 3500 et seq., and Santa Clara County's (County; the lead agency) implementing ordinance (Santa Clara County Surface Mining Ordinance Sections 2.10.040 and 4.10.370). The purpose of this amendment is to update the reclamation responsibilities based on the expansion of the quarry and end use requiring the importation of fill.

The reclamation plan includes actions designed to meet the objectives for implementing physical reclamation of surfaces disturbed by mining and other associated activities. These physical reclamation treatments are intended to:

- Provide for long-term stability of slopes.
- Prevent wind and water erosion by stabilizing the soil surface through proper grading and drainage.
- Implement a revegetation program designed to establish self-sustaining vegetation cover.
- Reclaim the parcels to an open space condition suitable for future development as allowed under the County Zoning Ordinance at reclamation.

1.2 Site Background and Existing Use

Mining activity has been continuous at the site since the 1940s. The existing site is comprised of 5 assessor parcels, but for convenience has historically been referred to as Parcel A (comprised of 2 assessor parcels), and Parcel B (comprised of three assessor parcels). The County granted SCQ a use permit for Parcel A (Use Permit) in January 1984 (modified September 10, 1996) and granted SCQ continued use of Parcel A for 20 years in 1996. Mining of Parcel B is subject to vested rights. A reclamation plan was approved for Parcels A and B in 1983. In 2009, a reclamation plan amendment modifying the reclamation boundary, allowing partial backfill of Parcel B, and amending the revegetation palette was approved by the County. Since 2009, interim phase mining slopes have exhibited signs of instability that could fail before final buttressing when backfill occurs.

The existing quarry site boundary occupies an area of approximately 170 acres. Operations at SCQ currently consist of excavation/extraction of aggregate resources (i.e., rock and gravel), processing (crushing and screening) of aggregate resources, materials recycling, material loading and weighing, and material hauling.

1.3 Reclamation

The site will be reclaimed to an open space condition suitable for future development as allowed under the County Zoning Ordinance at reclamation. After mining is completed, all temporary structures and mining and processing equipment will be removed, finished slopes graded and engineered where necessary, and revegetation of the entire quarry site performed.

2. SITE DESCRIPTION

The following sections provide general site details such as contact information for the mine owner and operator; evidence of landowner notification of reclamation; reclamation responsibility; and site location, size, site features, and land uses.

2.1 Contact Information

Owner of Property Name: Stevens Creek Quarry, Inc.
Owner of Mineral Rights: Stevens Creek Quarry, Inc.
Address: 12100 Stevens Canyon Road**,** Cupertino, California 95014
Telephone: (408) 253-2512
Parcels: 351-18-048 (66.3 acres [ac]), 351-10-044 (41.9 ac), 351-10-040 (4.4 ac), 351-10-019 (40 ac)

Owner of Leased Property Name: Hanson Permanente Cement, Incorporated
Owner of Leased Property Mineral Rights: Hanson Permanente Cement, Incorporated
Street Address or PO Box: 24001 Stevens Creek Boulevard
City, State, Zip Code: Cupertino, California 95014
Telephone Number: (408) 253-2512
Parcels: small portions of 351-10-017 (40 ac) and 351-10-039 (35.6 ac)

2.2 Operator

Mine Operator: Stevens Creek Quarry, Inc.
Address: 12100 Stevens Canyon Road**,** Cupertino, California 95014
Telephone: (408) 253-2512
Contact: Jason Voss
E-mail: jvoss@scqinc.com

2.3 Reclamation Responsibility

A statement for responsibility to complete reclamation in accordance with this plan is provided by the current operator in Appendix B, "Statement of Responsibility."

2.4 Notification of Landowner

Signed landowner notification forms are included in Appendix C, "Notification of Landowners & License Agreement," providing evidence that all landowners have been notified of the proposed use.

2.5 Location, Size, and Legal Description

Stevens Creek Quarry is located approximately 15 miles south of San Jose, California (see Figure 1, "Regional Location," and Figure 2, "Site Location") at the southwestern limits of Santa Clara County. The parcels and their acreages that would be subject to mining related surface disturbance and reclamation are provided below.

The location is also identified as follows:

- **U.S. Geological Survey Township and Range:** Sections 21 and 28, Township 7 South, Range 2 West, Mount Diablo Base and Meridian
- **Latitude and Longitude:** 37.296181° and -122.082135°, at site entrance.

Table 1, "Parcel Acreage and Ownership," provides each parcel within the project boundary, its local jurisdiction, acreage, and ownership.

TABLE 1
PARCEL ACREAGE AND OWNERSHIP

Parcel Number	Jurisdiction	Approximate Acreage		Ownership
		Parcel	*Within Reclamation Plan Boundary*	
351-10-017	City of Cupertino	40	4	Heidelberg Cement, Inc.
351-10-019	Santa Clara County	40	40	Stevens Creek Quarry, Inc.
351-10-039	City of Cupertino	35.5	7	Heidelberg Cement, Inc.
351-10-040	City of Cupertino	4.4	3	Stevens Creek Quarry, Inc.
351-10-044	Santa Clara County	41.9	42	Stevens Creek Quarry, Inc.
351-11-001	Santa Clara County	503.8	3	Heidelberg Cement, Inc.
351-18-048	Santa Clara County	66.3	48	Stevens Creek Quarry, Inc.

The legal description of the property under Stevens Creek Quarry ownership and County parcel maps for the entire site are provided in Appendix D, "Grant Deeds, Parcel Map, and Topography."

2.6 Existing and Allowed Land Uses

2.6.1 Land Use Designations

As shown in Table 1 above, the majority of the site is located within the unincorporated portion of the County. A small portion on the eastern side of the site is located within the City of Cupertino (City). Because quarry operations have been under the County's oversight since operations began and because the City lacks a surface mining ordinance necessary to regulate mining operations, the two jurisdictions have agreed that the operation is subject to County approval and regulation.

The *City of Cupertino General Plan* land use map (City of Cupertino 2019) does not assign a land use to the areas of the site within the City. The City land use map notes, "Land use densities for lands located outside the urban service area shall be consistent with residential densities established by the *Santa Clara County General Plan*." As shown on Figure 3, "Zoning," the City zoning district assigned to the site and neighboring properties is Residential Hillside (RHS). Although a quarry is not a permitted or conditionally permitted use in the RHS district, the City previously waived SMARA jurisdiction over the portion of the site (an area on the east side of Parcel B owned by Hanson Permanente Cement via a Memorandum of Understanding with the County [August 2008]). Thus, this small area of the site is not considered a zoning conflict.

The *Santa Clara County General Plan, 1995-2010* (General Plan) (Santa Clara County 1994), classifies the site as Hillsides (see Figure 4, "Land Use Designations"). The General Plan describes this designation as follows:

R-LU 17: These lands also contain such important resources as grazing lands, mineral deposits, forests, wildlife habitat, rare or locally unique plant and animal communities, historic and archeological sites, and recreational and scenic areas of regional importance, which serve to define the setting for the urbanized portions of Santa Clara County. Given the importance of these lands to the county's overall quality of life, allowable uses shall be consistent with the conservation and wise use of these resources and levels of development shall be limited to avoid increased demand for public services and facilities.

R-LU 18: All allowable uses must be consistent with the basic intent of the 'Hillside' designation. The range of allowable uses shall be limited to:

- *a. agriculture and grazing;*
- *b. mineral extraction;*
- *c. parks and low-density recreational uses and facilities;*
- *d. land in its natural state;*
- *e. wildlife refuges;*
- *f. very low density residential development; and*
- *g. commercial, industrial, or institutional uses, which by their nature*
  - *i. require remote, rural settings; or*
  - *ii. which support the recreational or productive use, study or appreciation of the natural environment.*

As shown on Figure 3, those areas of the site within the County have a zoning designation of HS-d1-sr. The Santa Clara County Zoning Ordinance provides, "Permitted uses include agriculture and grazing, very low-density residential use, low density, low intensity recreation, mineral and other resource extraction, and land in its natural state. Low-intensity commercial, industrial, and institutional uses may also be allowed if they require a remote, rural setting and are sized to primarily serve the rural residents or community, or if they support the recreational or productive use, study, appreciation, or enhancement of the natural environment."

2.6.2 Existing Entitlements

The original reclamation plan for Stevens Creek Quarry was approved by the County on December 6, 1983. It covered both parcels: Parcel A (subject to a use permit) and Parcel B (subject to vested rights). The Parcel A use permit was approved by the County Board of Supervisors on September 10, 1996. A January 2009 reclamation plan amendment corrected minor discrepancies between actual and planned activities (i.e., minor boundary adjustment, updated mine and reclamation maps, and update revegetation planting palette).

2.7 Exiting Site Conditions and Features

2.7.1 Existing Site Operations

As shown on Figure 5, "Existing Conditions Aerial Photograph," and Sheet 1, "Existing Conditions Aerial Photograph," the site consists of an active quarry; materials stockpiles; a plant for processing aggregate and recycle; a scale; equipment, fuel storage, maintenance, and storage building, constructed drainage ditches and stormwater containment, and access roads. In addition, a gated (locked) entrance at the northeast corner of Parcel A is used by the City of Cupertino for access to compost facilities that are part of a City program. A description of mining activities is provided in Section 3, "Mining," below. Surrounding active mining and processing operations is open space.

2.7.2 Surrounding Land Uses

The project site is surrounded by undeveloped open space, low-density residential development, mining, and Stevens Creek Reservoir. Table 2, "Surrounding Land Uses," provides a summary of the surrounding land uses closest to the project site. Figure 5 and Sheet 1 shows surrounding land uses.

TABLE 2
SURROUNDING LAND USES

Direction	Land Uses
North	Open space, mining, and cement plant
West	Open space
South	Stevens Creek Reservoir, low-density residential
East	Open space, Sunnyvale Rod & Gun Club

2.7.3 Utilities and Access

Locations of utility features, roads, and other necessary site infrastructure within the vicinity of the site are shown in Figure 5 and Sheet 1. The following utilities are necessary for operation and are available at the site:

- **Power:** Line power and diesel generators
- **Water:** Supplied from stormwater stored in ponds and settling basins
- **Sewage:** Residences on septic, portable facilities are provided throughout the site for personnel.

Three driveways (as shown in Figure 5 and Sheet 1) currently provide vehicular access to Parcel A from Stevens Canyon Road. The driveways are described in the list below:

- the main entrance near the southeast corner of Parcel A, used for ingress only;
- an exit-only driveway located about 180 feet northeast of the entrance; and
- a third driveway at roughly the midpoint of the site's frontage on Stevens Canyon Road, used infrequently by trucks that have already been weighed.

A gated (locked) entrance at the northeast corner of Parcel A is used by the City of Cupertino for access to compost facilities that are part of a City program.

2.7.4 Soils

Soils units identified on the site are shown on Figure 6, "Soils." The soils boundaries are approximate and based on the National Resources Conservation Service (NRCS) Web Soil Survey. The following soil types are included within the site boundary:

- Pits, mine
- Merbeth-Literr complex, 30-65 percent slopes
- Mouser-Maymen complex, 30-75 percent slopes
- Katykat-Sanikara complex, 8-30 percent slopes
- Footpath-Mouser complex, 50-75 percent slopes
- Sanikara-Footpath complex, 30-75 percent slopes

2.7.5 Geology

Site Geology

Franciscan-aged greenstone (metabasalt) is the primary rock type mined in the pit. A small volume of Franciscan-aged limestone and graywacke (Calera Limestone—Sliter and McGann, 1992; Walker, 1950) have been mined in the northeast corner of the pit (See Figure 7, "Geology"). Field observations indicate that the majority of the rocks in the pit are sheared metamorphosed mafic volcanics, with occasional metamorphosed pillow basalts found along the upper part of the west side of the pit. The north and west sides of the pit are separated by a NW-SE trending shear zone that is 50 to 100 feet wide (Rogers and Armstrong, 1973, and Sorg and McLaughlin, 1975).

All rocks in the pit are fractured/jointed/sheared to varying levels. The rocks underwent multiple stages of deformation/shearing during subduction and later tectonic events. Localized shearing also occurred during development of the Berrocal fault. Field observations indicate that rocks within the pit can be separated into three zones. These zones consist of two linear greenstone cores and a limestone (sedimentary Franciscan) unit. They are separated from each other by high dip shear zones. Both the shear zones and the rock cores appear to trend southeast-northwest at an oblique angle to the northerly trending Berrocal fault. These units are part of the Franciscan mélange (Raymond, 1984). Even though they appear to be separate units at quarry scale, the rock cores and shear zones are not regional in scale.

Fracturing within the greenstone cores is relatively widely spaced, and the unfractured greenstone is quite hard. When the cores are mined, the larger greenstone blocks are broken up with a concrete breaker (these rocks were blasted in the past). Fracture spacing, block size, and global rock competence all decrease away from the core to the degree that the rock can be ripped. The shear between the two greenstone zones appears to be combination of serpentine, clay, and highly sheared greenstone.

The upper 2 to 20 feet consists of a reddish-brown residual soil. This overlies moderately to highly weathered bedrock (a 50 to 90 percent rock/soil mixture) that can extend another 5 to 20 feet. Below this is slightly weathered bedrock. This has weathered brown but contains no observable soil. It is more fractured than the underlying unweathered bedrock. Overall weathering and fracturing (with respect to gross rock competence) decreases with depth. Based on color changes and failure mechanisms, the weathered zone extends 80 to 100 feet below the ground surface.

A small area of Franciscan limestones and sedimentary units is located at the northeast corner of the pit (Photo 9). This unit appears to be the southern continuation of a limestone trend on the Kaiser-Permanente quarry. A shear zone separates greenstone from limestone units. The shear zone is 50 to 80 feet wide. Shear indicators were not visible. The Berrocal fault marks the eastern boundary of this area. Like the greenstones, the limestones and sedimentary units are strongly fractured, and it appears that fracturing increases adjacent to the Berrocal fault. Sandstone units at the northeast corner of the quarry (adjacent to the Berrocal fault) showed indications of mineralization while adjacent clays (not the shear zone clays) were moist. No free groundwater was encountered. The moist zone was about 100 feet in diameter and confined to the clays along the eastern border of the pit.

Parcel B Western Slope Failure

The northern portion of the east-facing western slope on Parcel B abuts the active mining area along its western side, whereas the central and southern parts of the western slope are situated along the

west side of the main staging/processing and jaw crusher areas, respectively. The northern portion of the western slope opposite the active mining area has experienced surficial slumping and failure of the Franciscan Complex greenstone bedrock nearly along the entire height of the mined slope. The central and southern sections of the western slope have been covered with fill stockpiles that obscured the greenstone bedrock and appear to have experienced surficial slumping and slope movement. A comprehensive discussion of the slope failure is provided in Appendix E, "Slope Stability Analyses."

2.7.6 Biological Resources

Appendix F, "Biological Constraints Report," includes a memo from WRA, Inc. providing a constraints assessment of special-status species and habitat communities with the potential to occur within or near the project site. Appendix G, "Approved Jurisdictional Determination," includes an analysis of potentially regulated waters of the United States identified within the site, per a survey by LSA in 2017.

Habitat Communities

The project site is mostly disturbed by mining. The outer edges of the site support five natural vegetation communities including annual grassland, California bay forest, oak woodland, chaparral, cattail marsh, and open water. The following provides a description of each vegetation community.

- **Annual Grasslands**—dominated by foxtail chess (Bromus madritensis) with wild oats (*Avena fatua*), grassy tarweed (*Madia gracilis*), yellow starthistle (*Centaurea solstitialis*) and many other grasses and herbs present in smaller numbers. Small areas of ruderal vegetation and barren or disturbed areas are included in this category. This community is located in highly disturbed or managed areas within the site.
- **California Bay forest**—dominated by California bay (*Umbellularia californica*) intermixed with big-leaf maple (*Acer macrophyllum*), coast live oak (*Quercus agrifolia*), and western sycamore *(Platanus racemosa*). Understory is typically composed of California wood fern (*Dryopteris arguta*), California blackberry (Rubus ursinus), and poison oak (*Toxicodendron diversilobum*). This community is primarily located on north and east facing slopes in the southern half of the site, typically around ponds and creeks.
- **Oak Woodlands**—dominated by Coast live oak, blue oak (*Quercus douglasii*), and leatheroak (*Quercus durata*) with an understory of annual grasses, black mustard (*Brassica nigra*), and/or poison oak. This community is typically located on ridgetops or the upper portions of steep slopes within the site.
- **Chaparral**—co-dominated by California sagebrush (*Artemisia californica*) and coyote brush (*Baccharis pilularis*). Poison oak and foxtail chess are also present in smaller numbers. This community is primarily located on steep south and west facing slopes and is the most common natural community in the site.
- **Cattail Marsh**—dominated by cattail species (Typha sp.), but narrow-leaved willow saplings (*Salix exigua*) and rabbitsfoot grass (*Polypogon monspeliensis*) are also present. Cattail marsh occurs along the north and west edges of the westernmost pond in the site.
- **Open Water**—aquatic open water features within the site include a series of ponds following the historic path of the unnamed intermittent stream, starting in the west and extending generally southeast through the review area. A total of seven man-made ponds, which were used as settling ponds for the mining operation, occur along this drainage. Based on aerial

photo review all of the ponds have been located at the site for years and in most cases for decades.

Special Status Plant Species

A total of 81 special-status plant species have been documented in the Cupertino and eight surrounding USGS 7.5 minute quadrangles. Appendix F describes these species' regulatory status, habitat requirements, and potential to occur within the site. Of the species documented in the vicinity, 77 are unlikely or have no potential to occur within the site. The following four species have a potential to occur onsite:

- Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*) CRPR 4.3. Moderate Potential
- Western leatherwood (*Dirca occidentalis*), CRPR 1B. High Potential
- Arcuate bush mallow (*Malacothamnus arcuatus*) 1B.2. Moderate Potential
- White-flowered rein orchid (*Piperia candida*) CRPR 1B. Moderate Potential

Special Status Wildlife Species

A total of 53 special-status wildlife species have been documented in the Cupertino and eight surrounding USGS 7.5 minute quadrangles. Appendix F describes these species' regulatory status, habitat requirements, and potential to occur within the site. Of the species documented in the vicinity, 44 are unlikely or have no potential to occur within the site. The following nine special status wildlife species have a potential to occur onsite:

- Pallid bat (*Antrozous pallidus*). CDFW Species of Special Concern, WBWG High Priority. Moderate Potential
- Hoary bat (*Lasiurus cinereus*), WBWG Medium Priority. Moderate Potential
- San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), CDFW Species of Special Concern. High Potential
- (Brewster's) Yellow warbler (*Setophaga petechia brewsteri*), CDFW Species of Special Concern. Moderate Potential
- Western pond turtle (*Actinemys marmorata*), CDFW Species of Special Concern. Moderate Potential
- Santa Cruz black salamander (*Aneides flavipunctatus niger*), CDFW Species of Special Concern. Moderate Potential
- California giant salamander (*Dicamptodon ensatus*). CDFW Species of Special Concern. High Potential
- California red-legged frog (*Rana draytonii*), Federal Threatened Species, CDFW Species of Special Concern. Moderate Potential
- Red-bellied newt (*Taricha rivularis*). CDFW Species of Special Concern

Aquatic Features

A total of 6.94 acres (ac) of potential jurisdictional waters were mapped in the site area, consisting of approximately 0.36 ac of potential wetlands and 6.58 ac of non-wetland waters. Areas potentially meeting United States Army Corp of Engineers criteria for wetlands in the review area include four adjacent wetlands: three along the margins of the settling ponds and one along Montebello Creek and an isolated wetland at the edge of the equipment staging area. Potential non-wetland waters in the

review area include: seven settling ponds, the channels of three natural drainages, and three manipulated drainages. Potential jurisdictional waters are summarized in Table 3, "Summary of Potential Jurisdictional Waters," below and discussed in detail in Appendix G.

TABLE 3
SUMMARY OF POTENTIALLY JURISDICTIONAL WATERS

Waters Type	Acreage
WETLANDS	
Settling Ponds	0.32
Natural drainages	0.01
Isolated Depression	0.03
NON-WETLAND WATERS	
Settling Ponds	5.92
Natural Drainages	0.59
Manipulated Drainages	6.58

2.7.7 Hydrology

Surface Waters

The Stevens Creek Quarry is located within the Stevens Creek watershed, which is a 38–square–mile drainage basin with its headwaters high in the Santa Cruz Mountains. The Stevens Creek Reservoir lies in the central and lower portions of the watershed and was constructed in 1935 for the purpose of storing winter runoff for the recharge of the Santa Clara Groundwater Basin during the summer months. The reservoir dam is located southwest of the City, at the point where Stevens Creek emerges from a deep canyon between Monte Bello Ridge and Table Mountain. Swiss Creek, the largest tributary of Stevens Creek, enters the reservoir from the west. The quarry is located immediately west of Stevens Creek Reservoir. Rattlesnake Creek, Swiss Creek, and an unnamed tributary cross the site.

Drainage and Stormwater Management

Surface drainage at the facility generally flows southeast towards Stevens Creek Reservoir. Stormwater is conveyed through culverts, french drains, concrete swales, and drainage ditches to sediment traps, sediment ponds, and an onsite stormwater storage tank. The facility is divided into seven (7) drainage areas as shown on Figures 8(a&b), "Stormwater Containment and Management." These figures show the facility layout, including the general site topography, storm drainage system, drainage inlets, and discharge locations within their respective drainage areas. A summary of each drainage area is provided below, and a detailed description can be found in Appendix H, "Stormwater Pollution Prevention Plan."

Drainage Area No. 1 is approximately 16 acres and includes a portion of the Parcel B processing plant area and material stockpiles (see Figure 8b). Drainage Area No. 1 is sloped to drain toward a sediment pond with drainage ditches, a concrete swale, and culverts conveying stormwater flows. Water in this sediment pond is retained by a riser and conveyed through a culvert to outfall on Rattlesnake Creek.

Drainage Area No. 2 approximately 43 acres and receives stormwater from the eastern portion of Parcel B and central portion of Parcel A. This area includes the staging area for RVT, fueling area, and fueling tanks. Water is conveyed through drainage ditches, concrete swales, culverts, and

sheet flow to one of two sediment traps or to a metal stormwater storage tank. Water from the sediment traps are conveyed through a culvert or weir to an outfall which discharges to Swiss Creek.

Drainage Area No. 3 includes the office buildings, scale house, scale, recycle plant, and quarry maintenance storage. The drainage area is approximately 9 acres and slopes southwest towards Swiss Creek. Stormwater in this area is conveyed through a French drain into sediment trap, then conveyed through a drainage ditch or culvert into another sediment trap where it discharges to an outfall before reaching Swiss Creek.

Drainage Area No. 4 is approximately 11.2 acres and comprises the eastern portion of Parcel A. Runoff from the topsoil plant is contained by on-site berms adjacent to Stevens Canyon Road. Stormwater is collected in a sediment pond, drainage ditches, concrete lined swales, french drains, swales with check dams, culverts, drop inlets, an underground stormwater storage tank by the Office, and an open concrete drainage box with check dams. Stormwater is eventually conveyed into a sediment trap and discharged through a culvert to outfall before reaching Swiss Creek.

Drainage Area No. 5 is approximately 21.4 -acres. This area was recently regraded to direct all stormwater flow towards drainage area 7.

Drainage Area No. 6 is approximately 4.7 acres and collects runoff from the roads on the southern portion of Parcel B. Runoff from this area is directed into drainage ditches, swales, drop inlets, and culverts, a concrete swale, and eventually into a sediment trap, which discharges through a culvert into an outfall before reaching Rattlesnake Creek.

Drainage Area No. 7 is approximately 78 acres. This drainage area encompasses the active mining and changes frequently due to this activity. The area contains one sediment trap, which collects surface runoff from the access roads on the north hillside and the Radio Tower. Flow from this sediment trap is conveyed into the pit pond. The majority of surface runoff from the excavated hillsides sheet flows into the pit pond. Surface runoff from the access roads sheet flows into a drainage ditch which eventually goes into the pit pond. The pit pond does not have any outfall structures.

The National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit) requires BMPs to be implemented to direct off-site and nonindustrial run-on away from industrial areas and erodible surfaces. Berms, drainage ditches, drop inlets, sediment traps, silt fences, check dams, and straw wattles will be implemented to meet this requirement. These BMPs will be located along the quarry roads and throughout the facility as necessary. Figures showing off-site drainage areas and associated stormwater conveyance facilities or BMPs are provided in Appendix H.

Groundwater

There are a series of houses on the hill south of the quarry (Monte Bello Ridge). The water supply to some of those houses is provided by wells. The bottom of some of the eastern wells extends below the elevation of the quarry floor while the bottom of wells higher in the hills is above the elevation of the quarry floor. The quarry is separated from these houses (and wells) by a Swiss Creek and an ephemeral drainage in Rattlesnake Canyon. Rattlesnake Canyon acts as a hydrologic barrier between the quarry and the hill south of the quarry. The elevation of the creek (and the base of the valley)

adjacent to the quarry is between 650 and 690 feet msl. The lowest elevation of the quarry floor is projected to be between 700 and 725 feet msl. When quarrying is finished, the quarry will be filled with approximately 200 feet of fill. Subdrain lines are and will be incorporated into the fill. The quarry is relatively dry, and there is no record of long-term, large water inflows into the quarry or historic need for drainage wells to control water inflows. There is no record of water wells within 1000 feet west, north, or east of the quarry. The Parcel B quarry has been active for more than 40 years, and portions have been excavated to approximately 725-foot elevation. The quarry effectively acts as a drainage pit.

Seepage areas have been observed in the quarry walls, located in the west face near the south end of the quarry and in the middle of the north face. The seeps have produced between 5 and 10 gallons per hour. The flow from these seeps is currently directed into the existing gravity drainage system. There is no indication that drainage wells have been used in or around the quarry. The majority of the quarry walls are covered with fill, and no obvious indications of seepage were seen in those areas. A seasonally dry valley and dry stream above this part of the quarry trend towards the northwest corner of the quarry. The majority of effects on the surrounding groundwater have already occurred. It is likely that bedrock groundwater levels adjacent to the quarry will rise when the quarry is backfilled.

2.8 Pre-SMARA Surfaces

Although the site operated before SMARA was implemented, no pre-SMARA surfaces exist on-site that would be excluded from reclamation under this plan.

3. MINING

The following sections cover mining details and activities related to ensuring mining activities align with the reclamation plan.

3.1 Material Quantity and Type

The primary mineral being mined at the site is Franciscan-aged greenstone (metabasalt) rock for aggregate production. Smaller quantities of Franciscan-aged limestone and graywacke (Calera Limestone) have been extracted from the northeast corner of Parcel B. Approximately 13 million tons of materials (i.e., marketable material and overburden) remain within Parcel B to be mined.

SCQ will maintain existing production and sale levels of two million tons per a year with 30 percent of the material being overburden and fines. The annual two million tons a year includes production and sales from the rock plant (aggregate and sand), recycle plant (concrete and asphalt), topsoil plant, salable products generated from overburden and fines, and imported aggregate material from Lehigh.

3.2 Mining Initiation and Termination Dates

Mining has been ongoing since the 1940s. In consideration of a fluctuating demand for materials based on a fluctuating economy, mining will be complete by December 31, 2050.

3.3 Mining Depth

The quarry floor is planned to have an upper pad with a maximum depth of 600 feet msl and a lower pad with a maximum depth of 550 feet msl.

3.4 Quarry Design and Operations

As shown on Figure 9, "Mine Plan," Figure 10, "Mine Plan Cross Sections," Sheet 2, "Mine Plan," and Sheet 3, "Mine Plan Cross Sections," mining will occur within the central, southern, and eastern portions of Parcel B. Expansion will involve lowering the existing quarry floor approximately 300 feet. The quarry expansion will be developed by continuing to mine new benches to a bottom elevation of between 500-600 feet msl in the central, southern, and eastern portion of Parcel B. The highwall will be developed by stripping and transporting materials to the processing facilities for crushing and stockpiling. Cut slopes are planned to be 1.5H:1V. The quarry floor is planned to have an upper pad with a maximum depth of 600 feet msl and a lower pad with a maximum depth of 550 feet msl. As discussed in section 4 below, the quarry floor will then be backfilled to a maximum elevation between 1,100 and 1,200-feet msl with fill slopes not to exceed 2H:1V overall.

Raw aggregate from the active quarry area is transported via loader or haul truck to the rock plant for primary processing. The material is stockpiled or fed directly into the primary crusher/feeder. The material discharged from the primary crusher is moved along a series of conveyors to the secondary and ancillary processing facilities. Aggregate material is separated by a large vibrating screen that isolates the larger material for reduction in a secondary cone crusher. Smaller material is screened out as base material or conveyed for additional screening and reduction in tertiary crushers. The material is conveyed to finished product screens. The fines are further processed using a dewatering screen along with coarse and fine sand screws. The ultra-fine material is then processed through a plate press. The material is then conveyed to individual stockpiles for shipment. Overburden and fines generated from the mining will be hauled to designated areas and stored temporarily for future reclamation (i.e., for backfilling the pit and creating fill slopes) or undergo further processing and sold as product.

Stevens Creek Quarry, Inc. has a license agreement with the adjacent landowner to extend Parcel B mining east to correct a reclamation boundary encroachment and integrate that correction with other reclamation for the entire parcel (see Appendix C). The reclamation-related grading is limited by a power-line corridor and related structures to a wedge-shaped, 9-acre area.

A 1.5-acre fill area exists on the parcel bordering the western boundary of Parcel B (the same landowner of the parcel on the east side of Parcel B). The landowner has consented that the fill can remain until reclamation. This fill will be removed at reclamation and the area returned to its approximate preexisting topography. The operator will revegetate this area.

3.5 Equipment Storage

Equipment, supplies, and other materials are stored in designated areas. Current storage areas are shown in Figure 5 and Sheet 1.

3.6 Circulation and Parking

As shown on Figure 11, "Internal Circulation, Queuing, and Parking," trucks enter the site from Stevens Canyon Road and immediately turn right towards the soil plant and then circle back towards the office and lower scale house. Trucks turn right past the office and proceed to the north, past the tractor shop, continuing northwest through the site to the recycled or finished aggregate plants and stockpile areas. If trucks are delivering or picking up recycled materials, they will turn right into the recycled plant area. Trucks picking up crushed aggregates products will continue to drive northwest into Parcel B where they

will make a large circle to pick-up finished aggregate product. Trucks will follow the same route to exit the site, stopping at one of two scale location to be weighed and ticketed.

4. RECLAMATION

4.1 Reclamation Plan and Surface Treatment

4.1.1 Subsequent Use and Approach

The site will be reclaimed to an open space condition suitable for future development as allowed under the County Zoning Ordinance for "Hillside" districts at reclamation. The County "Hillside" district allows by right uses such as general agriculture, livestock, agricultural accessory structures and uses, nurseries, consumer recycling facilities, and wineries. A variety of other uses are allowed subject to a use permit. After mining is complete, all temporary structures and mining and processing equipment will be removed, finished slopes will be graded and engineered where necessary, fill will be imported and used to backfill the quarry floor and slopes to reclamation specifications, and revegetation of the entire quarry site will be performed. Final quarry cut slopes will be graded at a 1.5H:1V angle, and fill slopes will be graded at a minimum 2H:1V but generally range between 3H:1V and 5H:1V. Upon reaching design depth, onsite stockpiled and imported fill will be used to elevate the floor of Parcel B from its design depth of 550-600 feet msl to between 1,100 and 1,200 feet msl. A total volume of approximately 11.7 to 20.5 million cubic yards is required to fill the quarry floor to its final design elevation. Approximately 8 million cubic yards of backfill may be generated on-site from the proposed mining described in section 5.1 above. It is anticipated approximately 3.7 to 12.5 million cubic yards of backfill material will be imported fill generated from off-site sources. Existing permanent Parcel A infrastructure, including the office, shop, access road, and trucking facility, will remain. The remaining portion of Parcel A will be decompacted and graded. A mix of hydroseeding or broadcast seeding and container plants will be used to revegetate the site. The plan for reclamation is shown on Figure 12(a&b), "Reclamation Plan," Figure 13, "Reclamation Plan Cross-Sections," Sheet 4, "Reclamation Plan – Option A," Sheet 5, Reclamation Plan – Option B," and Sheet 6, "Reclamation Plan Cross Sections."

4.1.2 Surface to Remain

Paved and unpaved access roads that provide access to the interior of the site will remain for site access, monitoring, security, and fire protection. The office, shop, and trucking facility on Parcel A will also remain.

4.1.3 Impact on Future Mining and Surrounding Properties

Reclamation activities will not physically or economically preclude future access to mineral resources, should additional recovery be pursued in the future. The open space that would be left in place on-site could be removed in the future and would have no impacts on future mining.

As shown in Table 2 above, the dominant surrounding land use is open space, much of which has approved vested mining rights. Reclamation of this site to open space is consistent with this land use and would not impact surrounding lands.

4.1.4 Public Safety Considerations

The quarry is private property and setback from the nearest public roadway by approximately ¾ mile; the second land use of open space will not increase the level of public exposure to the site.

4.2 Soil Salvage and Storage, Amendments, and Preparation

Virtually all surfaces at the quarry were developed prior to SMARA (pre-1976) when soil salvage and stockpiling for reclamation were not commonly practiced. As a result, little, if any, native soil is available. Soil material used for reclamation is from overburden encountered during mining, fines generated during processing, and import of fill. Soil is stored in stockpiles at various locations throughout the site (see Figure 5 and Sheet 1) until needed for use in fill slope reclamation or to assist revegetation in meeting performance standards (see Section 4.3.3, "Revegetation Success Criteria"). Timing of soil use is described in Section 4.7, "Phased Reclamation."

4.2.1 Soil Salvage and Storage

The geologic materials at the Stevens Creek Quarry vary, and areas of nonmarketable material are periodically encountered. This material is designated to be used in construction of final Parcel B fill slopes. These materials are removed from new mining areas within no more than 1 year of when mining is scheduled to occur.

The following actions will be implemented related to soil harvesting, stockpiling, and placement:

- Soil and vegetation removal will not precede mining by more than 1 year and will be kept to a minimum.
- After soil is stripped, it will be hauled and stored in a designated soil stockpile if it cannot be used at that time for concurrent reclamation activities.
- The soil will be compacted as little as possible. If compacting of a portion of the stockpiles is necessary for stability, compacting will occur to minimum extent necessary.
- The soil should be dry if it must be harvested, moved, stored, or worked during mining or reclamation activities.
- Soil stockpile areas will be identified and well-marked.
- Relocation of soil after it is stockpiled will be minimized.
- If soil is stored during the winter rainy season, erosion control measures will be implemented.
- Placement of soil resources for reclamation should:
  - use a small bulldozer or similar equipment to rip and blend the soil materials as necessary.
  - be track walked to stabilize the soil material, and then the surface will be scarified to allow for proper seed germination.
  - remove rocks and plant material in excess of four inches to the extent feasible.

4.2.2 Resoiling

The conditions of this site limit the conventional SMARA regulation approach to soils salvage and redistribution. The revegetation plan therefore provides options for the operator to employ. Existing stockpiles of soil, new topsoil generated during new mined surfaces (if any), and imported fill will be incorporated with the top layer of overburden rock when present to improve soil conditions. However, the majority of quarry surfaces have long been established, and new disturbance areas will be limited, if any. The overburden rock substrate and potential soil materials are characterized as follows:

Overburden Rock: The results of soil analysis indicate that the overburden rock alone is not an ideal substrate for certain plant communities. The U.S. Department of Agriculture classification for the overburden rock is a gravelly sandy loam with a diverse distribution of particle sizes. With this

varied distribution of particle sizes, the susceptibility to consolidation is high. Given its rocky texture and low organic content, the overburden rock would benefit from the addition of topsoil and/or organic amendments. Blending stockpiled overburden rock with topsoil and other materials is a consideration for improving texture and nutrient content.

Native Topsoil: Planned new areas of mining are limited to marginal perimeter at the west boundary of Parcel B, where topsoil salvage and vegetation salvage and chipping may occur, producing little soil for overall site reclamation.

Rock Plant Fines: The rock plant fines material is a by-product of the rock processing activities at the quarry. It has a clay loam texture and contains a substantially greater amount of silt and clay compared to the overburden rock. The rock plant fines material are expected to have virtually no organic matter content. Blending the rock plant fines material with the overburden may improve soil texture conditions.

Imported Soils: SCQ has long imported surplus construction soil that meets site-specific acceptance criteria and will continue to do so under the approved and amended reclamation plan. Sources of this material will continue to be evaluated for contamination and testing for pesticides, salts, and other impediments to plant growth where the materials would be used for final cover. To augment growth media, imported surplus construction soil with higher organic matter content than on-site materials may also be used in revegetation.

Based on investigations of native soils and the planting palette and considering the available and potential materials to develop a planting substrate, the soil preparation depth for areas targeted for scrub planting over the majority of the surfaces is 6 inches. This depth was tested in the test plots and considered suitable to support most shrub and grass species to be seeded.

4.2.3 Soil Amendments

Soil conditions are not likely to limit the establishment of vegetation; stockpiled fill materials have rapidly revegetated voluntarily. Upon completion of quarry operations and before revegetation of soil begins, a soil analysis will be performed. Based on the results of the soil analysis, fertilizer and soil amendments may be used, as recommended, to ensure revegetation success.

If fertilizers and amendments are determined to be necessary, the following actions will be applied to ensure they do not cause contamination of surface or groundwater:

- Manufacturers' directions for use, storage, and disposal of fertilizers will be followed to ensure their safe use.
- Fertilizer will typically be applied once to promote initial seed and container plant establishment for erosion control purposes on areas planned for revegetation.

A storm water pollution prevention plan (SWPPP) will continue to be required during reclamation activities and is required to be updated to provide Best Management Practices (BMPs) for current conditions during reclamation. The SWPPP will include a determination, based on the quantity of fertilizers and amendments determined to be necessary, of whether the potential exists for sufficient pH, dissolved oxygen content, or nitrogen (i.e., nitrate, nitrite, and total nitrogen) and phosphorous loading in receiving waters to require testing for these pollutants as part of water sampling of stormwater discharges.

4.2.4 Criteria for Imported Soil

SCQ will accept imported surplus construction soil to backfill the quarry area. This soil would be subject to site-specific acceptance criteria developed in coordination with regulatory agencies according to the following guidelines:

1. *California Environmental Protection Agency Department of Toxic Substances Control (DTSC) Information Advisory on Clean Imported Fill Material* guidance document (DTSC 2001);
2. Constituents of concern limits established via the RWQCB environmental screening levels and California Human Health Screening Levels (to establish whether the material is considered a "designated waste" under the California Water Code, in which case it would not meet the Quarry's acceptance criteria);
3. Federal and state hazardous and nonhazardous waste criteria; and
4. Background concentration data using DTSC, U.S. Environmental Protection Agency Commercial Regional Screening Levels, and federal Resource Conservation and Recovery Act guidelines.

Acceptance of soil will be determined for each individual source location (e.g., construction project), and all soil imported to the site will be subject to testing and quality controls to ensure it meets the site-specific acceptance criteria. Imported soil is anticipated to be received and unloaded near the processing plant on Parcel B if not directly unloaded in the fill placement area.

4.3 Revegetation

Revegetation will occur on the Parcel B slopes and fill pad and Parcel A overburden and recycled materials stockpile. Parcel A ancillary facility areas, including the office, shop, access road, and trucking facility, will remain and not be revegetated. Revegetation tasks, described below and in the attached *Revegetation Plan Stevens Creek Quarry* (December 2020) (see Appendix I, "Revegetation Plan"), will provide vegetative cover using predominantly native plants for final contours, thus controlling erosion and stabilizing slopes. Revegetation efforts will utilize plant materials capable of self-regeneration without continued dependence on irrigation, soil amendments, or fertilizer. Seeding of the fill slopes with a mixture of grasses, herbaceous plants, and shrubs will provide surface cover and erosion control. Shrub planting areas will be located on mine benches between largely unvegetated highwalls that must remain for slope stability purposes. This Revegetation Plan, included in Appendix I and summarized in the sections below, provides a comprehensive approach for a test plot program, soil treatment and plant installation, maintenance and adaptive management guidelines, and verifiable monitoring standards to achieve the goals and objectives listed above.

4.3.1 Revegetation

Seeding

Contoured surfaces would be amended as necessary and covered with grass, herb, and shrub species via seeding either bulk seed spread with a broadcast seeder, or by hydroseeding at the discretion of the operator. Drainage ditches and roads not to remain will be left bare until the completion of the contouring and slope seeding, at which time roads will be ripped and revegetated. Table 4, "Species for General Seeding," provides a preliminary list of plant species to be used.

TABLE 4
SPECIES FOR GENERAL SEEDING

Scientific Name	Common Name
Artemisia californica	California sagebrush
Baccharis pilularis	coyote brush
Eriogonum fasciculatum	California buckwheat
Salvia leucophylla	purple sage
Salvia mellifera	black sage
Achillea millefolium	yarrow
Artemisia douglasiana	mugwort
Bromus carinatus	California brome
Elymus glaucus	blue wildrye
Eschscholzia californica	California poppy
Heterotheca grandiflora	telegraph weed
Acmispon americanus var. americanus	Spanish clover
Acmispon glaber	deerweed
Lupinus nanus	sky lupine
Melica californica	California melic
Stipa pulchra	purple needlegrass
Poa secunda	one-sided bluegrass
Trifolium willdenovii	tomcat clover

Shrub Planting

Shrubs will be planted as container plants or seeds in the revegetation areas. To the extent feasible, shrubs to be planted will be obtained from seeds collected from the site or from local sources. Shrubs will be planted at approximately 4.5-foot spacing in designated planting areas or at a spacing suitable for the location and species of the plantings. The remaining slopes and benches will be covered with shallower topsoil and/or soil-building materials and seeded with a grass/herb/shrub seed mix, without containerized shrub plantings.

Shrub species in undisturbed adjacent habitats or observed to perform well in previous revegetation areas and test plot results, described in section 4.3.4 below, will be selected for planting. A list of potential shrubs to be planted on site is provided in Table 5, "Potential Shrubs for Planting," below. Species selection and numbers will depend on propagule collection and availability; other similar species may be utilized to meet vegetation cover requirements.

TABLE 5
POTENTIAL SHRUBS FOR PLANTING

Scientific Name	Common Name
Heteromeles arbutifolia	toyon
Rhamnus californica	California coffeeberry
Rhamnus crocea	redberry
Ribes californicum	hillside gooseberry
Ribes malvaceum	chaparral currant

4.3.2 Revegetation Timing and Protection

Seeding shall be conducted during the most favorable period of the year (typically September 1 through December 1) for plant establishment. Container planting should be performed during the winter season and completed by approximately the end of January to improve plant establishment.

Protection measures such as high visibility fencing and screening shall be used where needed to prevent unauthorized vehicle access or wildlife to promote revegetation success. Protection measures shall be maintained until revegetation efforts are successfully completed per the success criteria outline in the section below.

4.3.3 Revegetation Success Criteria

Performance standards will be measured through comparisons of species richness, absolute plant cover, species composition, and the presence of noxious weeds. Acceptable threshold values for each of these parameters are presented in Table 6, "Performance Standards for Revegetation Areas." Performance standards represent anticipated conditions five (5) years after installation. SMARA requirements state that performance standards must be met for two consecutive years without significant human intervention prior to release of financial assurances.

TABLE 6
PERFORMANCE STANDARDS FOR REVEGETATED AREAS

	North and East-Facing Benches		South-Facing Benches		Seeded Areas Shrub/Grassland Mix	
	Shrub	*Herb*	*Shrub*	*Herb*	*Shrub*	*Herb*
Richness *(avg. native species per plot)***	50%	75%	50%	75%	50%	75%
Canopy Cover	15%	20%	15%	20%	15%*	20%*

Notes:
*Performance standards for seeded areas may need to be adjusted to reflect the species mix ultimately selected based on reference sites and test plot results. In particular, the balance between shrub and herbaceous species cover may vary.
**Richness standards will be based on a percentage of natives observed in reference plots. 5-meter (m)-radius d 1m-radius plots for herbs/grasses.

4.3.4 Test Plots

Test plots may be required to determine the suitability of growth media, refine the seed mix, determine appropriate seed mix application rates, and other factors affecting revegetation success. To the extent necessary, 100-foot by 100-foot test plots, as well as control and no seed plot areas, will be established. These plots will be representative of fill areas. The test plots will be maintained and monitored, and tests will be conducted to refine revegetation techniques and seeding rates to meet performance standards. Additional tests will be conducted if the initial tests and active revegetation are not successful.

4.3.5 Weed Abatement

Weed control is necessary to reduce the occurrence of undesirable invasive and noxious species of plants that could interfere with revegetation efforts or increase fire hazards. Weeds are undesired, generally introduced, invasive plants that can compete with revegetation efforts. However, many introduced species occur widely in the region and are common in both the surrounding active quarry and adjacent

natural open space lands. Eradication of all weeds is therefore unachievable; therefore, specific noxious plant species are targeted for control.

For the purposes of site maintenance and monitoring, non-native plants listed in the California Invasive Plant Council (Cal-IPC) Inventory (2020) as highly invasive will be considered invasive weeds subject to control and performance standards. If invasive weeds are found to exceed a combined 10 percent relative cover over all sampled quadrats, weed abatement activities will commence. The following species should be included as subject to this performance standard: yellow star thistle (*Centaurea solstitialis*, annual), black mustard (*Brassica nigra*, annual), stinkwort (*Dittrichia graveolens*, annual), pampas grass (*Cortaderia* spp., perennial), and fennel (*Foeniculum vulgare*, perennial). Some of these species are only listed as moderately invasive by Cal-IPC, but they should be managed promptly because they are currently present in large numbers near the project site and may impede establishment of native cover. Weed control methods may include chemical and mechanical removal techniques depending on the species and number of individuals encountered.

4.3.6 Monitoring and Maintenance

Monitoring

Monitoring must be performed to document revegetation success. Following installation, each revegetation area should be monitored as necessary to determine if reseeding, irrigation, or soil amendments are necessary to demonstrate the performance criteria at the earliest possible time. Revegetation will be monitored annually until the area meets performance standards for two consecutive years without intervention. Revegetation sites shall be identified on a map and monitored to assure that standards are adequately achieved to within a minimum 80 percent confidence level.

Maintenance

Maintenance of revegetated areas, including weed control, will occur as necessary based on monitoring and the evaluation of meeting performance standards. Maintenance of revegetated areas will consist of reseeding unsuccessful revegetation areas to the extent necessary to achieve the performance goals, to limit the extent of noxious weeds, and to repair erosion damage. If revegetation efforts are not successful, the underperforming areas will be re-evaluated to determine measures necessary to improve performance.

4.4 Geotechnical

4.4.1 Quarry Slopes

Quarry slopes will have an overall final grade of 1.5H:1V, as specified on the mine plan. Benches will be approximately 15 feet wide with a highwall of approximately 50 feet. Slope stability analysis supporting the slope design is included as Appendix E.

4.4.2 Fill Slopes

Fill slopes will be constructed to have an overall minimum grade of 2H:1V without benches/highwalls. The majority of the site will have fill slopes ranging between 3H:1V to 5H:1V as shown on Figure 12(a&b) and Sheets 4 - 6.

4.5 Environmental Protection

The following subsections provide a description of environmental protections related to sensitive plant and wildlife habitat, hydrology, and water quality. In addition to these requirements, SMARA Section 2772.1(a)(7)(B) requires that official copies of the reclamation plan amendment include an index showing any permit conditions of approval or binding mitigation measures adopted or certified pursuant to the California Environmental Quality Act (CEQA) that are necessary to comply with SMARA and the County's Surface Mining Ordinance. Those conditions of approval and mitigation measures are included in an Appendix J, "Conditions of Approval," and are considered part of the reclamation compliance requirements.

4.5.1 Water Quality Protections

Surface Water Management

Surface mining and reclamation activities are conducted in a manner that protects on-site and downstream beneficial uses of water. Existing water quality protection measures at the facility are described in the SWPPP (updated regularly to reflect current site conditions) and the spill prevention control and countermeasure plan (SPCCP). The most recent SWPPP and SPCCP are provided in Appendix H and Appendix K, "Spill Prevention Control and Countermeasure Plan.". A summary of the existing drainage areas, stormwater management, and erosion control was provided in section 2.7 above and a detailed discussion is included in Appendix H. The SWPPP and SPCCP will continue to be updated as site development progresses.

Excavations are conducted in a manner to keep adjacent streams, percolation ponds, or water bearing strata free from undesirable obstruction, siltation, contamination, or pollution. Existing settling ponds are maintained to intercept sediment. Settling ponds and other retention devices are maintained to control sediments so that no sediments are deposited in Stevens Creek Reservoir from the site as a result of the surface mining process.

The SWPPP describes stormwater drainage facilities, identifies possible water pollution sources that could affect the quality of stormwater discharged from the facility, and documents BMPs that have been implemented to minimize or prevent discharge of pollutants that may be in stormwater. Measures in the SWPPP to control erosion and sedimentation include:

- diverting surface water away from the stockpiles and tops of cut slopes;
- tarping all topsoil stockpiles during the rainy season;
- installing wattles around the base of topsoil stockpiles, if evidence of erosion exists;
- regrading and compacting areas with deep and wide erosion rills;
- limiting activities during wet weather;
- limiting use of unpaved roads at the secondary entrance on Lower Quarry Floor during the rainy season; and
- monthly visual inspections during reclamation activities.

As part of the terms of its discharge permit from the San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB), the quarry operator regularly monitors water quality of the discharge from the quarry and must submit quarterly monitoring reports to the San Francisco Bay RWQCB. The only discharge from the overall property site occurs at the point where Swiss Creek

leaves the site and flows into a culvert under Stevens Canyon Road that flows into Stevens Creek Reservoir.

Erosion Control Seeding

Prior to final revegetation of fill slopes, a preliminary erosion control seeding stage may be incorporated. The native erosion control seed mix shown in Table 7, "Erosion Control Seed Mix," includes species that have proven successful in other local revegetation and is recommended to provide erosion control and initial establishment of native grasses and herbaceous species as needed in temporarily disturbed areas. Other similar species may be used as necessary to establish vegetative cover.

TABLE 7
EROSION CONTROL SEED MIX

Scientific Name	Common Name
Bromus carinatus	California brome
Elymus glaucus	blue wildrye
Lupinus nanus	sky lupine
Nassella pulchra	purple needlegrass
Plantago erecta	California plantain
Trifolium willdenovii	tomcat clover
Vulpia microstachys	three weeks fescue

Groundwater

Water for site operations is currently obtained from the on-site settling basins, and groundwater is not used. Moreover, implementation of the reclamation plan would not result in a substantial net change in water use, although some additional water would be necessary for dust control during grading of the area and to establish vegetation on the reclaimed slopes. As a result, the project would not substantially deplete groundwater supplies.

No creeks or other natural drainages are located within mining areas. Upon completion of mining and reclamation, runoff from Parcel B would be routed to rock lined channels, detention basin(s), or other similar control measures for fines settlement prior to discharge via an existing outfall. Therefore, the project would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.

4.5.2 Sensitive Species and Habitat

As provided in section 4 above, the site will be reclaimed to an open space condition. It is anticipated proposed revegetation will facilitate the creation of wildlife habitat, but no specific grading or revegetation measures are planned to develop or enhance wildlife habitat as part of site reclamation. No reclamation actions are proposed that would prohibit or interfere with the sites use by wildlife species.

Wildlife Habitat Protection Measures

As described in Section 2.7.5 above, the site contains potentially suitable biological habitat for several special-status wildlife and bird species. In addition to special-status species, nests of nearly all other native birds are protected by the Migratory Bird Treaty Act and California Fish and Game Code. To avoid potential impacts to these special status species the following measures would be implemented in consultation with a qualified biologist:

Preconstruction Surveys: Ground disturbance into undisturbed areas and vegetation (tree and shrub) removal would be planned to avoid the various habitats and/or breeding season for most species. If such clearing would occur during those seasons, preconstruction surveys will be performed.

Use of Buffers to Avoid Sensitive Habitats or Nests: If preconstruction surveys determine that habitat or nests are found close enough to the land clearing and tree removal area, the biologist will determine a construction-free buffer zone to be established around the area to prevent potential impact.

State and/or Federal Permitting: If avoidance is not feasible the operator will be required to obtain the appropriate permits from state and/or federal agencies prior to disturbance.

Species Protection

Listed species shall be conserved or mitigated as prescribed by the federal and California Endangered Species Acts.

4.6 Removal and Closure Activities

The following subsections describe those project components that will be removed or remain and their related reclamation activities.

4.6.1 Waste Disposal

Any remaining mine waste at closure will be disposed of consistent with Title 27, Chapter 7, Article 1 of the CCR (formerly codified as CCR Title 23, Chapter 15, Article 7). No waste from mining will remain on-site. The SWPPP will ensure all other waste is disposed of in accordance with state and local health and safety ordinances.

4.6.2 Structure and Equipment Removal

The existing developed surfaces on Parcel A would remain following reclamation, including the machine shop, quarry office building, and Rich Voss trucking facility. All other structures and equipment will be removed. Any compacted surface will be decompacted prior to revegetation.

4.6.3 Roads

Developed surfaces, perimeter maintenance roads, and access roads will remain for subsequent land uses as shown on Figure 12(a&b) and Sheets 4 and 5. All other compacted surfaces will be stripped of roadbase (if any), decompacted, and revegetated.

4.6.4 Closure of Openings

Drill holes, water wells, monitoring wells will be completed or abandoned in accordance with current laws, unless demonstrated necessary for the proposed end use.

4.7 Phased Reclamation

Fill will be placed in Parcel B (see Figures 12(a&b) and 13) and cannot be placed until mining is complete. Revegetation of Parcel B can begin after all fill is placed and graded.

No fill or topsoil is necessary in Parcel A, and revegetation of the northernmost portion of the northeast hillside has begun. The remaining portion of the northeast hillside will be revegetated after the material stockpile has been removed, which will occur after mining is complete.

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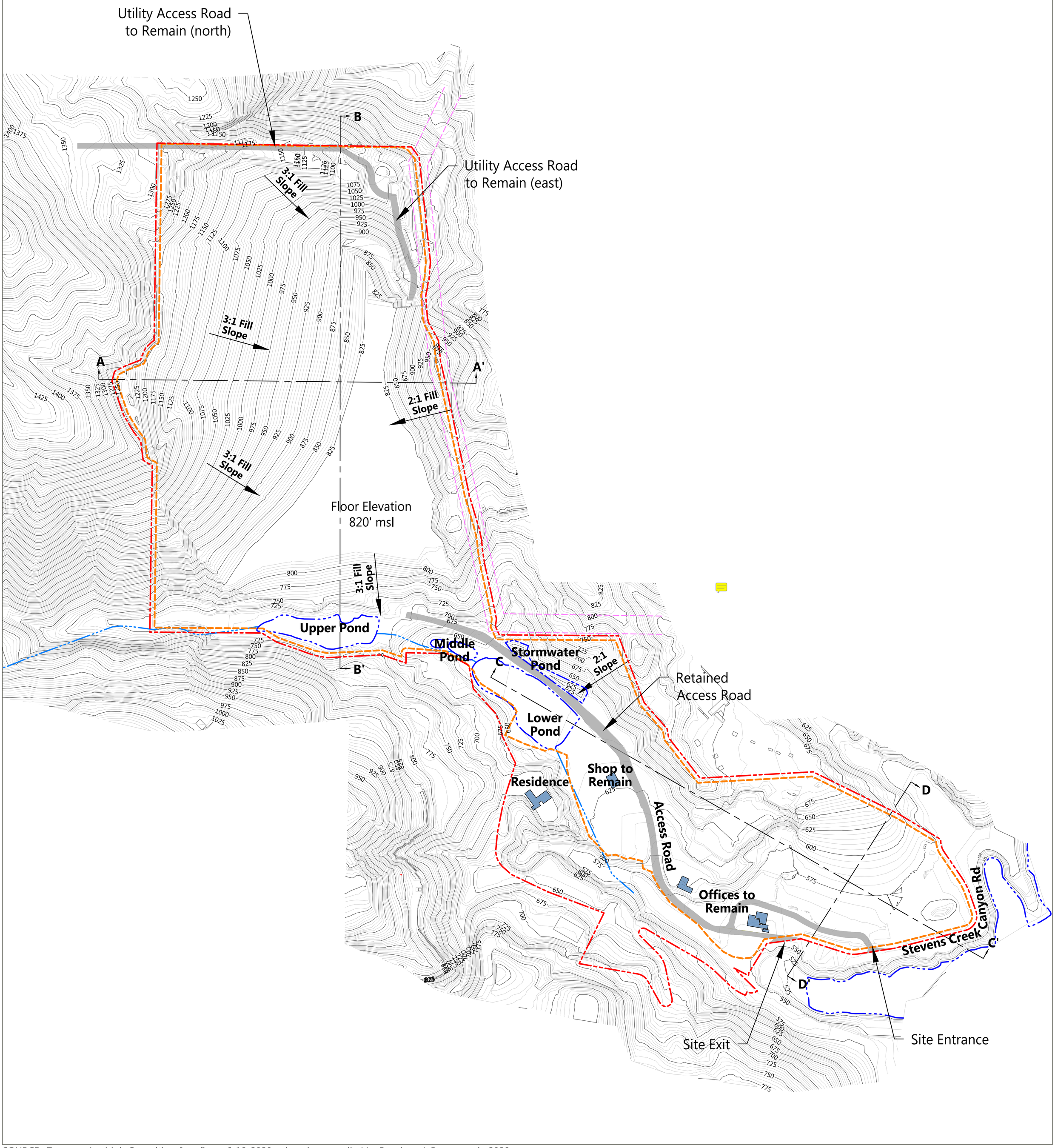

SOURCE: Topography–Muir Consulting, Inc., flown 6-18-2020; mine plan compiled by Benchmark Resources in 2020

NOTES:

1. Contour intervals: 5'-minor; 25'-major. Elevations shown in mean sea level (msl).
3. Planned Reclamation Fill Slope: 3h:1v.
4. Planned East Wall Fill Slope: 2h:1v.
5. "msl" = mean sea level.
6. See Sheet 6 for cross sections shown.
9. Mine and reclamation design based on topography prepared by Muir Consulting, Inc. Aerial survey date: 6-18-2020. See Appendix D for Professional Land Surveyor stamped drawings.
10. Stormwater pond capacity: Approximately 3.9 acre-feet
11. Fill Volume = ±11,700,00 cubic yards (CY).
12. The planned reclamation boundary and mining depth are shown; however, the extent of operations may or may not reach these limits. Total acreage to be disturbed and reclaimed will be within the limits of the reclamation plan boundary. Facilities and configurations within this boundary are approximate. All acreages are approximate and not intended to reflect goals for any particular surface type. Variations are subject to actual mined conditions and will not affect success of post mining land uses.

Site Boundary	±170 acres	A — A'	Cross Section
Reclamation Plan Boundary	±147 acres		Water Border
100-foot Power Line Easement			Swiss Creek
Access Road			Existing Building within Site Boundary
			Existing Building outside Site Boundary

REGISTERED PROFESSIONAL ENGINEER
SANDS H. FIGUERS
No. C-51485
Exp. 6/30/22
S. Figuers
CIVIL
STATE OF CALIFORNIA

BENCHMARK RESOURCES

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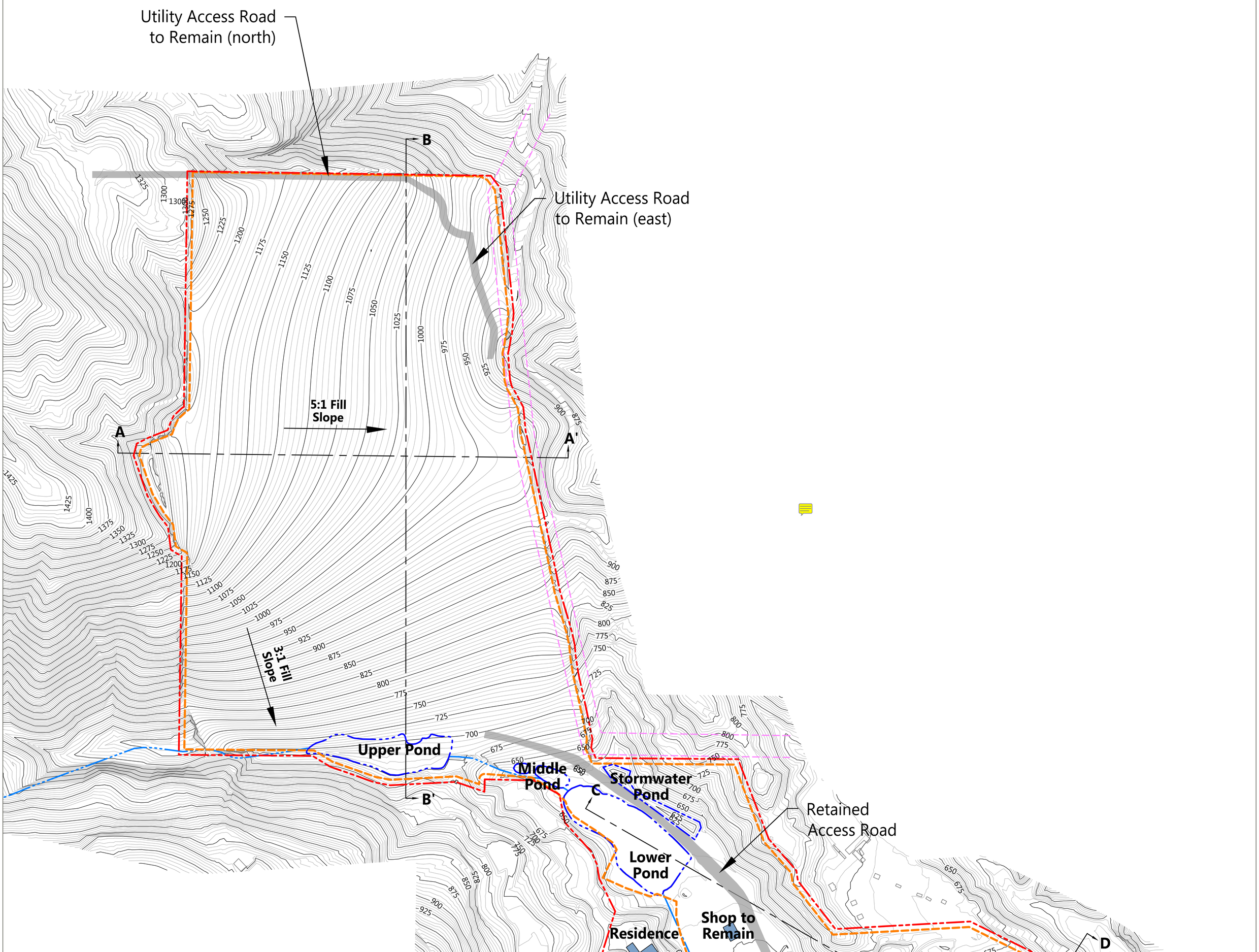
Reclamation Plan—Option A

STEVENS CREEK QUARRY
USE PERMIT & RECLAMATION PLAN AMENDMENT
Sheet 4



SOURCE: Topography–Muir Consulting, Inc., flown 6-18-2020; mine plan compiled by Benchmark Resources in 2020

NOTES:

1. Contour intervals: 5'-minor; 25'-major. Elevations shown in mean sea level (msl).
3. Planned Reclamation Fill Slope: 5h:1v.
4. "msl" = mean sea level.
5. See Sheet 6 for cross sections shown.
9. Mine and reclamation design based on topography prepared by Muir Consulting, Inc. Aerial survey date: 6-18-2020. See Appendix D for Professional Land Surveyor stamped drawings.
10. Stormwater pond capacity: Approximately 3.9 acre-feet
11. Fill Volume = ±20,500,00 cubic yards (CY).
12. The planned reclamation boundary and mining depth are shown; however, the extent of operations may or may not reach these limits. Total acreage to be disturbed and reclaimed will be within the limits of the reclamation plan boundary. Facilities and configurations within this boundary are approximate. All acreages are approximate and not intended to reflect goals for any particular surface type. Variations are subject to actual mined conditions and will not affect success of post mining land uses.

Site Boundary	±170 acres	A–A'	Cross Section
Reclamation Plan Boundary	±147 acres		Water Border
100-foot Power Line Easement			Swiss Creek
Access Road			Existing Building within Site Boundary
			Existing Building outside Site Boundary

REGISTERED PROFESSIONAL ENGINEER
SANDS H. FIGUERS
No. C-51485
Exp. 6/30/22
S. Figuers
CIVIL
STATE OF CALIFORNIA

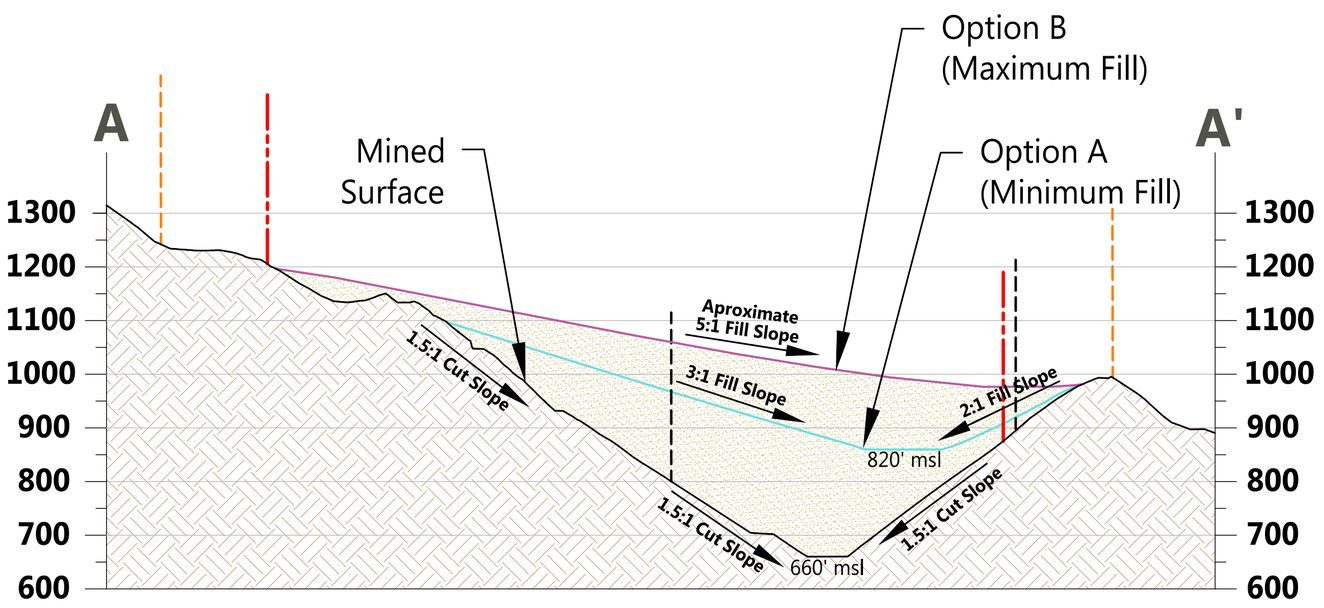
BENCHMARK RESOURCES

N

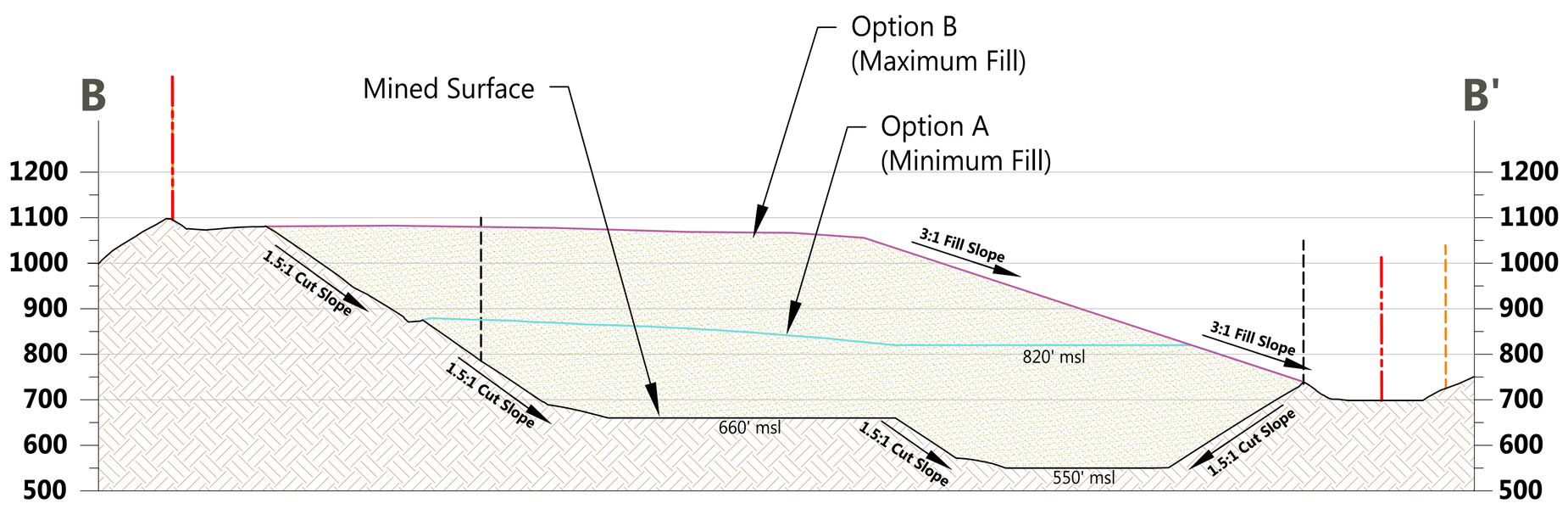
0 125 250 500 1,000 Feet

Reclamation Plan—Option B

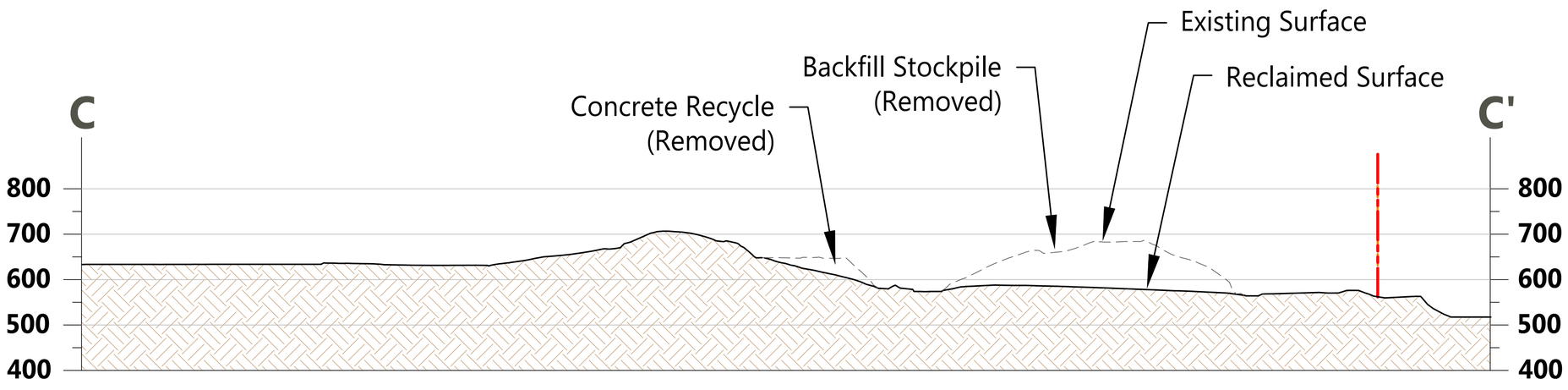
STEVENS CREEK QUARRY
USE PERMIT & RECLAMATION PLAN AMENDMENT
Sheet 5



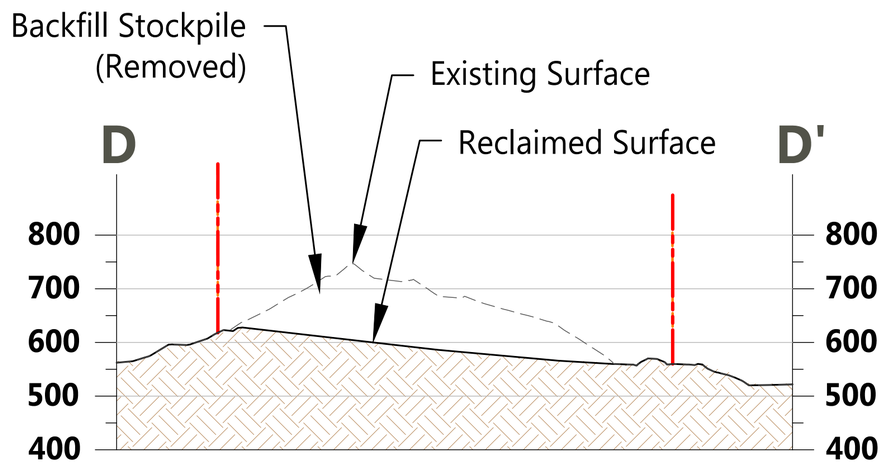
CROSS SECTION A-A'



CROSS SECTION B-B'



CROSS SECTION C-C'



CROSS SECTION D-D'

SOURCE: Topography–Muir Consulting, Inc., flown 6-18-2020; mine plan compiled by Benchmark Resources in 2020

NOTES:

1. Active slopes may be steeper and have different bench intervals than final reclaimed cut slopes.
2. "msl" = mean sea level.
3. Planned Reclamation Fill Slope: 3h:v1 (Option A), 5h:v1 (Option B).
4. See Sheets 4 and 5 for cross section locations shown.
11. Mine and reclamation design based on topography prepared by Muir Consulting, Inc. Aerial survey date: 6-18-2020. See Appendix D for Professional Land Surveyor stamped drawings.
12. Fill Volume Option A = ±11,700,000 cubic yards (CY). Fill Volume Option B = ±20,500,000 cubic yards (CY).
13. The planned reclamation boundary and mining depth are shown; however, the extent of operations may or may not reach these limits. Total acreage to be disturbed and reclaimed will be within the limits of the reclamation plan boundary. Facilities and configurations within this boundary are approximate. All acreages are approximate and not intended to reflect goals for any particular surface type. Variations are subject to actual mined conditions and will not affect success of post mining land uses.

Site Boundary

Reclamation Plan Boundary

REGISTERED PROFESSIONAL ENGINEER
SANDS H. FIGUERS
No. C-51485
Exp. 6/30/22
S. Figuers
CIVIL
STATE OF CALIFORNIA

BENCHMARK RESOURCES

N

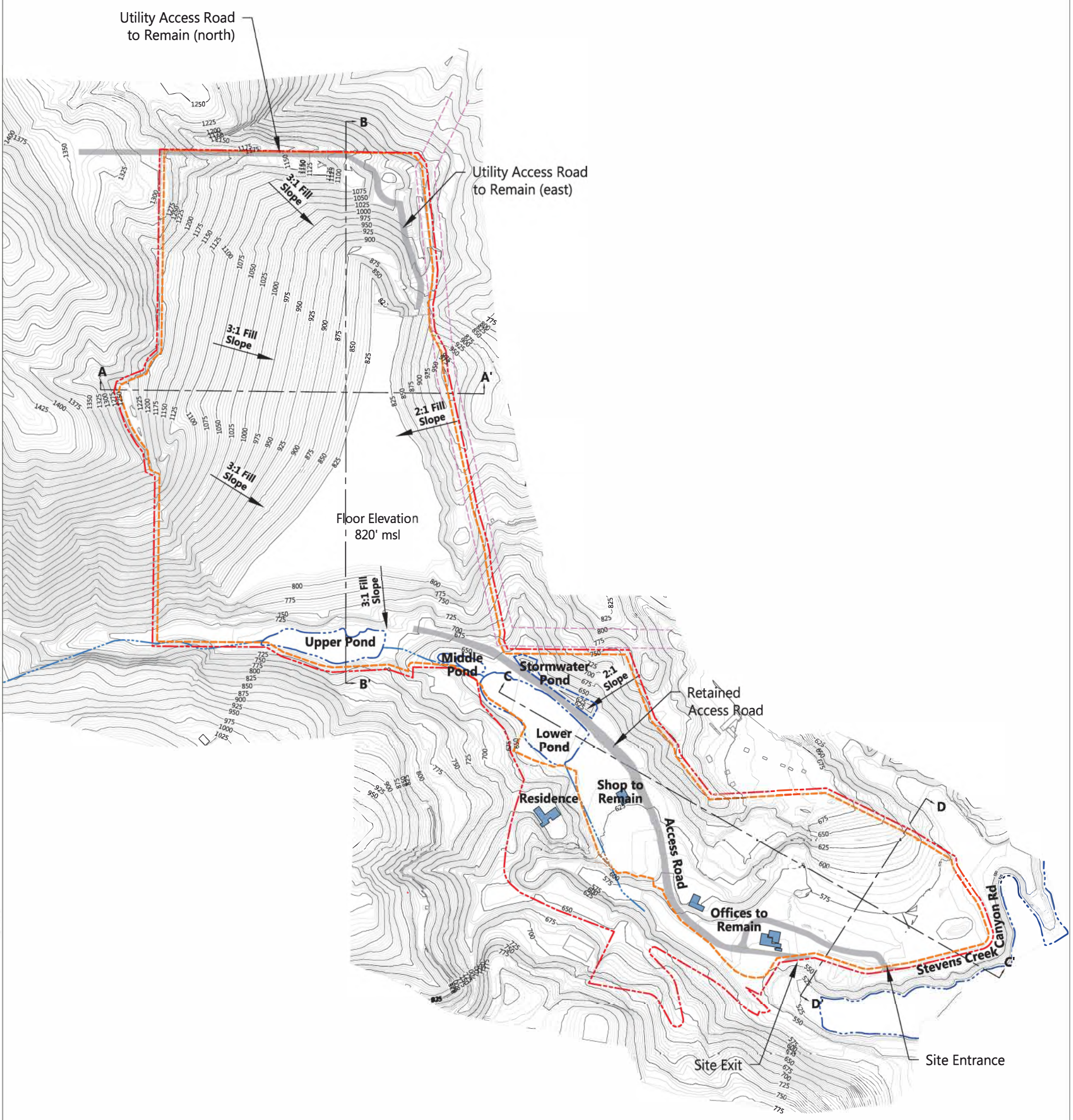
0 100 200 400 600

Reclamation Plan Cross Sections

STEVENS CREEK QUARRY

USE PERMIT & RECLAMATION PLAN AMENDMENT

Sheet 6



SOURCE: Topography–Muir Consulting, Inc., flown 6-18-2020; mine plan compiled by Benchmark Resources in 2020

NOTES:

1. Contour intervals: 5'-minor; 25'-major. Elevations shown in mean sea level (msl).
3. Planned Reclamation Fill Slope: 3h:1v.
4. Planned East Wall Fill Slope: 2h:1v.
5. "msl" = mean sea level.
6. See Sheet 6 for cross sections shown.
9. Mine and reclamation design based on topography prepared by Muir Consulting, Inc. Aerial survey date: 6-18-2020. See Appendix D for Professional Land Surveyor stamped drawings.
10. Stormwater pond capacity: Approximately 3.9 acre-feet
11. Fill Volume = ±11,700,00 cubic yards (CY).
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Site Boundary	±170 acres	Cross Section	
Reclamation Plan Boundary	±147 acres	Water Border	
100-foot Power Line Easement		Swiss Creek	
Access Road		Existing Building within Site Boundary	
		Existing Building outside Site Boundary	

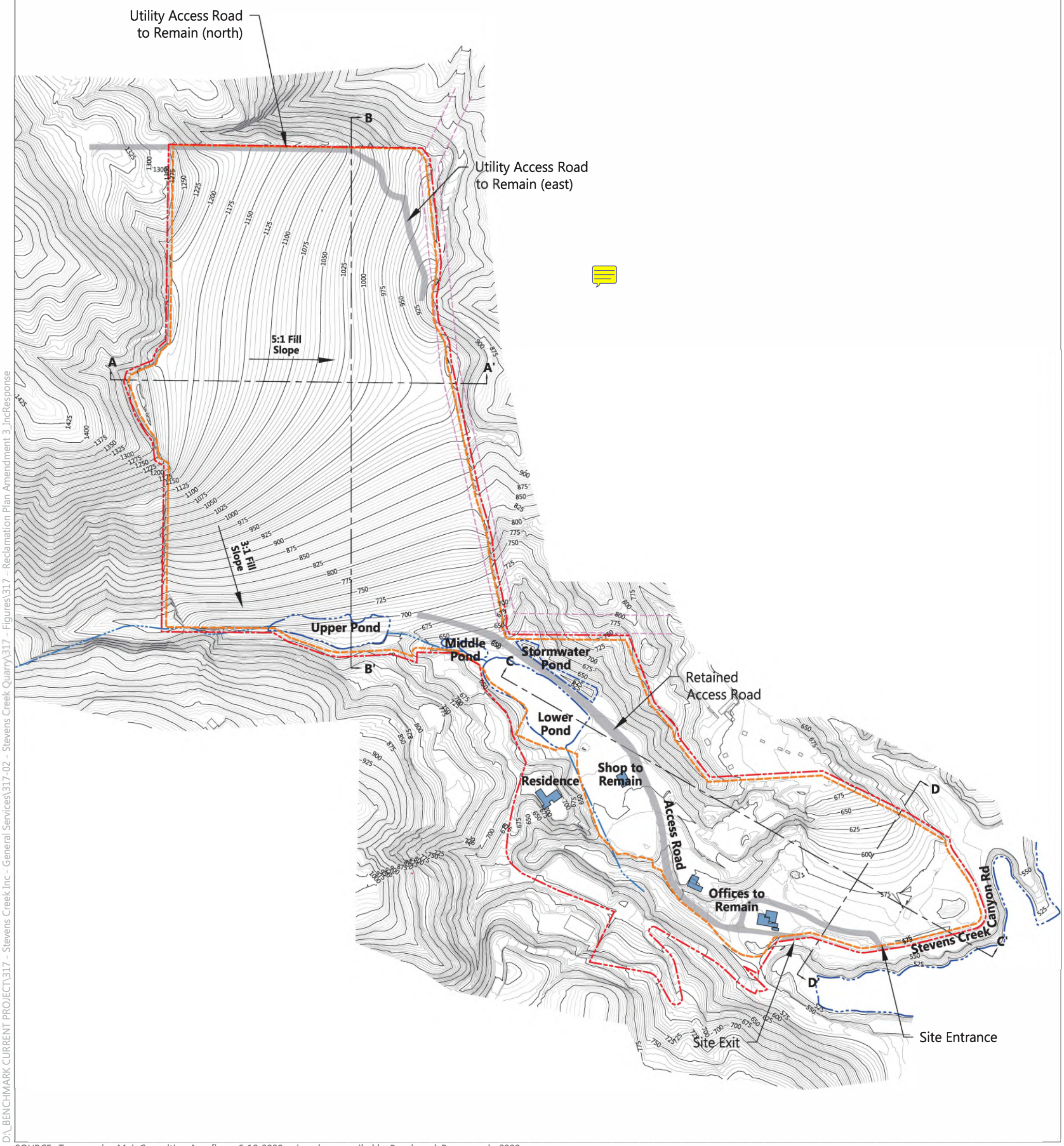
BENCHMARK RESOURCES

N

0 125 250 500 1,000 Feet

Reclamation Plan—Option A

STEVENS CREEK QUARRY
USE PERMIT & RECLAMATION PLAN AMENDMENT
Figure 12a



SOURCE: Topography–Muir Consulting, Inc., flown 6-18-2020; mine plan compiled by Benchmark Resources in 2020

NOTES:

1. Contour intervals: 5'-minor; 25'-major. Elevations shown in mean sea level (msl).
3. Planned Reclamation Fill Slope: 5h:1v.
4. "msl" = mean sea level.
5. See Sheet 6 for cross sections shown.
9. Mine and reclamation design based on topography prepared by Muir Consulting, Inc. Aerial survey date: 6-18-2020. See Appendix D for Professional Land Surveyor stamped drawings.
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Site Boundary	±170 acres	A A'	Cross Section
Reclamation Plan Boundary	±147 acres		Water Border
100-foot Power Line Easement			Swiss Creek
Access Road			Existing Building within Site Boundary
			Existing Building outside Site Boundary

BENCHMARK RESOURCES

N

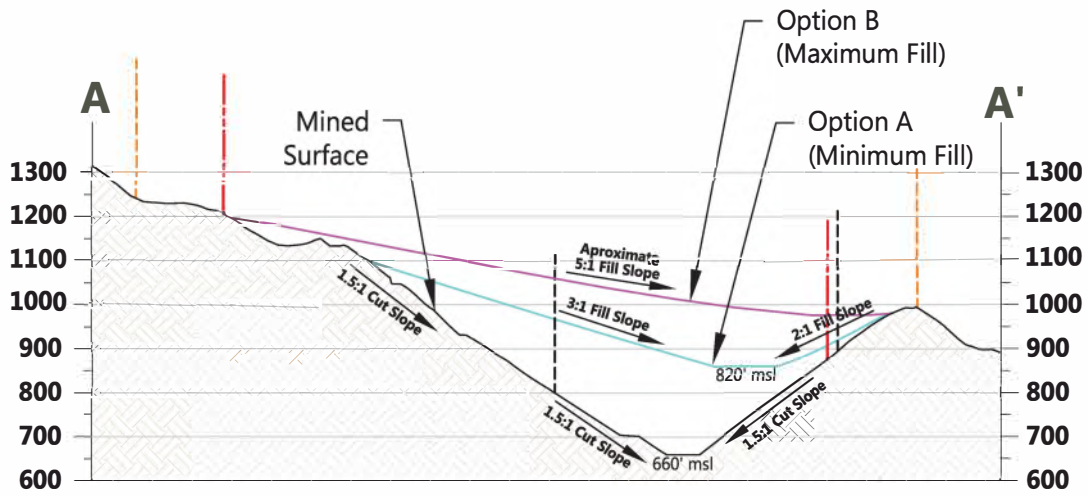
0 125 250 500 1,000 Feet

Reclamation Plan—Option B

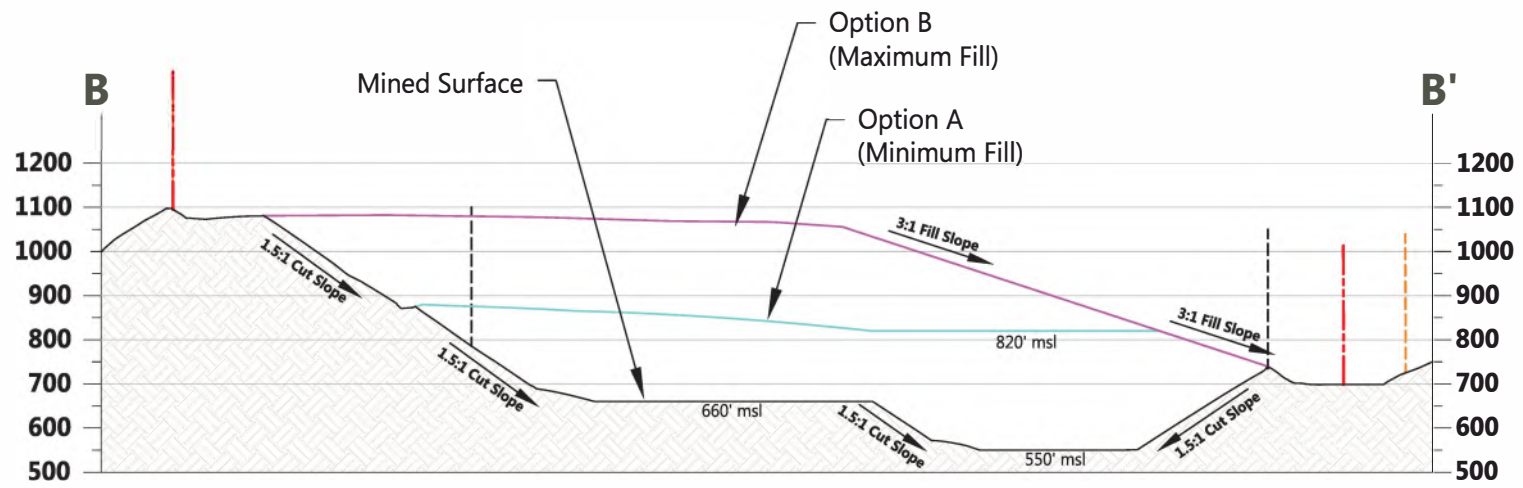
STEVENS CREEK QUARRY

USE PERMIT & RECLAMATION PLAN AMENDMENT

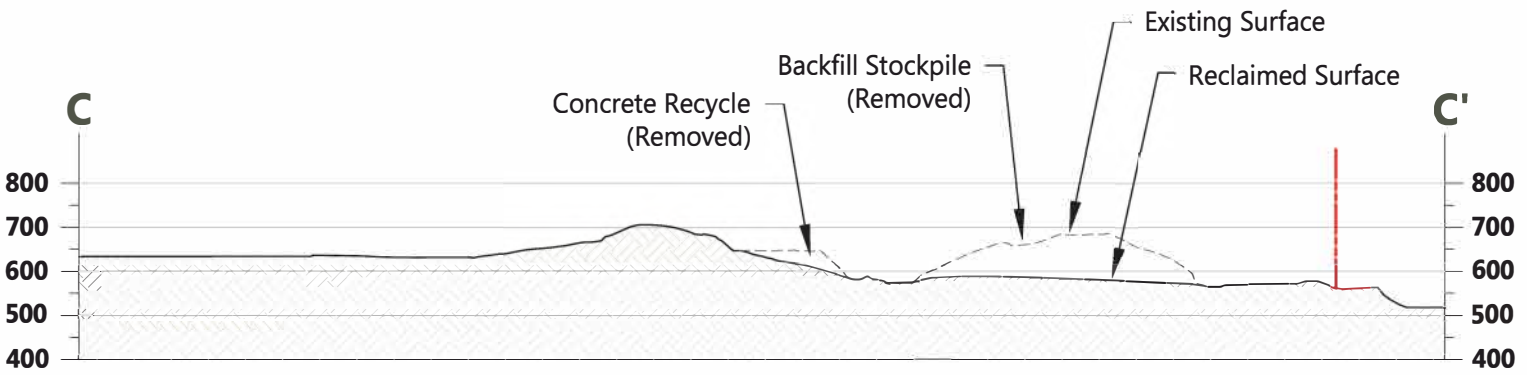
Figure 12b



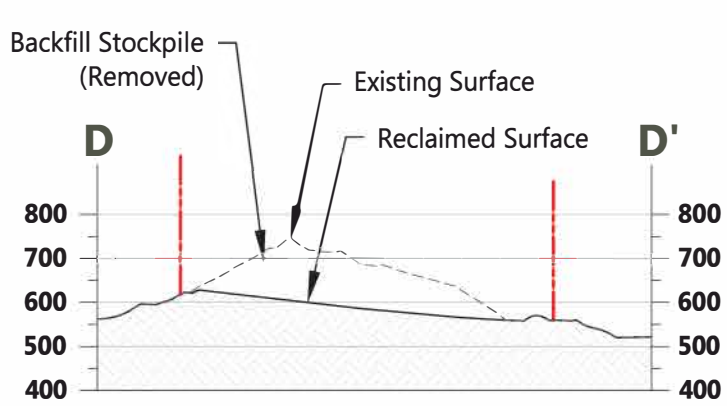
CROSS SECTION A-A'



CROSS SECTION B-B'



CROSS SECTION C-C'



CROSS SECTION D-D'

SOURCE: Topography–Muir Consulting, Inc., flown 6-18-2020; mine plan compiled by Benchmark Resources in 2020

NOTES:

1. Active slopes may be steeper and have different bench intervals than final reclaimed cut slopes.
2. "msl" = mean sea level.
3. Planned Reclamation Fill Slope: 3h:v1 (Option A), 5h:v1 (Option B).
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Site Boundary

Reclamation Plan Boundary

BENCHMARK RESOURCES

N

0 100 200 400 600

Reclamation Plan Cross Sections

STEVENS CREEK QUARRY

USE PERMIT & RECLAMATION PLAN AMENDMENT

Figure 13