CHAPTER 2:
PROJECT DESCRIPTION

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2.1 INTRODUCTION

United States Gypsum (USG) Plaster City Quarry (Quarry) holdings consist of 2,048 acres located in the northwestern portion of Imperial County adjacent to the Imperial County/San Diego County line (see Figure 2-1, "Regional Location" and Figure 2-2a, "Site Location—Quarry, Well No. 3, and Pipeline"). USG has continuously owned and operated the Quarry and associated wallboard manufacturing plant (Plant) since 1945. This section provides a detailed description of the proposed project, which includes development of Well No. 3 and associated pipeline, operations under the 2008 Quarry expansion, and restoration and preservation of two off-site properties (Viking Ranch restoration site and Old Kane Springs Road preservation site) (see Figures 2-2b and 2-2c, respectively).

2.2 PROJECT BACKGROUND

A water well for Quarry operations was permitted in 1983 under CUP No. 635-83 for a maximum withdrawal of 7,000 gallons per day (Quarry Well No. 1). The well was drilled in basin fill on the eastern side of the wash. The water was non-potable (due to high dissolved solids) and was used exclusively for dust suppression. Consequently, the Quarry has historically received potable water for drinking and sanitary uses via a narrow-gauge railroad tank car from the Plant.

Production from Quarry Well No. 1 declined due to incrustation and became unusable. Therefore, a second well (Quarry Well No. 2) was drilled in 1993 to replace the original well pursuant to CUP No. 635-83, which was re-issued for a new well. However, water production from Quarry Well No. 2 declined steadily over time.

Currently, Quarry Well No. 2 produces approximately 4,800 to 5,000 gallons per day (gpd), which is insufficient to meet USG's current need for approximately 15,000 gpd for dust control for Quarry operations. Therefore, USG proposes to replace existing Quarry Well No. 2 with planned Well No. 3 on USG-owned land located approximately 3 miles northeast of the Quarry. Quarry Well No. 3 would also replace an existing test well that was installed in 2001 at the proposed location of Quarry Well No. 3.

As described in Chapter 1, "Introduction," proposed Quarry Well No. 3 is part of a larger project involving the expansion and modernization of USG's Plant and Quarry (Quarry Expansion), that was evaluated in the 2008 EIR/EIS, which was certified by the Imperial County Board of Supervisors (Board) on March 18, 2008. As such, the potential environmental impacts of proposed Quarry Well No. 3 were previously evaluated in the 2008 EIR/EIS.

On March 18, 2008, the Board approved a Conditional Use Permit for Quarry Well No. 3 in Case No. CUP-08-0003, recorded document 2008-018433. However, USG did not initiate or obtain construction permits for Well No. 3 within the period set forth in Imperial Land Use Ordinance Section 90203.13. Therefore, CUP-08-0003 has expired.

Settlement Agreement

Water at the Plant is delivered by pipeline from three wells owned by USG within an area located approximately 8 miles west of Plaster City near or adjacent to the community of Ocotillo. The USG wells

pump from the same basin as other users. The 2008 EIR/EIS included Mitigation Measures 3.3-1 and 3.3-2 to address the potential impacts of additional pumping due to proposed Plant operations on other groundwater wells in the Coyote Wells Groundwater Basin. The Sierra Club filed a Motion of Supplemental Writ in 2008 that challenged the adequacy of the EIR and sought an order restricting USG's ability to pump groundwater in the Basin.

On December 16, 2013, the Court of Appeal reversed a prior Superior Court order, holding that there was insufficient evidence to support the county conclusion that the Mitigation Measures for the project, as adopted in January 2008, would be viable or effective in reducing the project's potential impacts on individual groundwater wells to a level of insignificance. As a result, in October 2018, the Sierra Club, Imperial County and the Imperial County Planning Commission, and USG (referred to collectively as the "Parties") entered into settlement negotiations. The settlement agreement dated November 13, 2018 and revised and augmented by the Notice of Entry of Order Regarding Discharge of the Writ and Satisfied Order on Remittitur dated August 5, 2019 (Settlement Agreement), replaces Mitigation Measures 3.3-1 and 3.3-2 adopted in the 2008 EIR/EIS with new mitigation measures (Mitigation Measures 3.3-1-A through 3.3-1-G). The measures are intended to ensure that project impacts on individual groundwater wells within the Coyote Wells Groundwater Basin are less than significant. The project area analyzed in this SEIR is not located within the Coyote Wells Groundwater Basin, and therefore this Settlement Agreement does not pertain to the proposed project.

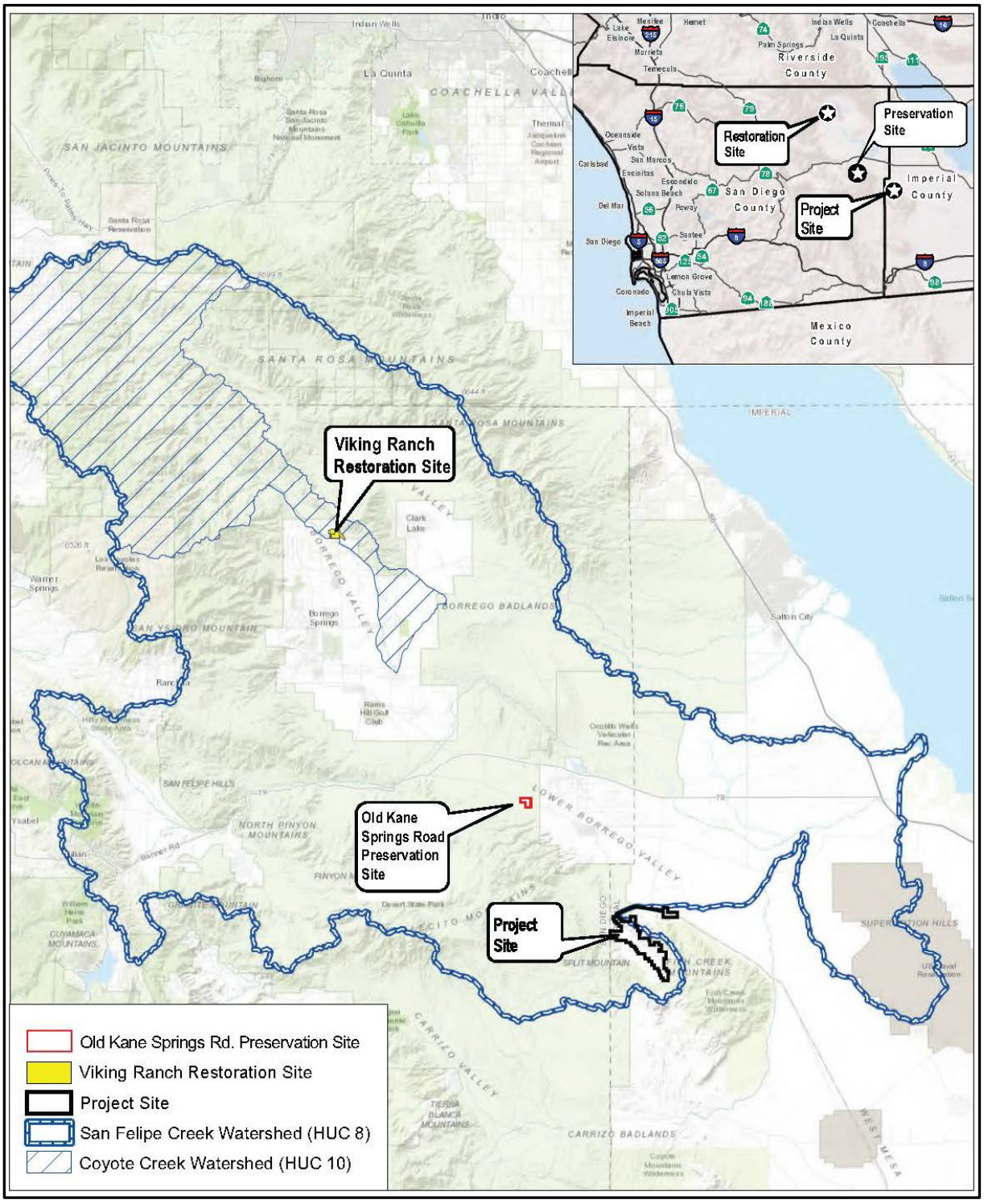
Mitigation Sites

In addition to the 2008 EIR/EIS, additional analysis of the USG Expansion/Modernization Project was completed under NEPA as part of the process of obtaining the federal approvals required for the Quarry expansion. The NEPA process resulted in the completion of a Draft Supplemental EIS (SEIS) in June 2019 and a Final SEIS in November 2019 for the USG Expansion/Modernization Project. The 2019 Final SEIS included mitigation to offset the impacts to 139 acres of water of the United States at the Quarry by restoring, enhancing, and preserving aquatic resources at a property where aquatic functions are similar to the impacted functions. In response, USG proposes to mitigate impacts at a 1.92:1 mitigation-to-impact ratio, for a total of 267.3 acres of rehabilitation, enhancement, and preservation of aquatic resources. The proposed compensatory mitigation consists of the restoration and enhancement of an approximately 206-acre area at the Viking Ranch restoration site (see Figure 2-2b) and the preservation of approximately 121-acres at the Old Kane Springs Road preservation site (see Figure 2-2c).

2.3 PROJECT PURPOSE

The proposed Well No. 3 and associated pipeline were approved under an existing County Conditional Use permit (CUP) CUP-08-0003, "US Gypsum water well for Quarry Expansion Project, Assessor's Parcel Number APN 033-020-009," which was approved by the Board on March 18, 2008. However, USG did not initiate or obtain construction permits for Quarry Well No. 3 within the time period set forth in Imperial County Land Use Ordinance Section 90203.13. Therefore, CUP-08-0003 has expired.

The location and characteristics of the proposed Quarry Well No. 3 and associated pipeline have not changed since the USG Expansion/Modernization Project was approved in 2008 and remain as described in the original application for CUP-08-0003 and in the associated 2008 EIR/EIS. The proposed well and associated facilities request has not changed since approval in 2008. Therefore, the CUP requested under the proposed project would essentially replace CUP-08-0003.



SOURCE: Dudek, 2021; Basemap USGS
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Figure 2-1
Regional Location

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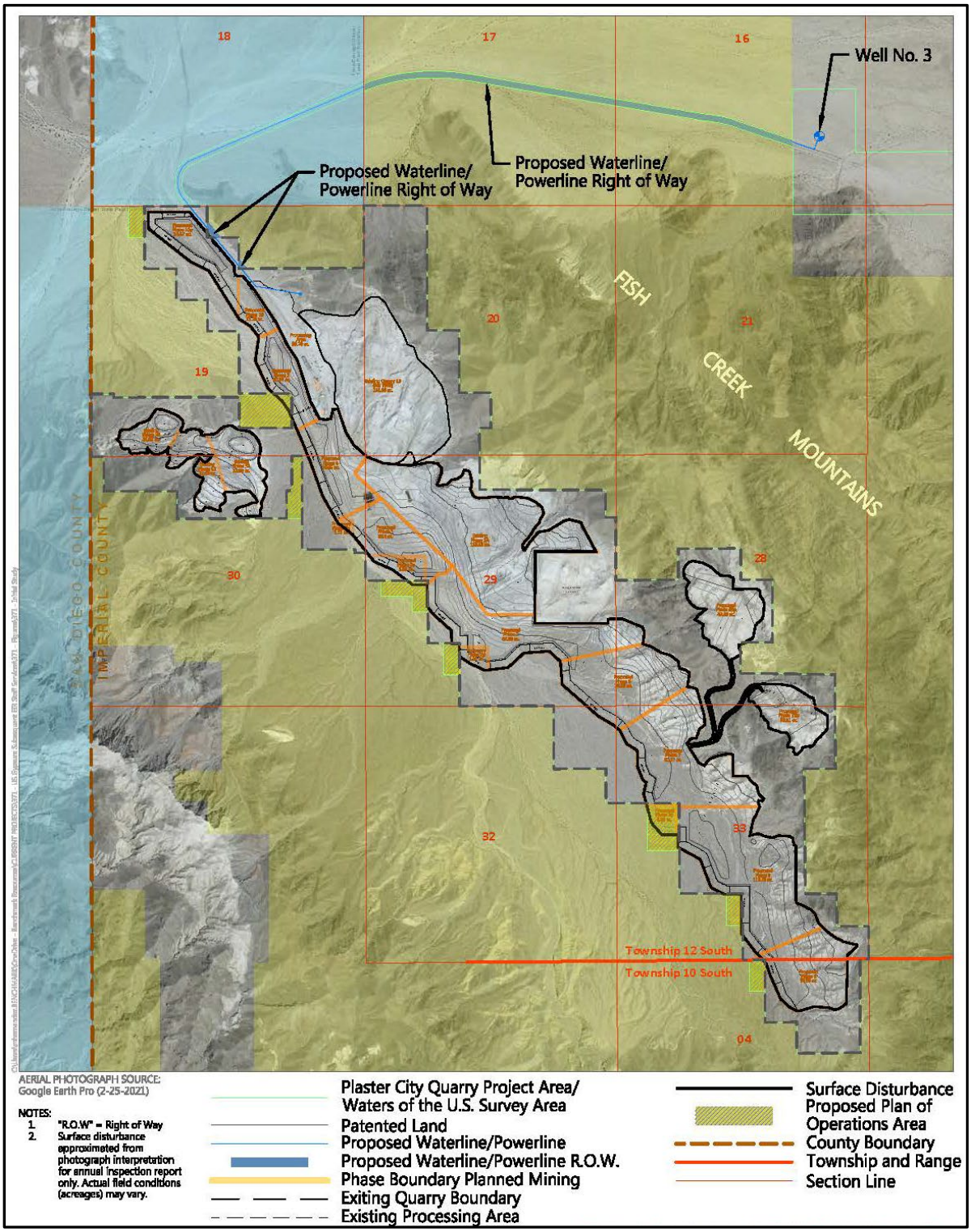

SOURCE: Benchmark Resources, 2021
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Figure 2-2a
Site Location—Quarry, Well No. 3, and Pipeline

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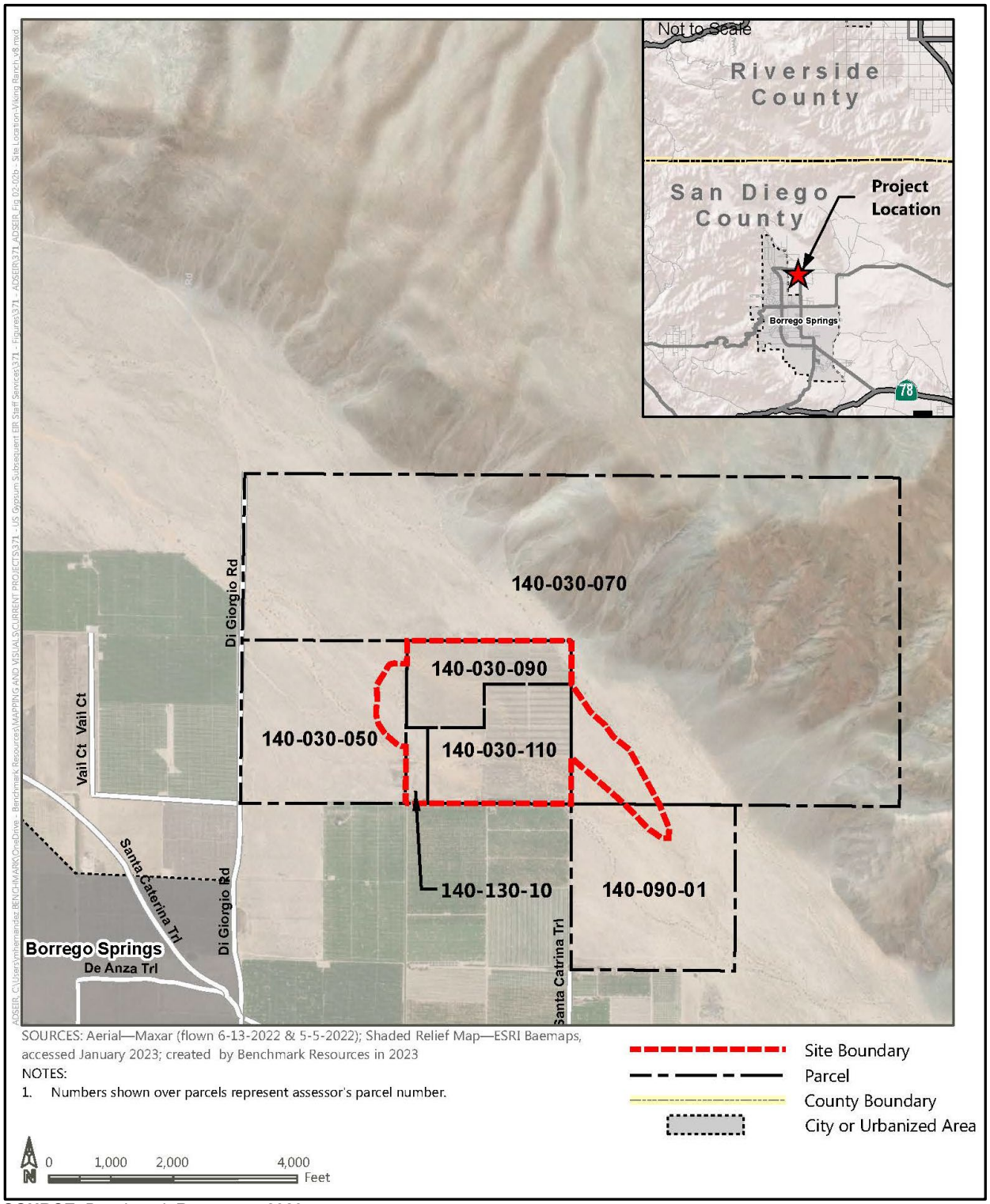

SOURCE: Benchmark Resources, 2023
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Figure 2-2b
Site Location—Viking Ranch Restoration Site

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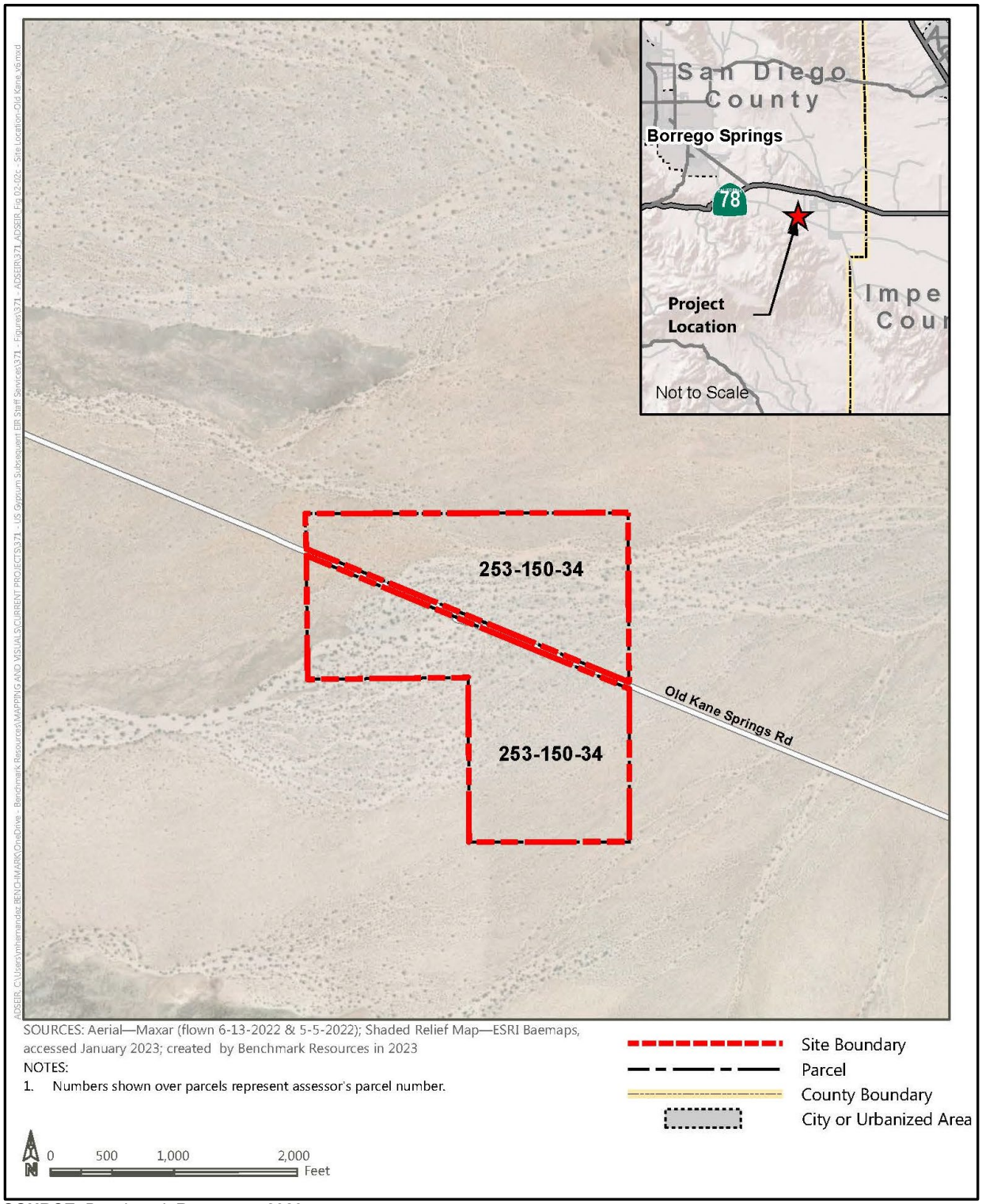

SOURCE: Benchmark Resources, 2023
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Figure 2-2c
Site Location—Old Kane Springs Road Preservation Site

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Although no entitlements are required from Imperial County for the Quarry expansion and Viking Ranch restoration or preservation off the Old Kane Springs Road preservation site, this SEIR evaluates potential environmental impacts associated with mining and reclamation activities under the Quarry expansion and with the associated restoration and preservation actions, for full disclosure and to provide the appropriate CEQA compliance analysis and mitigation for responsible agencies.

2.4 PROJECT OBJECTIVES

The proposed project includes the following objectives:

1) Secure permits and approvals to continue and fully develop quarrying gypsum reserves;
2) Maximize the recovery of known gypsum reserves needed for the Plant to fulfill its estimated operational design life;
3) Meet market demands for gypsum products;
4) Develop and maintain a replacement Quarry water supply designed to meet dust suppression requirements;
5) Concurrently reclaim Quarry site for post-mining uses as Open Space;
6) Secure permits and approvals to develop a water source to support the mining of gypsum reserves at the Quarry; and
7) Provide compensatory mitigation for potential impacts to waters of the state as a result of project implementation in compliance with State of California Fish & Game Code Section 1600 and the Porter Cologne Act.

2.5 ENVIRONMENTAL SETTING

2.5.1 Project Location and Access

The USG Plaster City Quarry holdings consists of 2,048 acres and is in the northwestern portion of Imperial County adjacent to the Imperial County/San Diego County line (see Figure 2-1 and Figure 2-2a). Well No. 3 would be located east of the existing Quarry on a USG-owned parcel (Assessor's Parcel Number [APN] 033-020-009). The proposed pipeline would be approximately 3.5 miles in length and would be developed within an existing right-of-way over an additional 12.7 acres (30 foot wide by 3.5 miles) of land, most of which (7.25 acres) is managed by the BLM. A portion of the right-of-way (3.75 acres) is located within the Anza-Borrego Desert State Park. The proposed pipeline would be developed within the existing narrow-gauge railroad right-of-way that is already disturbed by an existing unpaved access road. The approximately 207-acre Viking Ranch restoration site (see Figure 2-2b) is located 26 miles northwest of the USG Quarry in San Diego County (APNs 140-030-01-00, -05-00, -07-00, -09-00, -10-00, and -11-00). The 121-acre Old Kane Springs Road preservation site (see Figure 2-2c) is located 7 miles northwest of the USG Quarry in San Diego County (APN 253-150-34-00).

The Quarry, well site, and pipeline alignment are accessed via West Evan Hewes Highway. Viking Ranch is accessed on an unpaved easement that proceeds east from the northern extension of De Gregorio Road in Borrego Springs, California. The Old Kane Springs Road preservation site is accessed via the unpaved Old Kane Springs Road off Highway 78 or Split Mountain Road in Ocotillo Wells, California.

2.5.2 Assessor Parcel Numbers

The project site's assessor parcels are listed in Table 2-1, "Assessor's Parcel Numbers."

Table 2-1
Assessor's Parcel Numbers

Assessor's Parcel Numbers	Ownership	Acres (Approximate)[1]	Zoning
IMPERIAL COUNTY			
Well No. 3 Site			
033-020-009	USG	159.9	S-2
Pipeline Alignment			
033-010-016	State	17.0	STATE
033-010-017	BLM	12.6	BLM
033-010-025	BLM	18.1	BLM
033-060-008	USG	388.6	S-2
033-060-010	USG	80.3	S-2
033-060-012	BLM	1.2	BLM
USG Plaster City Quarry			
033-060-009	USG	40.0	S-2
033-070-010	USG	80.0	S-2
033-070-004	USG	37.2	S-2
033-070-005	USG	159.0	S-2
033-070-008	USG	69.0	S-2
033-070-010	USG	80.0	S-2
033-070-011	USG	108.7	S-2
033-070-017	USG	32.6	S-2
033-070-023	USG	11.4	S-2
033-080-005	USG	37.9	BLM
033-090-011	USG	10.4	S-2
033-090-012	USG	70.0	S-2
033-090-013	USG	37.6	BLM
033-090-014	USG	42.2	BLM
033-090-015	USG	122.0	BLM/S-2
	Subtotal	**2,048**	
SAN DIEGO COUNTY			
Viking Ranch Restoration Site			
140-030-01-00		4.8	
140-030-05-00	Anza-Borrego Foundation	12.3	8
140-030-07-00	State Park	26.5	n/a[3]
140-030-09-00	Borrego Water District	62.5	n/a[3]
140-030-10-00	Private	9.8	8
140-030-11-00	Borrego Water District	87.5	n/a[3]
	Subtotal	**207[2]**	
Old Kane Springs Road Preservation Site			
253-150-34-00	Private	121	8
	TOTAL:	2,376	

Source: Imperial County 2022b
Notes: 1—Portion of parcel within project area; 2—does not add due to independent rounding; 3—parcels are federal land and not subject to County zoning

2.5.3 Existing Land Uses and Conditions

The site of Well No. 3 and associated pipelines, the quarry area (impact area), Viking Ranch restoration site, and Old Kane Springs Road preservation site are located within the Colorado Desert, marked by land with relatively low elevations, some areas even below sea level. This area is characterized by a series of low-lying mountain ranges opening to the Salton Sea and Imperial Valley. The Quarry and project alignment are located in an undeveloped area at the northwest end of the Fish Creek Mountains, east of Split Mountain (part of the Vallecito Mountains) and along the southeast segment of the Fish Creek Wash. A portion of the northwest segment of the proposed pipeline alignment would cross Anza-Borrego Desert State Park.

The Quarry facilities, narrow-gauge railroad, and adjacent unpaved dirt access road are the only structures or infrastructure in the vicinity of the proposed project. The nearest residences are rural residences located approximately 2.5 miles north of the pipeline alignment at the nearest location, and approximately 3.7 miles northwest of Well No. 3.

The Viking Ranch restoration site was primarily former agricultural land located within the Coyote Creek Wash (see Figure 2-3, "Viking Ranch Restoration Site"). However, parcel 140-030-10-00 and the southeastern portion of parcel 140-030-11-00 are undeveloped and were not historically in agriculture. The Viking Ranch restoration site is bordered to the west, north, and east by the Anza-Borrego Desert State Park and to the south by privately-owned orchards. It is located at the base of Coyote Mountain, which is part of the Sana Rosa Mountain Range. The nearest sensitive receptor is a rural residence located approximately 900 feet west of the southwest corner of the restoration site.

The Old Kane Springs Road preservation site is bisected by Old Kane Springs Road and an associated overhead power transmission line supported by wooden poles (see Figure 2-4, "Old Kane Springs Road Preservation Site"). It contains Sonoran mixed woody scrub and desert dry wash woodland with little non-native species. It is surrounded by undeveloped desert lands, some of which are privately owned, but the predominate ownership in the area is Anza-Borrego Desert State Park.

2.5.4 General Plan Land Use Designations

The Quarry (including the expansion area), Well No. 3, and approximately 2.5 miles of the pipeline alignment are in an area designated as Recreation/Open Space, the remaining 1 mile of the pipeline alignment is in areas designated by the Imperial County General Plan as Government/Special Public (Imperial County 1993); this segment is part of the Anza-Borrego Desert State Park.

The San Diego County General Plan designates the Viking Ranch restoration site as Semi-Rural Residential (SR-4) and the Old Kane Springs Road preservation site as Rural Lanes (RL-30) (San Diego County 2011). The restoration of the Viking Ranch site to more natural conditions and preservation of the Old Kane Springs Road preservation site would not conflict with these designations.

2.5.5 Zoning Classifications

As the local land use authority, the County authorizes mining activities on unincorporated lands through the issuance of surface mining permits and approval of reclamation plans pursuant to County Code of Ordinances Title 9, Land Use Code, Division 20, Surface Mining and Reclamation. The provisions of the County Surface Mining and Reclamation ordinance apply to all lands within the County, both public and private. As provided

by this ordinance, surface mining operations are permitted within any County zoning designation upon approval of a surface mining permit (or existence of vested rights), reclamation plan, and financial assurances for reclamation.

The Quarry parcels (including the expansion area) are zoned either S-2 (Open Space/Preservation) or BLM (see Table 2-1). The proposed site of Well No. 3 is primarily zoned S-2 (Open Space/Preservation), with one parcel zoned STATE (APN 033-010-016). The S-2 Zone is the County's Open Space Preservation Zone. The primary intent of this zoning designation is to preserve the significant cultural, biological, and open space areas of the county. Permitted uses in the S-2 zone include agriculture and accessory uses, mineral extraction, pasturing and grazing, solar energy generation, public buildings, and storage. Additional industrial, manufacturing, commercial, energy, and recreational uses are allowed with the issuance of a CUP. The minimum lot size in the S-2 zone is 20 acres and the maximum height limit is 40 feet. The BLM and STATE zoning designations indicate parcels which are owned by the federal and State governments and not subject to County zoning requirements (Imperial County 2022).

The Quarry and Well No. 3 and the associated pipeline are associated with surface mining operations and are consistent with the Recreation/Open Space designation of the Imperial County General Plan (Imperial County 2015). Title 9, Land Use Ordinance, requires approval of a CUP to allow surface mining operations on lands zoned S-2.

The Viking Ranch restoration site and Old Kane Springs Road preservation site are in San Diego County and are not subject to Imperial County zoning requirements. Both properties are zoned by San Diego County as S92 (General Rural). This zoning designation is intended to provide approximate controls for land, which is rugged terrain, watershed, dependent on ground water for a water supply, desert, susceptible to fire and erosion, or subject to other environmental constraints (County of San Diego 2022).

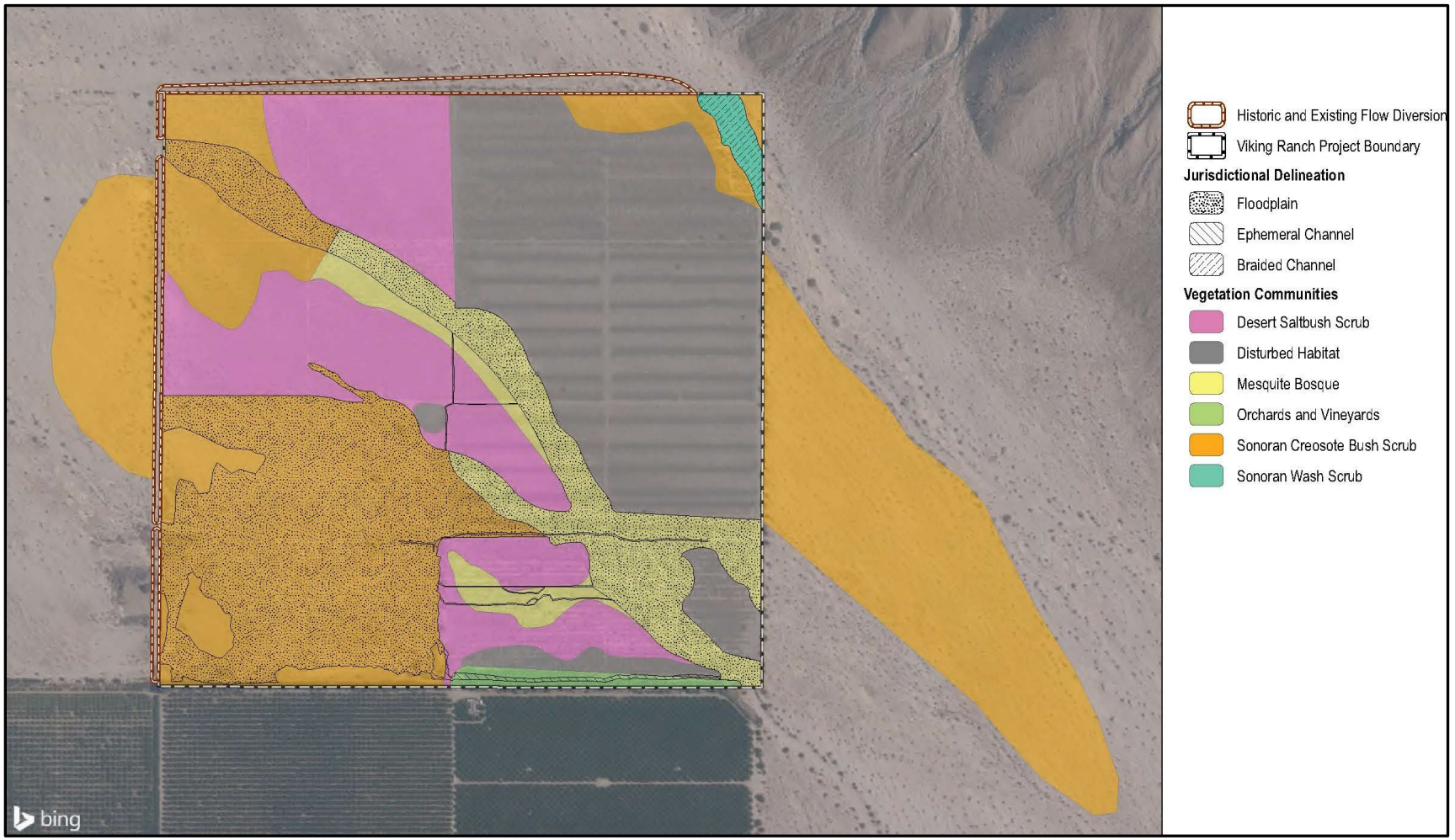
2.5.6 Mineral Resource Designations

An objective of SMARA is to create a mineral lands inventory by designating certain areas of California as being important for the production and conservation of existing and future supplies of mineral resources. Pursuant to Section 2790 of SMARA, the State Mining and Geology Board has designated certain mineral resource areas to be of regional significance.

The project area and the Viking Ranch restoration site and Old Kane Springs Road preservation site are in areas that have not yet been mapped as part of a Mineral Land Classification study (DOC 2022).

The Fish Creek Mountains gypsum deposit constitutes the largest reserves of this commodity in California. More than 31.2 million tons of gypsum has come from this deposit; of that, 30.1 million tons have been extracted by USG since 1945. This is the sole active gypsum quarry in the county, and the largest gypsum quarry in the United States (Imperial County 2006).

No locally important mineral resources are identified at either the Viking Ranch restoration site or the Old Kane Springs Road preservation site (San Diego County 2011).



SOURCE: Dudek, 2021; Aerial-Bing Mapping Services, 2018
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Figure 2-3
Viking Ranch Restoration Site

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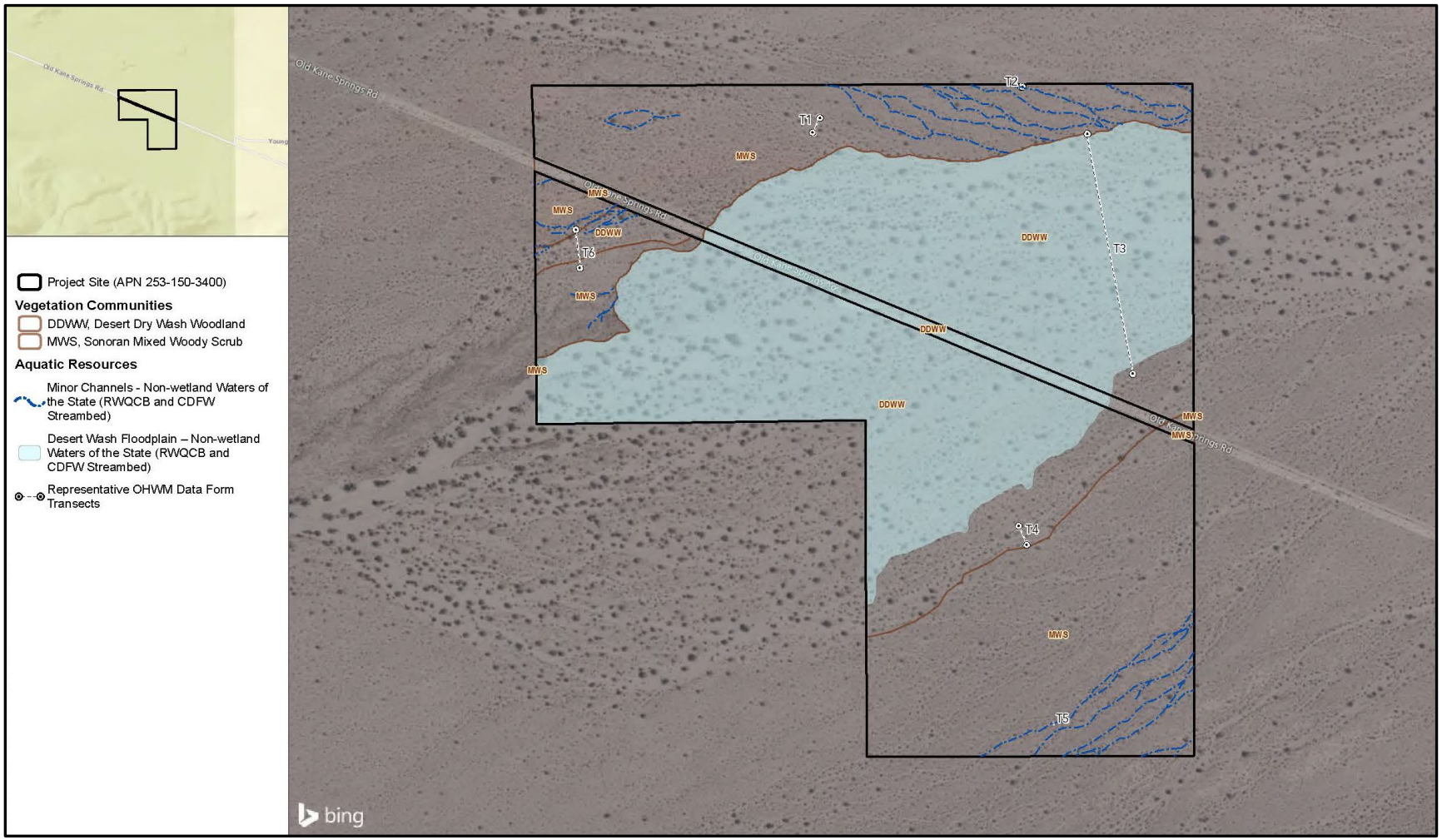

SOURCE: Dudek, 2021; Aerial-Bing Mapping Services, 2020
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Figure 2-4
Old Kane Springs Road Preservation Site

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2.5.7 Utilities

The site of proposed Well No. 3 and associated pipeline alignment are not currently served by any utilities. In conjunction with the development of the proposed pipeline, the project applicant would install an electric supply to serve the well. The electric supply would be installed alongside the existing alignment of the narrow-gauge railroad. No other utilities would be required to serve the proposed well or pipeline.

Water for dust suppression is currently provided to the Quarry by three existing wells located near Ocotillo. The Quarry is currently provided electricity by the onsite 14.4-megawatt (MW) cogeneration unit.

The Viking Ranch restoration site and Old Kane Springs Road preservation site are not currently served by any utilities and no utilities are proposed for installation at either site.

2.5.8 Equipment

Both construction of the proposed well and pipeline and restoration of the Viking Ranch restoration site would be expected to require the use of backhoes, a trencher, grader, dozer, and dump truck, as well as supply and water trucks.

2.6 PROPOSED PROJECT ELEMENTS

Plaster City Quarry Expansion

The Quarry expansion component of the USG Expansion/Modernization Project consists of the following:

- Improvements already made to the crushing and loading facilities (i.e., development of a new crusher building and extension to the existing rock storage building to allow additional hopper cards to be loaded).
- Adoption of a long-term mining and reclamation plan for the extent of USG's mineral holdings.

Overview of Quarry Operation and Production

The quarry operations are designed to quarry, crush, screen, and ship material via narrow-gauge rail to the Plant for finish processing and via truck for agricultural and Portland cement manufacturing uses. The existing Quarry processing facility would not be expanded beyond the existing improvements already made. Haul road alignments would be changed to accommodate individual quarrying in various areas, and the rail facility and access road would be maintained. Quarry access would regularly change as the individual quarries expand. All service and haul roads would be retained within the Quarry footprint. Equipment parking and storage areas at the Quarry would be on absorbent pads over a plastic membrane to keep fluids from passing through it to the soil below. Access roads outside the mining footprint, but within the Quarry boundary, would be maintained in place once established as identified in the Reclamation Plan.

Proposed Quarry operations are approved to produce up to 1.92 million tons of gypsum per year. At this rate of production, the number of train trips between the Quarry and the Plant could reach about 1,800 round trips per year.

Summary of Approved 2003 Mine Reclamation Plan

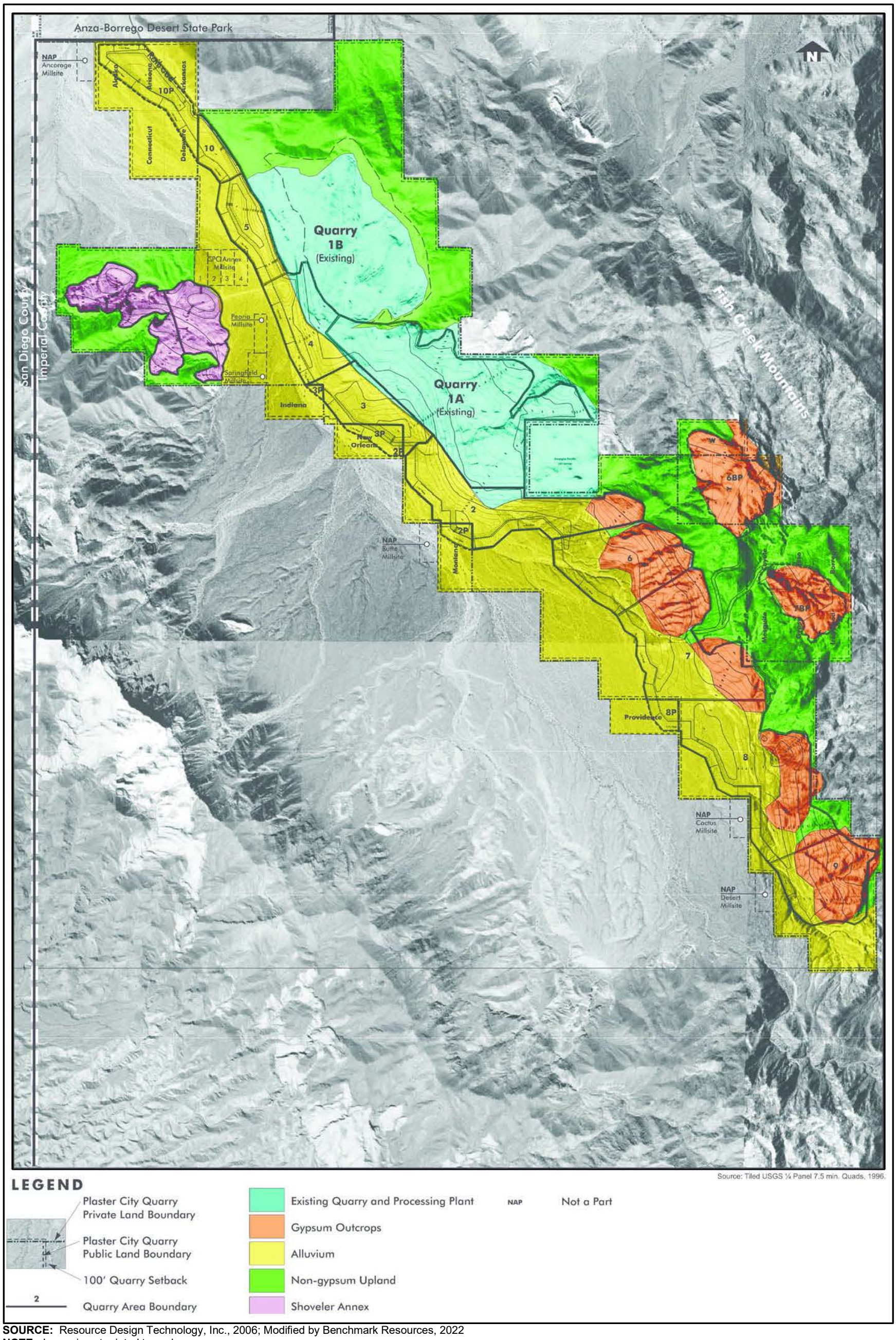
On March 18, 2008, the Board approved a Mine Reclamation Plan (2003) for the U.S. Gypsum Mining & Quarry expansion project pursuant to Case No. CUP-08-0003, recorded document 2008-018432. The 2003 Mine Reclamation Plan consists of a multi-phased plan that would systematically quarry and process up to the rate authorized in USG's current air quality permit, approximately 1.92 million tons of gypsum annually. The Mine Reclamation Plan is divided into phases based on current geological data, quantity and quality of gypsum, market demand and proximity to the existing Plant. Each phase has been numbered for purposes of identification. Figure 2-5, "Plaster City Quarry Plan." shows the proposed phasing. At maximum production rates, the known reserves would provide in excess of 80 years of production.

Two types of quarrying are proposed: outcrop quarrying and alluvial wash quarrying. The two methods of quarrying are described below.

Outcrop Quarrying: The areas of current production are designated as Quarry 1A and Shoveler. These areas consist of outcrops of gypsum above the level of the alluvial wash. Under the proposed project, production would continue with the extension and development of benches with a height of 25 feet. The final configuration of the benches would be based upon: (1) the contact with underlying low-purity gypsum, anhydrite, arkose, or granite; and (2) the up-dip limit of the outcrops. Quarry development would progress to each of the additional phases beginning with Phase 2, then proceeding both north and south into adjacent phases based on proximity and gypsum quality. As previously indicated, overburden on these outcrops is almost nonexistent. When surface clays are encountered, they would be removed for use in reclaiming previously mined outcrops.

Alluvial Wash Quarrying: Under the USG Modification/Expansion Project, quarrying would extend north to south. Quarrying of the alluvial wash deposits would progress downward and westward to a maximum overburden depth of 100 feet. Extraction of the gypsum would progress downward from the toe of the overburden strip slope in 25-foot vertical benches at a maximum stable slope of 1H:1V (Horizontal:Vertical) until the bottom of the mineable zone is reached. The depth of each Quarry phase would vary based on the bottom limit of gypsum.

An earthen berm would be constructed along the west side of the Quarry to divert natural surface water flows toward Fish Creek Wash and away from the Quarry operations. The design was based on a hydrology study and drainage analysis (Joseph E. Bonadiman & Associates Inc. 2004, cited in Dudek 2018). The berm would be constructed of overburden material from various gypsum mining phases, or portions of phases, in the alluvial wash stripped to expose the gypsum. As overburden is stripped, a portion would be pushed to the east bank of the wash and the furthest southern limits of the planned disturbance to form the berm. Another berm consisting of the top 1 foot of surface alluvium would be pushed over the west Quarry slopes and used as surface soil upon reclamation. Remaining overburden may be stockpiled for a short period of time but would typically be pushed into the adjoining mined out areas for reclamation of the slopes such that overburden from Phase 3 would be used in Phase 2, overburden from Phase 4 would be used in Phase 3, and so forth. At end of the quarry life, all berms will have been used for Reclamation.



SOURCE: Resource Design Technology, Inc., 2006; Modified by Benchmark Resources, 2022
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Figure 2-5
Plaster City Quarry Plan

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Quarry Reclamation Techniques

Where feasible, reclamation would occur concurrently during mining operations. Following the removal of gypsum, the disturbed areas would be reclaimed to a state of natural open space. The steepest portion of the hillside quarries would be sloped no steeper than 1H:1V slopes and about 100 feet high. The site access on the north would remain gated. The privately held lands would not be open to public recreational use. The benched hillsides would be recontoured by blasting or dozing the benches to soften the topography.

Once quarrying operations are terminated, equipment and structures would be removed; their foundations would be reduced below grade and covered in place. It is likely that an office or trailer would remain on site for ongoing revegetation monitoring, and for security purposes. The access road would be maintained for access to the main process area site and specific haul roads would be maintained to access reclamation activity and monitoring. Those portions of the rail line at natural surface elevation would remain in place. The length of rail proceeding below original ground line under the rock storage building will be removed and the spur cut backfilled. Ultimately all equipment, power poles, and buildings would be removed, road access would be restricted by gates, warning signs would be posted, and access to Quarry benches would be blocked by berms and/or boulders.

Revegetation

Revegetation of the mined areas occurs as described in the approved 2003 Mine Reclamation Plan. The Revegetation Plan element of the Reclamation Plan focuses on preparing the surface of the mined area and providing native seeds to take advantage of the infrequent rains.

Revegetation efforts are fully described in the Mine Reclamation Plan and would be varied over the life of the operation. The revegetation techniques are proposed as guidelines that would be followed until new information or techniques become available, which could improve the results of the revegetation activities. Revegetation efforts would use seeds and plants of native species collected locally (on-site and on adjacent areas). The undisturbed portions of the Quarry and areas adjacent to the Quarry provide the targets for achievement through the revegetation effort. The areas to be disturbed by future mining would also provide specimens for direct transplanting of native species, and the undisturbed areas would provide a source of seeds for the revegetation effort.

Changes to Mine Reclamation Plan

Since the USG Expansion/Modernization Project was approved in 2008, no changes to the Quarry Mine Plan as proposed in the Mine Reclamation Plan (March 2003) have occurred. However, minor changes have occurred to the Plan of Operations due to a reduction in the amount of public land at the Quarry. The Plan of Operations is subject to federal review by BLM and not County review, and, as such, is not described further in this Initial Study.

Under the current Quarry expansion, the limits of disturbance identified in the 2003 Mine Reclamation Plan have not changed; however, due to changes in land ownership and adjustments to the private land boundary resulting from updated and more precise mapping, the portion of the Mine Plan consisting of public lands has been reduced from 408 acres in 2003 to the present 73.2 acres. Of the 73.2 acres, 1.1 acres in the Annex Mill Site #1 have been disturbed by development of the access road; continued development of the Quarry is anticipated to disturb approximately 9.8 additional acres of public lands. Approximately 1,118.7 acres of USG privately-owned land is currently disturbed or would be disturbed

under the 2003 Mine Plan. For a total disturbance area of approximately 1,129.6 acres on both private and public land.

Well No. 3 and Associated Pipeline

Well No. 3 would be located east of the existing Quarry on a USG-owned parcel (APN 033-020-009) and would provide processing water via a 10-inch-diameter, approximately 3.5-mile-long underground pipeline that would be developed within the existing USG narrow-gauge railroad right-of-way (ROW CACA 56908). The pipeline would extend from Well No. 3 to the existing offload facility within the Quarry processing area. In conjunction with the development of the pipeline, USG would install an electric supply line to serve the well pump, The power service line would be installed underground from the well head to the Quarry gate; power poles would be installed within the Quarry site. In this document, where reference is made to this pipeline, the electrical line is understood to be included even if not specifically mentioned. The locations of the proposed Well No. 3 and pipeline are shown on Figure 2-2.

Well No. 3

Approximately 26 AF/yr are needed to support Quarry operations. Originally, a water well for Quarry operations was permitted in 1983 under CUP 635-83 for a maximum withdrawal of 7,000 gallons per day (gpd) (Well No. 1). The well was drilled in basin fill on the eastern side of the wash. The water was non-potable (due to high dissolved solids) and was used exclusively for dust suppression. Consequently, the Quarry has historically received, and continues to receive, potable water for drinking and sanitary uses via a narrow-gauge railroad tank car from the Plant.

Production from Well No. 1 declined steadily over time due to the limited presence of groundwater in the penetrated aquifer and severe scale buildup in the well casing due to high Total Dissolved Solids (TDS) levels. Therefore, a second well (Well No. 2) was drilled in 1993 to replace the original well pursuant to CUP 635-83, which was re-issued for the new well. However, water production from Well No. 2 also declined steadily over time. Quarry Well No. 2 has been rehabilitated without a significant improvement in water production. Currently, Quarry Well No. 2 produces between approximately 4,000 and 4,800 gallons per day (gpd), which is insufficient to meet USG's current need for approximately 15,000 gpd for Quarry operations.

In 2001, USG drilled a test hole approximately three miles east-northeast of the Quarry on company-owned land along the USG railroad right-of-way. Pumping tests indicate that a production rate of 25 gallons per minute (gpm) to 50 gpm may be sustainable at the test hole location. USG is proposing to install Quarry Water Well No. 3 within one-half mile of the successful test hole.

For comparison purposes, the current permit limit of 7,000 gallons per day is approximately equivalent to 7.8 AF/yr, or 4.9 gpm assuming that the pump is operated continuously. The needed 26 AF/yr is approximately equivalent to 16.1 gpm assuming that the pump is operated continuously. Thus, based on the pumping test results, a production well developed in the vicinity of the test well would be able to sustain an adequate production rate. The proposed project would result in an increase in the rate of groundwater extraction of approximately 18.2 AF/yr.

The proposed Quarry Well No. 3 site represents approximately 1/8-acre on USG property. Well. No. 3 would provide a reliable water supply capable of producing approximately 23,000 gallons per day (or 26 acre-feet per year [AF/yr]). The well would be approximately 6 inches in diameter and 565 feet in depth.

Final well design and pipeline criteria are being engineered. The water would be used in the Quarry for dust suppression on the haul roads and crushing equipment, for the watering of transplanted desert plant species during reclamation, and as a possible supply of potable water for use by employees.

Pipeline

The proposed pipeline would be constructed of high-density polyethylene pipe (HDPE) and would be installed at a depth of about 4 feet below the ground surface. The pipeline would be developed within the existing narrow-gauge railroad right-of-way that is already disturbed by an existing unpaved access road. A trench, approximately five feet wide and seven feet deep would be excavated between the railroad and access road for installation of the pipeline. Excavated soils would be temporarily stockpiled along the alignment and used as backfill. Import of fill material is not anticipated. Construction would occur within a 30-foot-wide area along the entire length of the pipeline alignment. Therefore, development of the pipeline would disturb approximately 12.7 acres (30 foot wide by 3.5 miles) of land, most of which is managed by the BLM. A portion of the right-of-way (3.75 acres) is located within the Anza-Borrego Desert State Park. All waterline/powerline construction areas would be restored to pre-project conditions following the completion of construction activities.

Viking Ranch Restoration

The Viking Ranch parcels were primarily former orchard land located north of Borrego Springs and within the Coyote Creek Wash (see Figure 2-1). However, parcel 140-030-10-00 and the southwestern portion of parcel 140-030-11-00 are undeveloped and were not historically in agriculture. The mitigation site is located approximately 26 miles from the USG Quarry. Viking Ranch was used for orchard production until the site was purchased by the Borrego Water District in 2017. Previous agricultural land modifications were constructed that diverted hydrology of Coyote Creek around the agricultural field. These topographic modifications included excavation of ditches and construction of berms to protect the orchard from flooding. The restoration program will remove these diversion features to re-establish braided, unconstrained flow across the site, consistent with the existing Coyote Creek floodplain. The restoration program is described in the Draft Habitat Mitigation and Monitoring Plan for the United States Gypsum Company Plaster City Expansion/Modernization Project (HMMP) (see Appendix D-4).

Baseline Conditions

The HMMP documents existing conditions on the restoration site. A site reconnaissance of the Viking Ranch restoration site was conducted on June 1, 2018, by Hugh McManus of Dudek. No residence or other habitable structures were observed on the site. Evidence of past agricultural activity was observed in the form of irrigation lines and remnants of chipped trees in windrows. Additional notable observations include a decommissioned water well, a power distribution board, electrical power hook ups, debris, containers storing oil, and a weather station maintained and operated by University of California Irvine.

A jurisdictional delineation was completed for the restoration site that identified floodplain areas, ephemeral channels, and braided channels on the site, as shown on Figure 2-3. A total of 53.12 acres of jurisdictional waters were identified on the restoration site.

A Preliminary Environmental Site Assessment Report (ESA) (Dudek 2018, cited in Dudek 2022) was conducted on the site that included the collection of 10 soil samples that were analyzed for organochlorine pesticides. No organochlorine pesticides were detected at or above the above reporting

limits in any of the 10 samples analyzed. The ESA includes the following recommendations to address potential hazards and hazardous materials concerns on the site:

- Two oil filled plastic containers observed on the site should be removed and properly disposed of in accordance with applicable local, state, and federal guidelines.
- Stained soil was observed on the site near a cement platform located in the southwest corner of the site. The stained soil should be removed and disposed of in accordance with applicable local, state, and federal guidelines.
- A water well was located on the site. If the owner of the site plans to use the well in the future, the well should be capped with a lockable lid. If no future use of the well is planned, the turbine discharge head and impeller shaft should be removed, and the well should be abandoned in accordance with local, state, and federal guidelines. Alternatively, the well may be converted to a monitoring well.
- Surface water was observed flowing on the site from the adjacent property to the south. The source of the surface water should be identified. The surface water should then be prevented from entering the site or rerouted off of the site. Surface water from unknown sources has the potential to carry contamination onto the site.

A general biological survey and habitat assessment for sensitive species was conducted on the restoration site on October 17, 2019, by Callie Amoaku and Kathleen Dayton of Dudek. The species observed and their potential to occur on the site are described in the HMMP.

A record search for potential cultural resources was conducted by Dudek archeologists for the restoration site. No cultural resources have been recorded within the proposed restoration site and within a 1-mile buffer area. While no significant impacts or known tribal resources have been identified, the HMMP recommends monitoring cultural resources during earth disturbance work during restoration implementation.

Site Preparation

USG will select a County of San Diego-approved Project Biologist who will review the final HMMP and restoration construction documents and help to ensure that all site protections, pre-work bird surveys, and any other required items are adequately performed prior to beginning restoration work.

Weed and Invasive Species Removal: Although a former orchard was demolished several years ago, the fallowing process was not conducted in a manner that re-established normal desert ecological systems on the property and the hydraulic disconnection with Coyote Creek remains. Orchard debris wood chips and larger stumps and branches remain a significant impediment to flow as well as diversion berms and ditches. The restoration of the site would clean the site of all large and/or coarse woody debris, surface irrigation pipe, irrigation standpipes, electrical infrastructure, etc. Existing native and non-native vegetation would be removed where necessary. Topsoil containing the seed bank of existing native vegetation would be retained on site.

The non-native tamarisk within the restoration site would be cut to grade and treated with a systemic herbicide approved for use in wetland areas. Cut tree segments would be carefully removed from the site avoiding damage to adjacent habitat. Any other non-native herbaceous species present in

the enhancement areas would be removed using hand tools. Cut vegetation would be bagged/containerized and disposed of off-site in a legal manner.

Grading: Following non-native vegetation removal, the northern berm and diversion ditch would be backfilled and leveled with the adjacent upstream topography to remove the impediment to downgradient braided flow. The eastern berm would be graded to create numerous breaks in the berm to create multiple flow paths for flood waters to enter the restoration site. Portions of the eastern berm would be retained as dune features where possible, without impeding re-establishment of braided flow onto the restoration site from the floodplain to the east and northeast of the restoration site. Interior non-jurisdictional areas of the restoration site would be graded to provide the opportunity for flood water to flow in braided pattern across the entire restoration site. No soil import or export is anticipated for the restoration project. Berm removal areas are shown Figure 2-6, "Viking Ranch Conceptual Restoration Plan."

The overall site would be graded to be compatible with the surrounding native land surface elevations, setting the top 2 inches of topsoil aside and used for final grade. Rough contour grading of ephemeral channels would take place to create micro-topographic variances as shown on Figure 2-3. The design is intended to re-establish braided flow patterns across the restoration site, consistent with adjacent Coyote Creek wash. It is anticipated that flood flows would naturally create macro- and micro-topographic fluvial features within the restoration site and a diversity of hydrologic and geomorphic conditions, leading to characteristic desert plant communities and animal habitat.

A grade structure is planned to be constructed in the southeast corner of the project where channel incision is beginning to run up into the proposed restoration site. If left unchecked, the head cut would continue to migrate upstream into the restoration site resulting in erosion of the land surface and destabilization of the floodplain. The structure would be constructed of wood timbers and slats to retain the soil on the restoration site. The effect of the structure would be to retain the upstream channel bed to stabilize the head cut that is presently causing unnatural flow and erosion on the site. The structure would be built to withstand water flow over the top, creating a stable bed gradient upstream (within the restoration site) and allowing water to continue flowing to the lower elevation floodplain present downstream.

Long term, the restoration site would once again become part of the wash and would receive hydrologic inputs from the surface flows of Coyote Creek.

Erosion Control: Heavy sediment transport is a typical function of desert washes and flood plains. The intent of the restoration project is to return the former agricultural field into the functional floodplain of Coyote Creek wash. As such, it is expected that sediment would be deposited and exported from the restoration site during flood events. Erosion control best management practices (BMPs) would be used where necessary to maintain normal sediment transport functions while limiting destabilization of the restoration site. In general, the native vegetation established through seeding would provide effective erosion control, however additional BMPs such as burlap encased straw wattles/fiber rolls or burlap gravel bags may be needed, as determined by the Project Biologist and, or Qualified SWPPP Practitioner (QSP). Any recommendations made by the QSP or anyone else for the restoration site would be pre-approved by the Project Biologist. BMPs with nylon netting would not be used in the restoration site. All straw wattles/fiber rolls would be certified free of noxious

weeds. Erosion control seeding may not be applied to restoration site unless pre-approved by the Project Biologist. Non-native seeds would be avoided at all times.

Weed Control and Seed Selection and Application: Weed control would include hand-pulling of weeds, use of hand tools, weed whips, and/or foliar treatments of appropriate herbicides as determined by the Project Biologist. A native seed mix of appropriate desert plant species that are present within the Coyote Creek Wash would be imprinted onto the restoration site.

Avoidance and Minimization Measures: Impacts from fugitive dust that may occur during berm demolition, filling of the diversion ditch, and restoration site grading, would be avoided to the maximum extent practicable and minimized through water application for dust control during grading activities.

A biologist would be on site to oversee installation of temporary fencing, any grading within 100 feet of existing waters of the State to ensure permit compliance (404, other permits for the project), and educate contractors as needed on biological resources associated with the project.

Equipment would be checked for fluid leaks prior to operation and repaired as necessary. A spill kit for each piece of construction related equipment should be on site and must be used in the event of a spill.

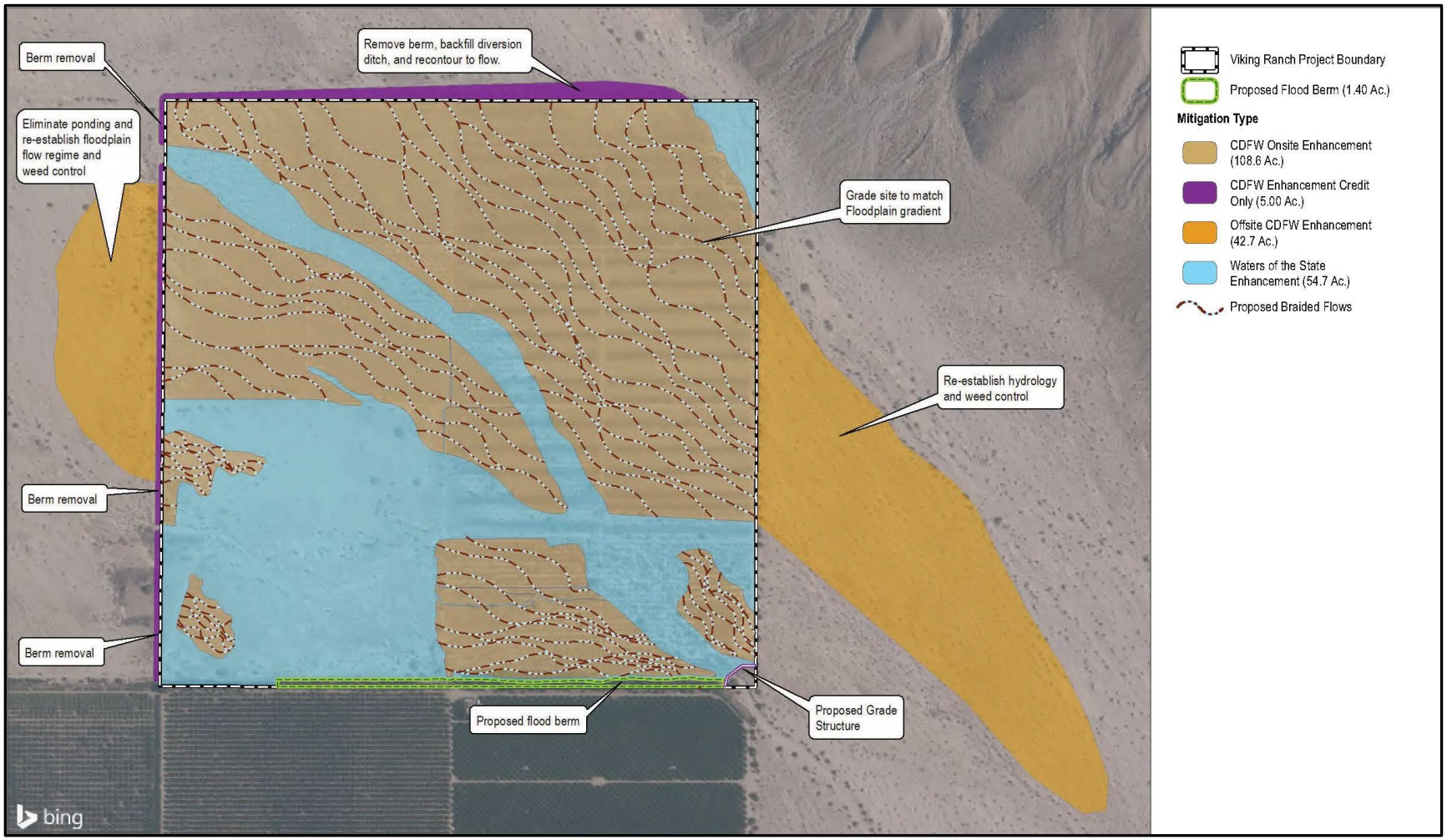
2.7 INTENDED USES OF THE SEIR

2.7.1 Imperial County

It is anticipated that this SEIR will provide environmental review for all discretionary approvals and actions necessary for this project. Permits and approvals would be required before the project could be implemented, although quarrying operations pursuant to the currently effective use permit are anticipated to continue throughout the environmental review process period.

As lead agency for the proposed project, the County is primarily responsible for the approvals required. The primary approval being sought is a Conditional Use Permit for development of a new production well, Well No. 3, and an associated pipeline to provide water to the Quarry. As part of any approval action for the project, the County would be required to certify the final SEIR, adopt findings of fact and overriding considerations (if necessary), and adopt a mitigation monitoring and reporting program. In Imperial County, the County Planning Commission is the approval authority for the Conditional Use Permit, which is an action appealable to the County Board of Supervisors.

Additional land use entitlements from the County are not needed for mining and reclamation activities under the Quarry expansion. However, because Well No. 3 and the associated pipeline would provide water to support Quarry operations, this SEIR evaluates potential environmental impacts associated with mining and reclamation activities under the Quarry expansion, for full disclosure and to provide the appropriate CEQA compliance analysis and mitigation for responsible agencies.



SOURCE: Dudek, 2021; Aerial-Bing Mapping Services, 2018
NOTE: Image has been modified by Benchmark Resources and is not printed to scale.

Figure 2-6
Viking Ranch Conceptual Restoration Plan

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This SEIR also evaluates potential environmental impacts associated with the Viking Ranch restoration and Old Kane Springs Road preservation actions, as proposed in the Habitat Mitigation and Monitoring Plan (Dudek 2022). Although these project components do not require entitlements from Imperial County, this SEIR evaluates the environmental impacts of these actions for full disclosure and to provide the appropriate CEQA review for responsible agencies, which will include major grading permits issued by San Diego County.

2.7.2 Other Agencies Whose Approval May Be Required

In addition to Imperial County approval, other permits and approvals would be required before implementation of the project could proceed. The other agencies whose approval may be required include:

- County of San Diego (Major Grading Permit)
- California Department of Fish and Wildlife (Lake and Streambed Alteration Agreement)
- Colorado River Regional Water Quality Control Board (Construction General Permit Notice of Intent [NOI], Industrial General Permit NOI, Waste Discharge Requirements)

The following public agency approvals have already been obtained:

- U.S. Bureau of Land Management (Right-of-Way Grants [Case file numbers CACA-056908 and CACA-044014)
- U.S. Fish and Wildlife Service (Biological Opinion FWS-ERIV-11B0345-19F1352)

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