

D.3 SUPPLEMENTAL CONDITIONS

Of the Agreement

**Coyote Ridge Open Space Preserve
Groundwater Development Project**

**9611 Malech Road
Morgan Hill, CA 95037**

July 23, 2021

Supplemental Conditions

Purpose

The 1,831-acre Coyote Ridge Open Space Preserve (CROSP) supports rare California serpentine grassland vital to several threatened Bay Area species protected by the Santa Clara Valley Habitat Conservation Plan (SCVHCP), including the Bay checkerspot butterfly, Metcalf Canyon jewelflower, and several amphibian species. Serpentine springs throughout the property provide unique and relatively uninterrupted water supply for serpentine wetland species such as the Mount Hamilton Thistle.

The CROSP is managed by the Santa Clara Valley Open Space Authority (OSA). Management efforts include fencing and management of cattle movement around the property, development of public access and trail network, road erosion control measures, and spring pond habitat enhancement. In collaboration with the Santa Clara Valley Habitat Agency (HA), the OSA is implementing a groundwater development project (Project) at the CROSP to provide water for livestock grazing in areas needing water and to lessen impacts of cattle at in existing habitat-sensitive springs and wetland areas on the property. The Project proposes a) construction of three new water wells each to be set up with a pump, solar power, tank, cattle trough(s), piping and plumbing, b) construction of a hillslope drainpipe setup with a tank, cattle trough, piping and plumbing, and c) upgrading an existing recently-improved spring with a new tank, trough, piping and plumbing.

The OSA seeks to retain a qualified contractor to perform the requested work expeditiously and complete all required tasks by an agreed upon date. The Project includes five construction sites (**Plate 1, Attachment 2**), each comprising site-specific hydrogeologic conditions, construction objectives, and drilling target.¹ Hydrogeologic conditions of the property are summarized in a subsequent section (below). Construction objectives for each site are summarized as follows:

1. Proposed Well #1 site is located at the uppermost limit of Metcalf Canyon, with short access from Metcalf Road on Malech Road, a graded dirt road (**Plate 2**). A 200-ft vertical well (the schematic in **Plate 7**) is proposed to draw on water-bearing bedrock fractures of the mapped diabase intrusion near Silver Creek fault. The depth and final design of the of the well to be modified by California Professional Geologist (PG) in collaboration with the driller based on conditions observed on site during drilling. The water well for Metcalf Motorcycle County Park (DWR No. 074555, **Plate 8**) located at 300 Metcalf Road would be the nearest well drilled in similar rock types. Completed Well #1 to be setup with a pump and solar power capable of supplying 720 gallons per

¹ Backup water-well sites have been identified if the proposed sites are unacceptable for well completion based on observations during pilot hole drilling.

day to a 5,000-gallon storage tank.² One cattle trough at a distance of 100 feet from the tank to be plumbed to the tank and automated to control the supply of water from the well such that neither the well, tank, nor trough shall overflow with water. Piping to be installed on the ground surface, no trenching permitted. 50-ft x 50-ft barbed wire fence to be installed to enclose the well, solar power, and tank area with gate access to Malech Road. Equipment specifications to be proposed by the qualified contractor.

2. Proposed Well #2 site is located about 1.8 miles south on Malech Road from Well #1 site in an upland area needing water for cattle grazing. A 200-ft vertical well is proposed (**Plate 7**) to potentially draw groundwater from water-bearing fractures of serpentine bedrock west of Silver Creek fault. Construction objectives for the well and water supply system described for proposed Well #1 (above) also apply to proposed Well #2 site, as also identified in **Plate 3**.
3. Proposed Well #3 site is in a remote part of the property accessible only by 4x4 trail approximately 1/3 mile south from a rough ranch road that crosses the property from Upper Malech Road to Lower Malech Road. A 200-ft vertical well is proposed, sited on Metcalfe fault, to potentially draw groundwater from water-bearing fractures of serpentine bedrock. Construction objectives for the well and water supply system described for proposed Well #1 (above) also apply to proposed Well #3 site but instead, two cattle troughs to be installed each 200 feet from the tank, as identified in **Plate 4**.
4. A hillslope drainpipe is proposed at Pond #3. The spring supplying Pond 3 discharges from a northeast-southwest oriented gully draining serpentine bedrock above Metcalfe fault. A drainpipe is proposed approximately 200 feet into the gully fracture upstream of the Metcalfe fault. The drainpipe would gravity flow 200 feet to a storage tank and then another 200 feet to a cattle trough, as identified in **Plate 5**. Specifications of the drainpipe and plumbing to be proposed by the qualified contractor. The supply of water from the drainpipe to be controlled such that the tank and trough shall not overflow with water; overflow water shall be discharged to the existing gully at the drainpipe head. Piping to be installed on the ground surface, no trenching permitted. Rig access to the site is via a steep and rough ranch road that crosses the property from Upper Malech Road to Lower Malech Road.
5. (Additive) Upgrading the existing recently-improved spring at the Project 13 site includes a new tank, one new trough, piping and plumbing as identified in **Plate 6**; equipment specifications to be proposed by the qualified contractor. The supply of water from the spring to be controlled such that the tank and troughs shall not overflow with water; overflow water shall be discharged at the spring. Piping to be installed on the ground surface, no trenching permitted. No well drilling or spring-source improvements

² The maximum day demand of 60 head of cattle at 12 gallons per day per head is 720 gallons per day, which is equivalent to 0.5 gallons per minute continuous pumping or 0.8 acre-feet per year.

are requested at this construction site. The existing water trough is proposed to be retained in use with the upgraded system. The site is off-road accessible by 4x4 vehicle approximately 1,000 feet south from rough ranch road that crosses the property from Upper Malech Road to Lower Malech Road.

1. LOCATION AND SITE CONDITIONS

The 1,831-acre CROSP property comprises nine parcels: APN 627-11-009, APN 627-14-011, APN 729-53-001, APN 729-53-002, APN 729-53-003, APN 729-53-004, APN 729-54-002, APN 729-54-003, and APN 729-54-004.

- Proposed Well #1 site is on APN 627-11-009.
- Proposed Well #2 and Well #3 sites are on APN 729-53-002.
- Pond #3 and Project #13 sites are on APN 729-53-003.

The property is located on Malech Road, north from the Bailey Avenue exit from Highway 101. The address for the property is 9611 Malech Rd, Morgan Hill, CA 95037.

The property exists within an open space setting accessed by Malech Road at the property boundaries. In general, the property slopes steeply southwestward from about the 1,300-ft elevation contour along upper Malech Road, a graded dirt road near Silver Creek fault to about the 400-ft contour at Cayote Creek fault and lower (paved) Malech Road (**Plate 1**). Water should be provided by the contractor and will not be available on site. **Plates 2 through 6** identify the contractor's work area for each construction site. All drilling fluids and cuttings must be contained on the site within the contractor's work area, while development water may flow to field areas extending beyond the contractor's work area as specified in **Plates 2 through 6**.

2. HYDROGEOLOGIC CONDITIONS

CROSP overlies a massive exposure of the Coast Range ophiolite rock complex, comprising uplifted hydrothermally altered ultramafic-igneous basement rocks, originating from the ocean crust and underlying mantle. Rock outcrops found on CROSP are primarily various alterations of serpentinite (sp) and diabase (db) of late Jurassic and Cretaceous age. Small portions of CROSP, mainly along the east boundary, extend onto Pleistocene age sediments (largely gravel deposits) of the Santa Clara Formation (QTs). Surface geology at CROSP is identified on geologic maps of the Morgan Hill Quadrangle (Dibblee and Minch, 2005; Dibblee, 1973).

Bound on its east by the Silver Creek thrust fault and on its west by the Coyote Creek trust fault, the ophiolite complex underlying CROSP is found at the southernmost portion of the Hayward fault zone, where it is truncated by the Calaveras fault. In addition to the hydrothermal alteration and a high degree of folding and lamination of ophiolitic rocks, characteristics of a broad zone of deformation, in general, is found at CROSP. Furthermore, in addition to the upward trust of the ophiolite complex, the zone (as a whole) has undergone at least 43 km of right-lateral offset and

a large but still unmeasured amount of compressional deformation (Graymer and others, 1995). Given the overall deformation of the bedrock, groundwater occurrence and flow at CROSP vary from site to site but are generally related to some level of bedrock faulting and fracturing.

Soils at CROSP are generally clayey or clay loam, well drained with medium to very high runoff. Where clayey, after cracks swell shut, permeability is slow. Areal recharge to groundwater from rain broadly occurs across gentler slopes at higher elevation, especially where enhanced by bunchgrass communities and burrowing animal activities. On steeper slopes and shallow soils infiltration is slow to very slow with high to very high runoff potential, which would tend to limit groundwater recharge in these areas. As with the streams, groundwater within bedrock fractures and folds would flow in a general southwestward direction but would also generally accumulate behind faults, elevate groundwater levels, and support surface flow. Seep areas adjacent to rock outcrops may persist for several months after the end of the rainy season, and many springs are perennial. Many landslides are mapped across CROSP, which are generally related groundwater discharge and to major drainages. Some landslides are also oriented to the Metcalfe fault and other unnamed faults obliquely crossing CROSP.

3. WORK COVERED BY CONTRACT DOCUMENTS

Work includes the furnishing of all materials, labor, equipment, fuel, tools, transportation, and services for drilling, construction, development, testing, and completion of a water supply well as described in these specifications including all tasks described in B.1 above.

4. DRILLING METHOD

The wells 1, 2, and 3 shall be drilled by air rotary drilling method with drilling equipment of sufficient capacity to drill and complete the well as specified to a depth of approximately 200 feet. Given field conditions during air rotary drilling and as agreed by OSA, the Contractor shall also mobilize to the site mud rotary drilling equipment with the capacity include a self-contained fluid system capable of removing solids (including fine sand) from the fluid prior to recirculation downhole. Given site conditions and as agreed by OSA, the Contractor may drill using a high-torque auger rig where applicable and recommended by the Contractor. The method used to install the drainpipe at Pond 3 site shall be proposed by the qualified contractor and agreed upon by OSA.

5. LOST HOLES

The following provides clarification between what shall be considered a hole abandoned for cause, and a defective hole:

1. Holes Abandoned for Cause: If the Owner's Technical Representative (OTR) determines that for reasons beyond the control of the Contractor it is necessary to stop

drilling, or the hole is lost before the objective or desired depth is reached and further attempts to save or complete the hole are not practical, the hole will be ordered abandoned for cause. The Contractor shall fill and plug the borehole. The Contractor will be reimbursed for the footage drilled and other operations and for moving to an alternative location.

2. Defective Holes: If the OTR determines that the hole is lost due to negligence, incompetence, or malpractice on the part of the Contractor or his personnel, or to the use of defective or unsuitable equipment, he will immediately notify the Contractor in writing of his decision and order the hole abandoned. If a hole does not meet the requirements set forth herein, or if the Contractor fails to drill a hole to the depth specified by the OTR within the scope of the Contract, the hole will be declared abandoned. Any hole that cannot be corrected to the required tolerance for alignment will be declared abandoned. The Contractor, at his own expense, shall fill and plug the hole(s). The Contractor shall drill a new hole at an alternate site in the immediate area approved by the OTR. The Contractor will not be paid for any footage drilled or for other operations performed in any hole abandoned because of defects.

6. CONSTRUCTION SCHEDULE

There will be no restrictions on the schedule with respect to work hours or workdays. However, once drilling begins, work shall proceed on a consecutive-day basis continuously, and without interruption until airlift development is complete.

7. CONTRACTORS USE OF SITE AND OWNERS CONTINUED OPERATIONS

- A. The Contractor shall confine his use of the site for work and storage to the Work Area Limits shown in the contract documents. The Contractor's use of adjacent lands and roads for access to move onto and off of the site and for daily access of workers, material and equipment shall be arranged and scheduled to minimize interference with the Owner's continued operations and impact to the public.
- B. The Contractor shall prepare the site to conditions suitable for the work required under this contract including clearing, removal and disposal of vegetation.
- C. The Contractor shall provide temporary tanks for the containment of drilling fluids and initial development water. Drilling fluids displaced from the borehole either through the thinning of the mud or by displacement during well construction, and the initial, turbid water removed from the well during development, shall be disposed in the designated area shown on **Plates 2 through 6**. The Contractor shall provide piping/hoses to direct fluids to the onsite disposal area. Contractor will take appropriate measures (berming, hay bales, waddles, etc.) to retain fluids in the disposal area. The proposed plan for onsite water disposal shall be discussed and agreed upon at the pre-construction meeting. Drill cuttings may be disposed of onsite at a location to be identified by the owner. It will be the Contractor's responsibility to transport the cuttings to the disposal location.

- D. Water produced during well development and testing shall become the property of the Contractor and shall be disposed offsite.

8. HELICOPTER USE

A helicopter may be used to deliver project materials to the site and may be preferred to help prevent excess wear on the access roads. Please include a statement about whether a helicopter is available to you and your team or if you would recommend using one for this project. For purposes of producing comparable bids, please do not include costs in the bid form, but may be provided elsewhere.

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Attachment 1 – Technical Specifications

WELLS #1, #2, AND #3, POND 3 DRAINPIPE, AND PROJECT 13 UPGRADE

1.01 – MOBILIZATION (BID ITEM NO. 1).

Mobilization shall consist of all preparatory work and materials necessary for construction operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; control of water; site leveling; and all other facilities necessary for work on the project and for all other work and operations which must be performed, or cost incurred prior to beginning work on the various Contract items on the project site.

The Contractor shall provide a complete drilling unit, all tools, accessories, power, fuel, materials, supplies, lighting, tanks, piping, and other equipment and experienced personnel necessary to conduct efficient drilling operations. Contractor shall supply sanitation facilities for use of his personnel. The drilling unit shall be in good condition and of such capacity as to drill the hole and complete a well as required by these Specifications to a depth of approximately 300 feet.

Mobilization shall also include attendance of the all project personnel for the preconstruction meeting. Contractor shall contact Underground Service Alert (USA) at least 48-hours prior to mobilization.

- Payment for mobilization shall be made at the lump sum price bid for ***“Mobilization”, Bid Item No. 1.***

1.02 – WELL PERMIT (BID ITEM NO. 2).

The Contractor is responsible for obtaining a well permit from the Valley Water and Santa Clara County Health Department, Environmental Health Division (EHD), prior to mobilization to the site. The Contractor is also responsible for compliance with all permit conditions, including preparation and submittal of permit compliance documentation (including DWR Well Completion Report).

- Payment for the Well Permit shall be made at the lump sum price for ***“Well Permit” - Bid Item No. 2.***

1.03 – PILOT BORING DRILLING (BID ITEM NO. 3).

The Contractor shall drill a 9-inch diameter pilot bore (nominal) to a depth of 200 feet below ground surface. The stability of the near surface materials is the responsibility of the Contractor. The Contractor may opt to use a shallow temporary conductor for convenience. The pilot bore may be drilled by either direct or reverse-rotary rotary drilling method. Drilling with compressed air is preferred by Owner. If drilling with fluid is required based on site conditions, then the drilling fluid may be either polymer based or a clay-based

bentonite system. The Contractor's fluid system shall be capable of removing solids and conditioning the fluids prior to re-circulation down the hole. The fluid system shall be described at the pre-construction meeting and is subject to OTR approval prior to mobilization.

The Contractor must always provide at the drilling site Standard API measurement devices in proper working order to determine the following drilling fluid properties:

- Drilling fluid weight
- Drilling fluid viscosity
- Drilling fluid sand content
- 30 minute water loss/filter cake (not applicable for polymer based fluid systems).

The above properties of the drilling fluid entering the mud pump or leaving the circulation tank must be recorded by the contractor at a minimum of 20-foot intervals during the drilling of the pilot hole. The drilling fluid shall have the following properties:

- Weight - a maximum of 9.0 pounds per gallon during all aspects of drilling.
- Marsh Funnel Viscosity – a maximum of 40 seconds during all aspects of drilling.
- Sand Content - a maximum of two percent by volume during all aspects of drilling.
- Water Loss - a maximum of 10 ml. Wall cake thickness shall be no greater than 3/32-inch.

The Contractor must record and provide the following information for the well:

- A log of drilling bit types and depths at which drill bit changes are made.
- A log of the cuttings, providing the depths and descriptions of the earth materials encountered. The Contractor shall collect cutting samples at 10-foot intervals during the drilling of the pilot boring. Samples shall be placed in "zip-lock" plastic bags and labeled with well name, sample depth interval, and date.

All measurements for depths shall be referenced to existing ground surface at the well site. All drilling records shall be delivered to the OTR upon completion of the well.

Contractor must follow State and County requirements for borehole abandonment.

- Payment for the pilot bore drilling shall be made at the unit price bid per linear foot for ***“Pilot Bore Drilling” - Bid Item No. 3.***
- After review of the cuttings samples and the geophysical log of the pilot bore, the OTR may opt to require additional pilot bore drilling. As part of the Contractor's bid, a linear foot cost for additional pilot bore drilling shall be provided (***“Additional Pilot Bore Drilling” - Bid Item No. 3a.***)

1.04 – GEOPHYSICAL LOGGING (BID ITEM NO. 4).

The Contractor shall furnish a geophysical log of the pilot bore and shall assist with the geophysical logging as necessary. The geophysical log shall include the following surveys: spontaneous potential and 16- and 64-inch resistivity surveys; a natural gamma survey; a caliper survey; and acoustic televiewer survey. The Contractor shall furnish a fracture analysis of the televiewer log, identifying the strike and dip of logged fractures. Two field and two final paper copies of the geophysical log shall be provided. In addition, the geophysical log shall be provided in both LAS and Adobe PDF format on either a portable memory device or on Compact Disc.

If the logging probe fails to descend to the desired depth, the Contractor, at his own expense, shall condition the hole to permit the logging probe to descend to the bottom of the hole.

- Payment for the geophysical log shall be made at the lump sum price for ***“Geophysical Logging” - Bid Item No. 4a.***
- Should additional pilot bore drilling be required, the Contractor shall provide a geophysical log of the additional pilot bore. The additional geophysical log shall include the same measurements as recorded on the first geophysical log. A lump sum cost for an additional geophysical log shall be provided on the project bid sheet for ***“Additional Geophysical Logging” - Bid Item No. 4b.***

1.05 – WELL CASINGS AND SCREENS (BID ITEM NOS. 5a and 5b)

The Contractor shall furnish all materials and work necessary to manufacture, deliver, and install the blank well casing and the well screen with end cap, as listed in the table below and shown on **Plate 7**. The casing shall consist of 5-inch diameter, PVC casing with bell and spigot or “Certalok” style connections. The casing schedule is shown in Table 1 each for Wells 1, 2, and 3:

Table 1: Casing Schedule each for Wells 1, 2, and 3

Quantity (Linear Feet)	Item	Bid Item No.
100	5-INCH-DIAMETER, SDR-21 PVC BLANK CASING.	5a
100	5-INCH-DIAMETER, SDR-21 PVC WELL SCREEN, 0.032-INCH LOUVERS SCREEN.	5b

Casing material is PVC as described in Table 1. All plastic casing shall meet the provisions of National Sanitation Foundation Standard No. 14, Plastic Piping Components and related Materials and any revision thereof. The casing shall be marked or labeled following requirements in NSF Standard No. 14. Standard No. 14 includes the requirements of ASTM F480. All casing materials shall be new.

Plastic casing may be joined by solvent welding or mechanically joined by threads or other means, depending on the type of material and its fabrication. Solvent cement used for solvent welding shall meet NSF 61 compliance specifications for the type of plastic casing used. Solvent cement shall be applied in accordance with solvent and casing manufacturer instructions. Particular attention shall be given to instructions pertaining to required setting time for joints to develop strength.

The following specifications for solvent cements and joints for PVC casing shall be met, including the latest revisions thereof:

- a. *ASTM D2564*, Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.
- b. *ASTM D2855*, Standard Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.

Plastic casing or screen shall not be subjected to excessive stress during installation and shall not be driven into place. Care shall be taken to ensure that plastic casing and joints are not subjected to excessive heat from cement-based sealing material.

The casing and screen shall be plumb and shall be centered in the hole. Casing centralizers shall be attached to top and bottom of screened intervals and at intervals of not more than 60 feet in blank casing. The casing shall be suspended in tension from the surface by means of an appropriate hanger or clamp. The bottom of the casing shall be at a sufficient distance above the bottom of the reamed hole to ensure that none of the casing will be supported from the bottom of the hole.

If, for any reason, the casing cannot be landed in the correct position or at a depth acceptable to the OTR, or any portion of the casing should collapse prior to well completion, the Contractor shall remove the casing from the borehole, perform a wiper run, and reinstall the casing to the desired depth. Should it not be possible to install the casing in the borehole after the wiper run, the Contractor shall construct another well immediately adjacent to the original location and complete this well in accordance with the specifications at no additional cost. The abandoned hole shall be sealed in accordance with directions from the OTR and in accordance with any laws pertaining to proper well destruction (California Water Well Standards Bulletins 74-81 and 74-90). All work required to be repeated and all additional materials, labor, and equipment required, shall be furnished at the expense of the Contractor and no claim for additional compensation shall be made or be allowed, except as specifically provided herein.

- Payment for the well casing and screens, and installation of the well casing and screens, shall be made at the unit price bid per linear foot for ***“5-Inch-Diameter SDR-21 PVC Blank Well Casing - Bid Item No. 5a, and 5-Inch-Diameter SDR-21 PVC Well Screen - Bid Item No. 5b”***

1.06 – GRAVEL PACK (BID ITEM NO. 6).

At each Well 1, 2, and 3, gravel pack shall be installed in the annulus between the depths 50 feet and to the bottom of the well. All gravel or coarse-grained sand for packing shall be hard, water worn, and washed clean of silt, fine sand, clay, and foreign matter. Gravel pack shall be provided by Silica Resources, RMC, or an approved equal. An approximate 8 x 16 gradation shall be used. The gravel pack material proposed for use by the Contractor shall be subject to the approval of the OTR prior to delivery to the site. The gravel pack material, if stockpiled at the well site, shall be in bags, supersacks, or otherwise protected and kept free of all foreign matter.

Prior to placement of the gravel pack in the well, the drilling fluid shall be thinned and balanced. Gravel shall be installed in the annular space between the reamed hole and the well screen through a construction tremie pipe. During placement of the gravel, disinfectant (e.g., sodium hypochlorite) shall be added to the gravel at a uniform rate and in accordance with DWR Bulletin 74-81. Fluids displaced from the well casing and annulus during gravel packing operations shall be controlled and directed to on-site disposal area. The final depth to the top of the gravel pack shall be verified by measurement with a sounding line, or other method acceptable to the OTR.

After placement of the gravel pack, 2-feet of bentonite pellets (Hole-Plug) shall be placed on top of gravel pack. Cost for bentonite seal will be included in “Gravel Pack.”

- Payment for the gravel pack shall be made at the unit price bid per linear-foot for ***"Gravel Pack" - Bid Item No. 6.***

1.07 – CEMENT GROUT (BID ITEM NO. 7).

At each Well 1, 2, and 3, a cement grout annular seal for the well shall be provided between the ground surface and a depth of 50 feet. Cement grout shall be composed of not more than 3 cubic feet of sand and 1 cubic foot (one sack) of Portland cement to 5 to 7 gallons (0.67 to 0.90 cubic feet) of clean water. This is typically considered to be a 10-sack Portland cement sand slurry mix when ordered from batching plants. **Contractor is encouraged to add retardant and/or bentonite (up to 5%) to sealing material to reduce the heat of hydration. Contractor is also encouraged to keep casing full of fluid during sealing operations and curing. Risk of casing collapse will be borne solely by Contractor.**

Cement grout shall be placed in the annular space between the well casing and borehole from bottom to top by means of a tremie pipe. Cement grout material shall be placed by the positive displacement pumping method. Grout shall be placed from bottom to top in one continuous operation. Fluids displaced from the annulus during sealing operations shall be contained directed to on-site disposal area

Sealing materials and sealing operations shall be in compliance with DWR Standards, Valley Water, and Santa Clara County EHD permit conditions.

- Payment for the cement grout shall be made at the unit price bid for "***Cement Grout***" - ***Bid Item No. 7.***

1.08 – WELL DEVELOPMENT (BID ITEM NO. 8)

The completed well shall be developed by air-lifting. Airlift pumping and swabbing shall be performed throughout the entire length of the well screen, until water produced within each airlift depth interval is relatively clear. For bidding purposes, the Contractor shall assume 4 hours of swabbing and airlift pumping at each well (12 hours total).

- Payment for well development and testing shall be made at the bid prices for: "***Well Development, Swabbing/Airlifting***" - ***Bid Item No. 8***". Payment for additional development shall be made at the unit bid price.

1.09 – DRAINPIPE ABOVE POND 3 (BID ITEM NO. 9).

The Contractor shall install a drainpipe into the hillslope at the spring above Pond #3. The method of installation, specifications of the drainpipe, and plumbing shall be proposed by the qualified contractor. For bidding purposes, the Contractor shall assume a 200-ft, 2-inch diameter HDPE, slotted drainpipe, installed.

- Payment for the chlorination shall be made at the lump sum price for "***Pond 3 Drainpipe***" - ***Bid Item No. 9.***

1.10 – SITE CLEANUP (BID ITEM NO. 10)

The Contractor shall keep the premises free from accumulations of waste materials, rubbish, and other debris resulting from the work. At completion of the work at each of the five construction sites, the Contractor shall remove all waste materials, rubbish, and debris from and about the well site as well as all tools, construction equipment, fuel tanks, machinery, and surplus materials. The Contractor shall also restore the pre-existing grade at each of the five construction sites. The OTR will be the sole judge who determines when clean up efforts can be considered to be sufficient and complete.

- Payment for site cleanup shall be made at the lump sum price for "***Site Cleanup***" - ***Bid Item No. 10.***

1.11 – STANDBY TIME (BID ITEM NO. 11)

During the progress of drilling operations, it may be necessary for the OTR to perform work that will require the drilling crew and equipment to stand idle. In such event, the OTR shall request the Contractor in writing to cease operations and shall state the anticipated extent or duration thereof. The Contractor shall promptly furnish such assistance and cease operations. For bidding purposes, the Contractor shall assume 8 hours of standby time.

Santa Clara Valley Open Space Authority
Coyote Ridge Open Space Preserve Groundwater Development Project
Attachment 1. Technical Specifications

- Payment for standby time will be paid on an hourly rate for ***“Standby Time, Bid Item 11”***, in accordance with the actual hours approved by the OTR. In no case shall standby time be approved for Contractor equipment failures or delays caused by waiting for Contractor's equipment or materials deliveries.

1.12 – PUMP AND SOLAR POWER (BID ITEM NO. 12)

At each completed well 1, 2, and 3, the Contractor shall provide specifications for approval by OSA and install a pump, downpipe, pump saver, solar power, wires, controls, and well cap. Minimum capacity of the water system at each well shall be 720 gallons per day. Solar power shall operate only when sun is shining and not include batteries.

- Payment for site cleanup shall be made at the lump sum price for ***“Pump and Solar Power” - Bid Item No. 12.***

1.13 – BARBED WIRE FENCING (BID ITEM NO. 13)

Upon completion the wells and installation of the water systems, the Contractor shall install a 50 ft x 50 ft barbed wire fence control area around each well site, enclosing the well, solar panel, tank, and controls as identified for each site in Section 01010. The barbed wire fence shall be installed per design and specifications indicated in Attachment 3.

- Payment for site cleanup shall be made at the lump sum price for ***“Barbed Wire Enclosure” - Bid Item No. 13.***

1.14 – TANK AND TROUGHS (BID ITEM NO. 14)

At each of the five construction sites, the Contractor shall install a 5,000-gallon green HDPE vertical water tank, 500-gallon concrete water trough(s), 1.25-inch HDPE connecting pipe, and water-level control valves and floats as identified for each site in Section 01010.

The base for the tank and troughs shall be leveled and surfaced with four inches (minimum) of compacted pea gravel. The base shall be smooth, firm, and not contain rocks, sticks, or other material than can penetrate the tank floor. The base shall be framed with creosote treated lumber (or similar) for long life and extend one foot (minimum) beyond the tank and trough floor.

Wells and troughs shall be plumbed to the tank with 1.25-inch HDPE pipe and automated with valves and floats to control the supply of water from the well such that neither the well, tank, nor trough shall overflow with water. The Contractor shall furnish plumbing details for approval by OSA. Piping to be installed on the ground surface, no trenching permitted. A wildlife escape ramp shall be installed in each trough.

- Payment for installation of the tanks, piping, troughs, and controls shall be made at the unit price bid for ***“5,000 Gallon Water Tank - Bid Item No. 14a, 500 Gallon Concrete Water Trough - Bid Item No. 14b, 1.25-inch ID HDPE Pipe - Bid Item No. 14c, and Water-Level Control Valves and Floats - Bid Item No. 14d”***

1.15 –ACCEPTANCE OF WORK (BID ITEM NO. 15)

Acceptance of the work by the owner shall be conditioned on the following criteria:

- 1) Ability to install and remove appropriately sized pump to depth of 200 feet without restriction.
- 2) Accepted closure of well permits.
- 3) Level installation of tanks and troughs and proper functioning of water systems as identified for each site in Section 01010.
- 4) Barbed wire fencing installed to specifications.
- 5) Site is cleaned up as described in Section 1.10 above.

At discretion of OTR, the successful installation and removal of test pump can be used to comply with condition 1 above.

- Well acceptance activities will be paid as a lump sum under ***“Well Acceptance, Bid Item 12”***.

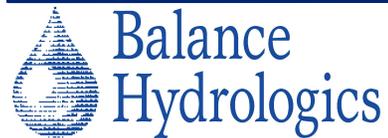
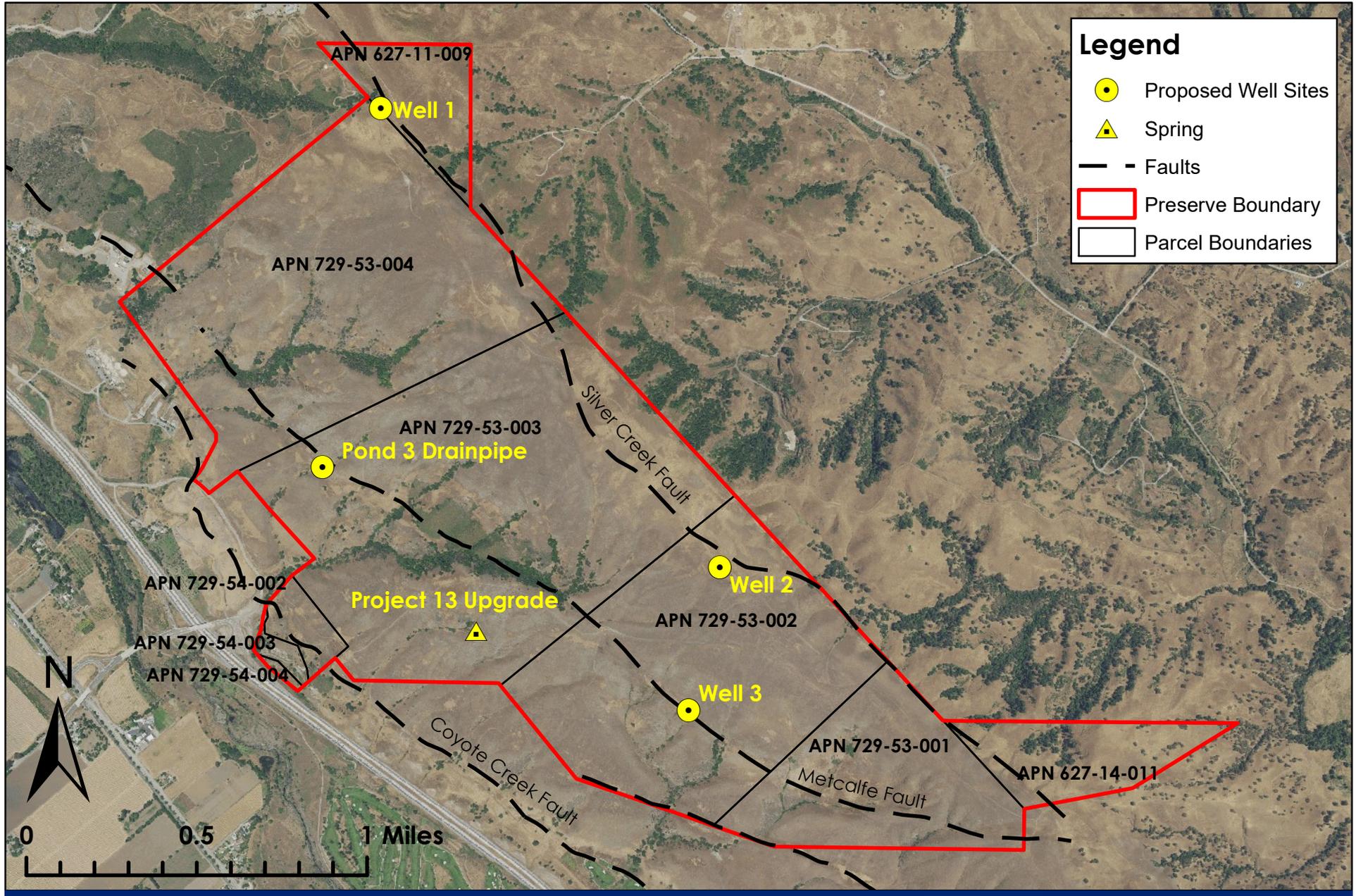
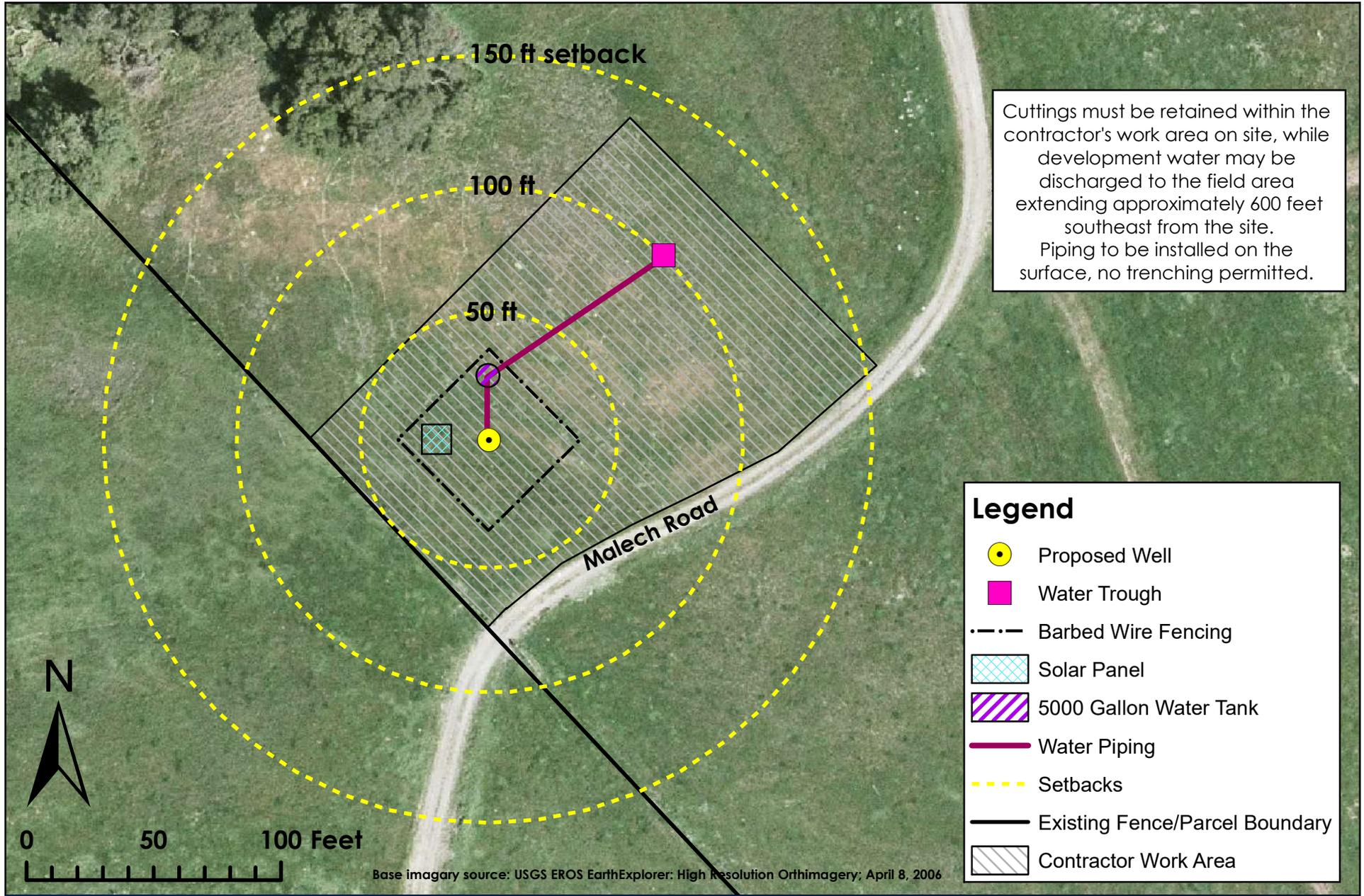


Plate 1. Locations of proposed work to supply water for grazing livestock, Coyote Ridge Open Space Preserve, Santa Clara County, California.

Base imagery source: National Agriculture Imagery Program; 2016



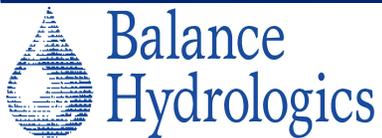
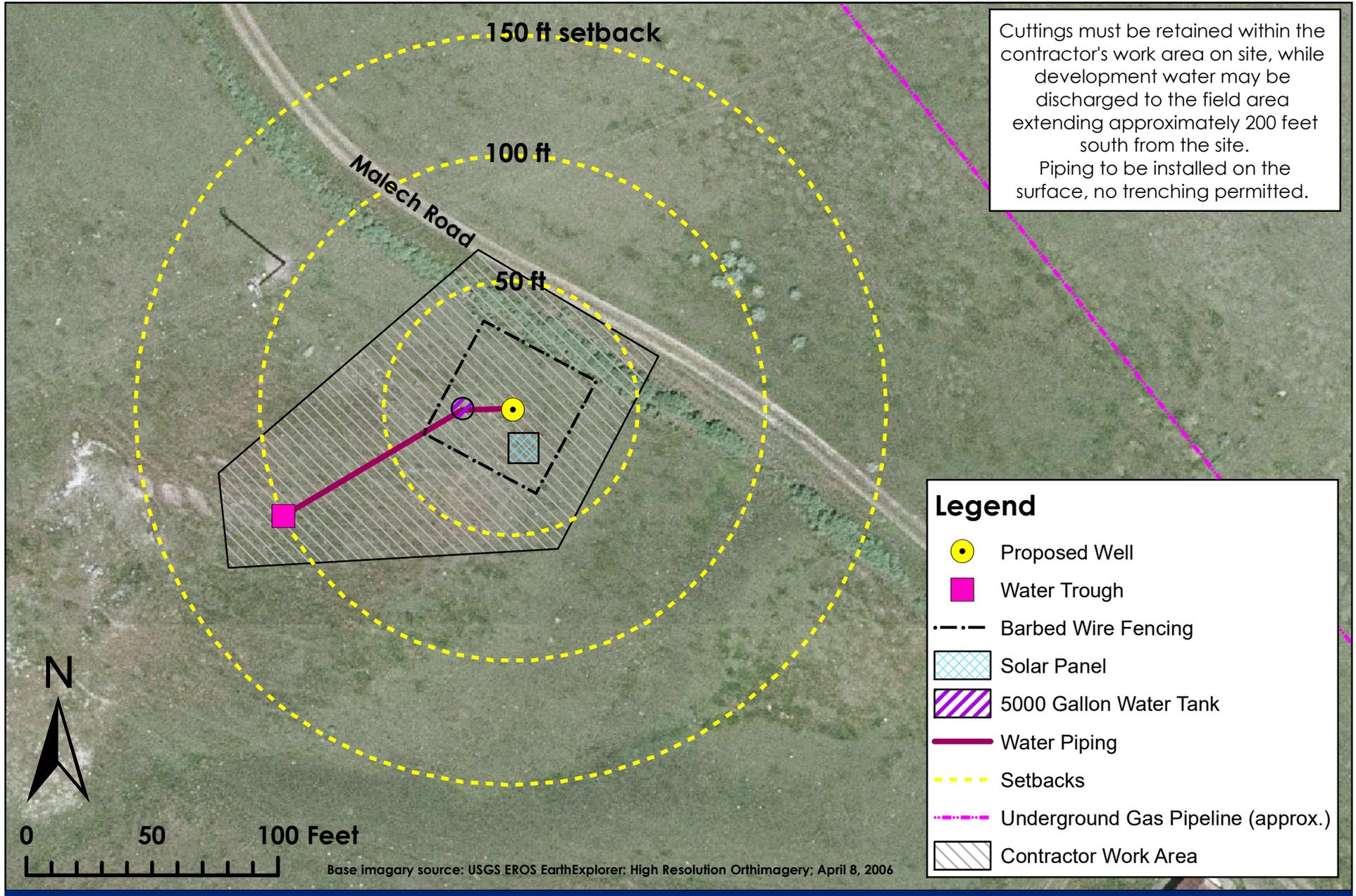
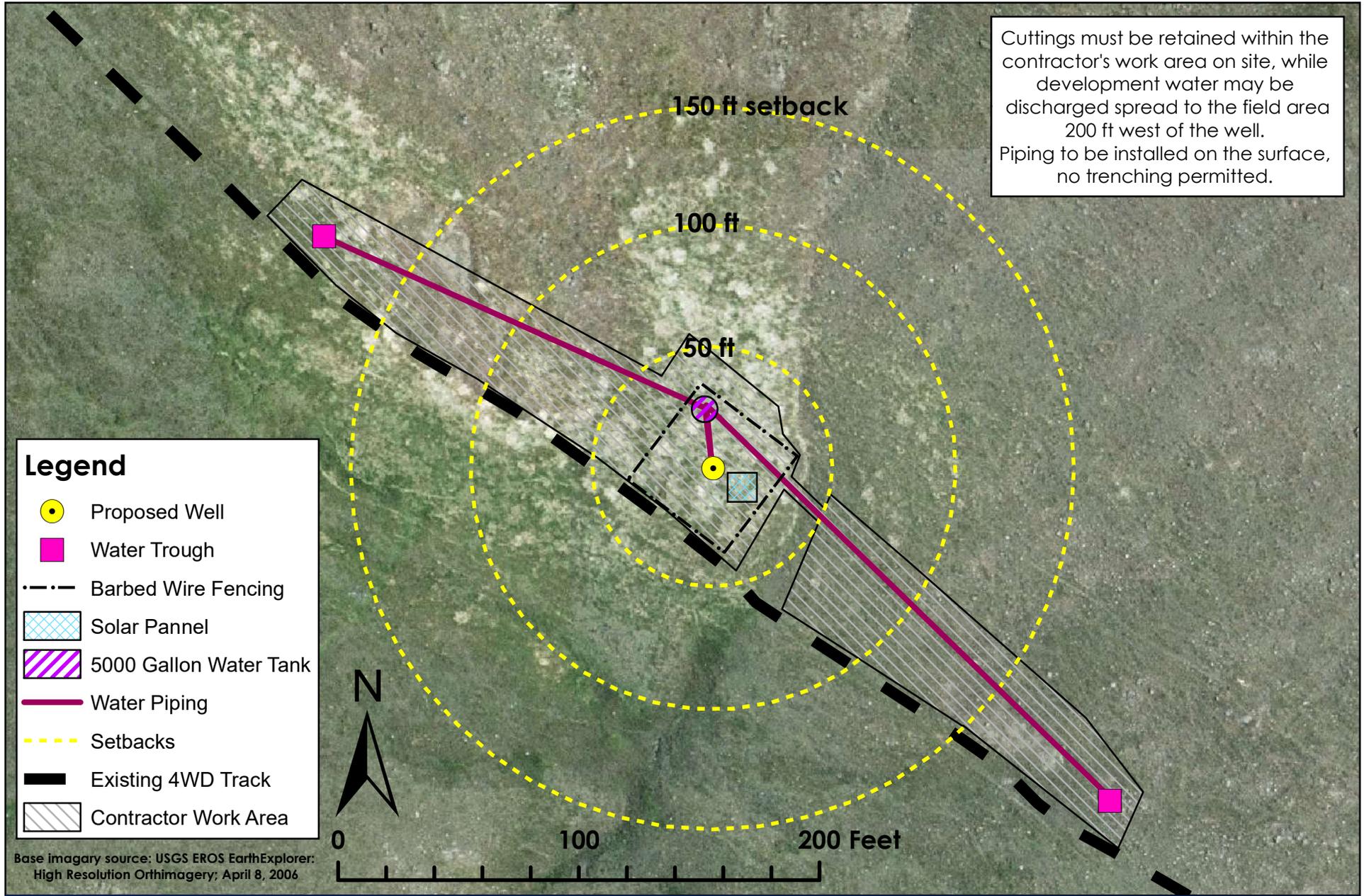


Plate 3. Location of proposed Well #2 for grazing livestock at APN 729-53-002, Coyote Ridge Open Space Preserve, Santa Clara County, California. State and County minimum setbacks include: a) 50-ft horizontal separation from any sewer line (sanitary, industrials or storm main or lateral); b) 100-ft horizontal separation from watertight septic tank or subsurface sewage leaching field; c) 100-ft horizontal separation from animal or fowl enclosure; and 150-ft horizontal separation from cesspool or seepage pit.



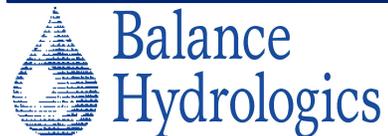
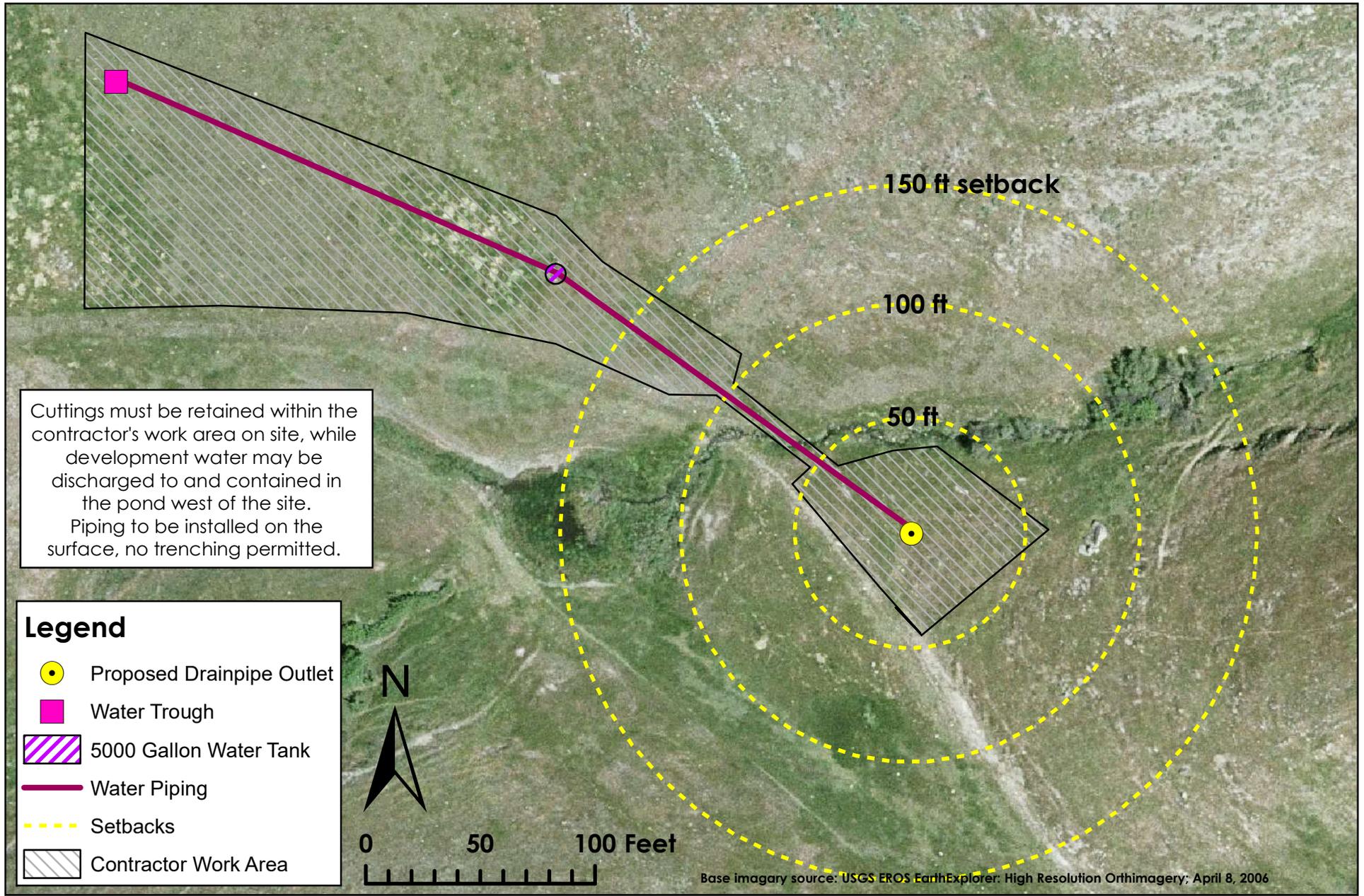
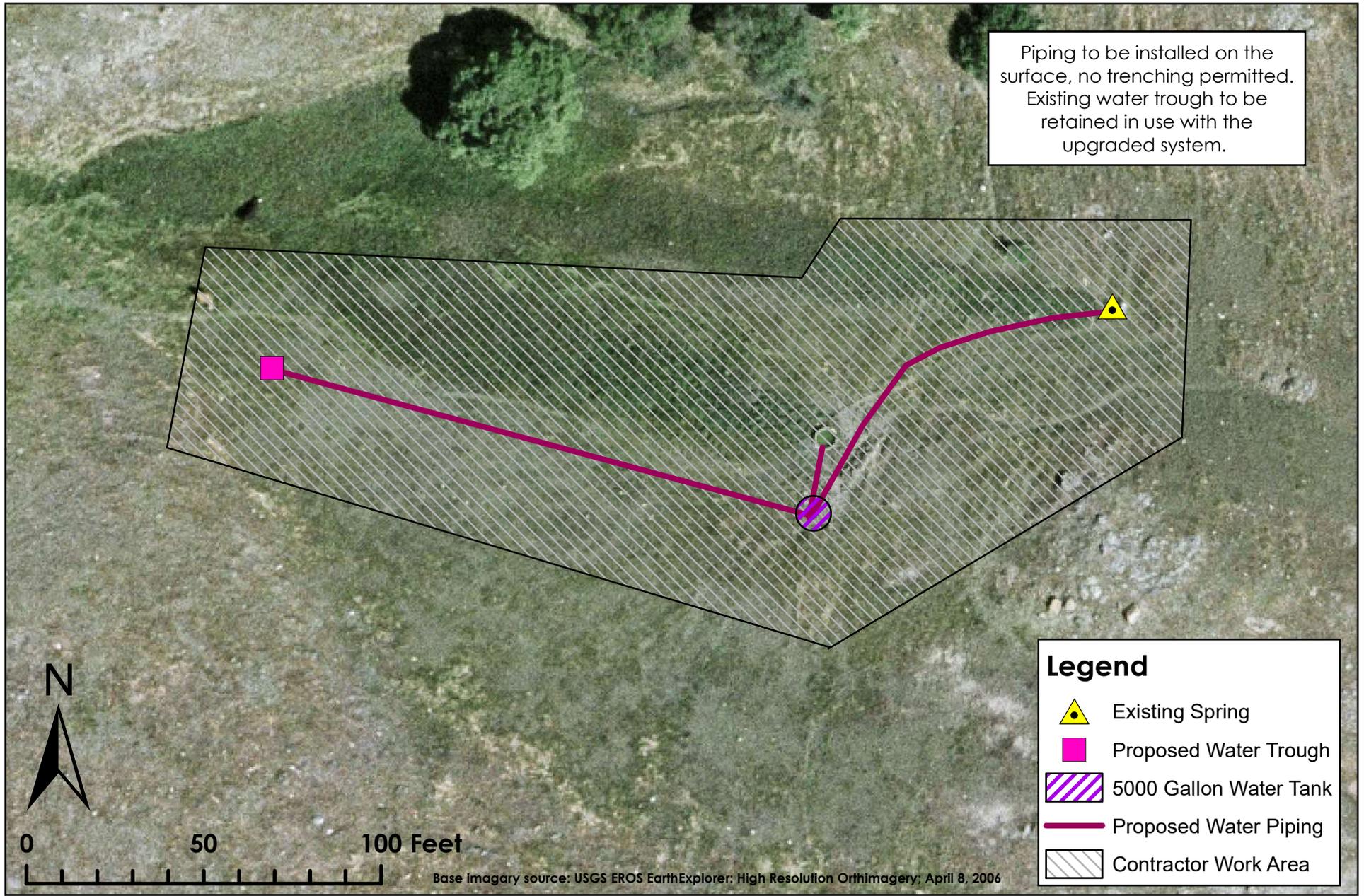
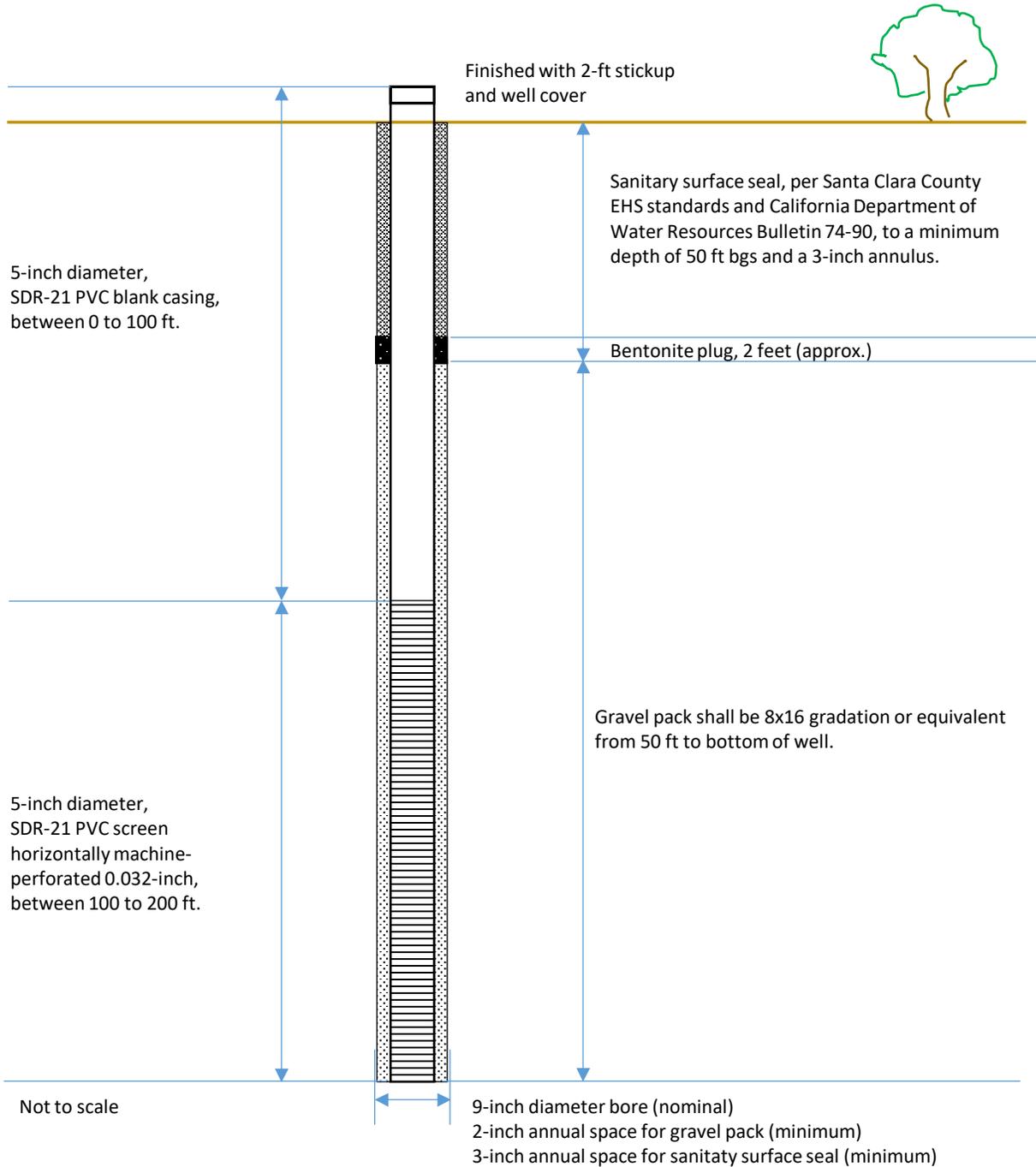


Plate 5. Location of proposed drainpipe at Pond #3 for grazing livestock at APN 729-53-002, Coyote Ridge Open Space Preserve, Santa Clara County, California. State and County minimum setbacks include: a) 50-ft horizontal separation from any sewer line (sanitary, industrials or storm main or lateral); b) 100-ft horizontal separation from watertight septic tank or subsurface sewage leaching field; c) 100-ft horizontal separation from animal or fowl enclosure; and 150-ft horizontal separation from cesspool or seepage pit.





Notes:

- 1) Casing and screen shall be solvent welded, and centered within the borehole using centralizers.
- 2) Tentative design. Final design to be modified by California Professional Geologist based on conditions observed on site.

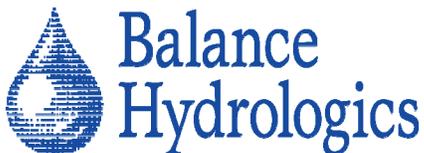


Plate 7. Schematic for proposed wells 1, 2, and 3 at Coyote Ridge Open Space Preserve, Santa Clara County, California.

ORIGINAL

File with DWR

BR

no permit #s

852E

STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES

WATER WELL DRILLERS REPORT

Do not fill in

No. 074555

Notice of Intent No.

Permit No. or Date 79WD123

State Well No. 0852E13

Other Well No.

(1) OWNER: Name

Address

City

(2) LOCATION OF WELL (See instructions):

County Santa Clara Owner's Well Number

Well address if different from above

Township Range Section

Distance from cities, roads, railroads, fences, etc.

Motorcycle Park
Metcalf Road

(12) WELL LOG: Total depth 200 ft. Depth of completed well 182 ft.

from ft. to ft. Formation (Describe by color, character, size or material)

0 - 1 Top Soil

1 - 50 Brown Shale & Clay

50 - 120 Brown Shale & Green Rock

120 - 200 Black Shale & Rock

(3) TYPE OF WORK:

New Well Deepening

Reconstruction

Reconditioning

Horizontal Well

Destruction (Describe destruction materials and procedures in Item 12)

(4) PROPOSED USE:

Domestic

Irrigation

Industrial

Test Well

Stock

Municipal

Other

WELL LOCATION SKETCH

(5) EQUIPMENT:

Rotary Reverse

Cable Air

Other Bucket

(6) GRAVEL PACK:

Yes No Size 3/16

Number of bore 3/4

Packed from 50 to 182

(7) CASING INSTALLED:

Steel Plastic Concrete

(8) PERFORATIONS: Slot

Type of perforation or size of screen

From ft.	To ft.	Dia. in.	Gauge or Wall	From ft.	To ft.	Slot size
0	182	5	160	82	182	1/8 x 3

(9) WELL SEAL:

Was surface sanitary seal provided? Yes No If yes, to depth 50 ft.

Were strata sealed against pollution? Yes No Interval _____ ft.

Method of sealing Grout

(10) WATER LEVELS:

Depth of first water, if known 55-70 ft.

Standing level after well completion 40 ft.

(11) WELL TESTS:

Was well test made? Yes No If yes, by whom Maggiora Bros

Type of test Pump Bailer Air lift

Depth to water at start of test _____ ft. At end of test _____ ft.

Discharge 40-50 gal/min after _____ hours. Water temperature _____

Chemical analysis made? Yes No If yes, by whom?

Was electric log made? Yes No If yes, attach copy to this report

Work started 6-7 1978 Completed 6-7 1978

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief

SIGNED: *Martin Maggiora* (Well Driller)

NAME: Maggiora Bros. Drilling, Inc.

(Person, firm, or corporation) (Typed or printed)

Address: 595 Airport Boulevard

City: Watsonville, CA Zip: 95076

License No. C-57-249957 Date of this report Oct. 2, 1978

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

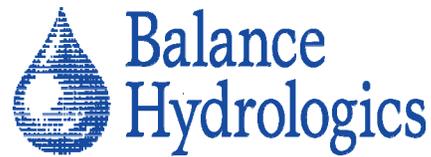


Plate 8. Department of Water Resources Well Completion Report No. 074555 for the Metcalf Motorcycle County Park Well

Attachment 2

Fencing specs: All bids will quote on following material and specs

Materials

- T-posts – 1.33lb/ft or greater
 - 6.0' for all interior fencing
 - 6.5' for all roadside fencing
- H-Brace (Southwest Self Anchoring Super Brace or equal)
- Deflection Brace (Southwest Super Leg Brace or equal)
- Pull Posts (Curly Connector Stress Posts or equal)
- Tie Down Anchors (5' or greater 1.33 lb/ft t-post or equal)
- High Tensile Barbed Wire 4pt 14 Gauge Wire class 3 galvanized wire or equal
- High Tensile Wire 12.5 Gauge twisted 2 strand cable Class 1 or better
- Plastic stays (Southwest Super Stay or equal)
- 10' or 12' Powder River 1600 Tube Gate or equal

Design

- Interior Fencing (5 Strand) - 48" total height of fence (top of t-post at 48", top wire at 46")
 - Bottom wire twisted 2 strand cable set at 14" from ground
 - Three Barbed Wire 4pt lines set 7" apart starting at 7" above bottom cable
 - Top wire twisted 2 strand cable 11" above top barbed wire
- H-Braces to be all driven Southwest Self Anchoring Super Braces, or equal and set no more than ¼ mile or placed as necessary depending on terrain
 - Braces driven into the ground 4' minimum
 - Braces to also be placed at gates
- Deflection Braces to be driven Southwest Super Leg Braces or equal
 - May be used in deflections in alignment of fence direction where the deflection is not more than 30 degrees (more than 30 degrees shall use an H-brace)
- Pull Posts to be driven Curly Connector Stress Posts or equal set no less than 120' on center (certain terrain conditions may require setting closer i.e. high points and break of terrain)
- Tie down anchors (Dead Man anchors) to be placed at all low points where upward pull will be present. Tie down anchors driven into earth 4' minimum and 9ga tie wire attaching all lines
- T-Posts are to be 20' on center
- Southwest Super Stay or similar set at 10' intervals between t-posts
- Gates to be 14' Powder River 1600 Tube Gate or similar for steel gates
- Gates to be 6' self-closing Powder River 1600 Tube gates or similar for pedestrian gates

