California Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Rd. Suite A
Rancho Cordova, CA 95670
(916) 358-2900
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director

OCT 25 2018
Date

Keith Chambers
ComSites West LLC
200 Linton Drive, Suite 310
Grass Valley, CA 95945

Dear Mr. Chambers:

Notification of Lake or Streambed Alteration
Notification No. 1600-2018-0234-R2
Middle Creek Crossing impacting Middle Creek, tributary to Cache Creek

On August 9, 2018, the California Department of Fish and Wildlife (CDFW) received your Notification of Streambed Alteration (Notification). On that same date, your Notification was deemed complete. CDFW had until October 7, 2018 to submit a draft Streambed Alteration Agreement (Agreement) to you or inform you that an Agreement is not required. CDFW did not meet that date. As a result, by law, you may now complete the project described in your Notification without an Agreement.

Please note that pursuant to Fish and Game Code section 1602, subdivision (a)(4)(D), if you proceed with this project, it must be the same as described and conducted in the same manner as specified in the Notification and any modifications to that Notification received by CDFW in writing prior to October 7, 2018. This includes completing the project within the proposed term and seasonal work period and implementing all avoidance and mitigation measures to protect fish and wildlife resources specified in the Notification. If the term proposed in your notification has expired, you will need to re-notify CDFW before you may begin your project. Beginning or completing a project that differs in any way from the one described in the notification may constitute a violation of Fish and Game Code section 1602.

Also note that while you are entitled to complete the project without an Agreement, you are still responsible for complying with other applicable local, state, and federal laws. These include, but are not limited to, Fish and Game Code sections 2080 *et seq.* (species listed as threatened or endangered, or a candidate for listing under the California Endangered Species Act); section 1908 (rare native plants); sections 3511, 4700, 5050, and 5515 (fully protected species); section 3503 (bird nests and eggs); section 3503.5 (birds of prey); section 5650 (water pollution); section 5652 (refuse disposal into water); section 5901 (fish passage); section 5937 (sufficient water for fish); and section 5948 (obstruction of stream).

Finally, if you decide to proceed with your project without an Agreement, you must have a copy of this letter and your Notification with all attachments available at all times at the work site.

If you have questions regarding this letter, please contact Kelsey Vella, Environmental Scientist, at (916) 358-4315 or by email at kelsey.vella@wildlife.ca.gov.

Sincerely,

Jeff Drongesen
Environmental Program Manager

ec: Kelsey Vella, Environmental Scientist
kelsey.vella@wildlife.ca.gov

FOR DEPARTMENT USE ONLY				
Date Received	*Amount Received*	*Amount Due*	*Date Complete*	*Notification No.*
	$	*$*		
Assigned to:				

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Complete EACH field, unless otherwise indicated, following the enclosed instructions and submit ALL required enclosures. Attach additional pages, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Keith Chambers		
Business/Agency	ComSites West LLC		
Mailing Address	200 Litton Drive, Suite 310		
City, State, Zip	Grass Valley, CA, 95945		
Telephone	530-274-6451	Fax	530-274-0411
Email	kchambers@comsiteswest.com		

2. CONTACT PERSON (*Complete only if different from applicant*)

Name			
Street Address			
City, State, Zip			
Telephone		Fax	
Email			

3. PROPERTY OWNER (*Complete only if different from applicant*)

Name	Trinidad Gudino		
Street Address	1773 Dale Ave		
City, State, Zip	San Mateo, CA 94401		
Telephone		Fax	
Email			

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name		Middle Creek Crossing		
B. Agreement Term Requested		☑ Regular (*5 years or less*) ☐ Long-term (*greater than 5 years)*		
C. Project Term		D. Seasonal Work Period		E. Number of Work Days
Beginning (*year*)	Ending (*year*)	Start Date (*month/day*)	End Date (*month/day*)	
2019	2024	May 1	October 15	3

5. AGREEMENT TYPE

Check the applicable box. If box B, C, D, E, or F is checked, complete the specified attachment.	
A.	☑ Standard *(Most construction projects, excluding the categories listed below)*
B.	☐ Gravel/Sand/Rock Extraction (*Attachment A*) *Mine I.D. Number:*_____
C.	☐ Timber Harvesting (*Attachment B*) *THP Number:* _____
D.	☐ Water Diversion/Extraction/Impoundment (*Attachment C*) *SWRCB Number:* _____
E.	☐ Routine Maintenance (*Attachment D*)
F.	☐ Cannabis Cultivation (*Attachment E*)
G.	☐ Department Grant Programs *Agreement Number:* _____
H.	☐ Master
I.	☐ Master Timber Operations

6. FEES

See the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. ***Note: The Department may not process this notification until the correct fee has been received.***

	A. Project	B. Project Cost	C. Project Fee
1	Installation of rocked approaches to existing ford	<$5,000	$577.25
2			
3			
4			
5			
6			
7			
8			
9			
10			
		D. Base Fee *(if applicable)*	
		E. TOTAL FEE*	$577.25

** Cash, check, and Visa or MasterCard payments are accepted.*

7. PRIOR NOTIFICATION AND ORDERS

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project described in this notification?

☐ Yes (*Provide the information below*) ☑ No

Applicant	Notification Number	Date

B. Is this notification being submitted in response to a court or administrative order or notice, or a notice of violation (NOV) issued by the Department?

☑ No ☐ Yes (*Enclose a copy of the order, notice, or NOV. If the applicant was directed to notify the Department verbally rather than in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.*)

☐ *Continued on additional page(s)*

8. PROJECT LOCATION

A. Address or description of project location.

(*Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway*)

See the attached Supporting Documents for Vicinity Map

Driving Directions From Clearlake Oaks, CA:

Travel east on HWY-20 approximately 9 miles. Turn left onto Long Branch Drive (nearly an immediate U-turn after exiting HWY-20). Continue through the gate on Long Branch Drive approximately 1100 ft to the Middle Creek crossing location.

☑ *Continued on additional page(s)*

B. River, stream, or lake affected by the project.	Middle Creek
C. What water body is the river, stream, or lake tributary to?	North Fork Cache Creek
D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts?	☐ Yes ☑ No ☐ Unknown
E. County	Lake

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Lower Lake	13N	06W	8	NE 1/4

☐ *Continued on additional page(s)*

K. Meridian (*check one*) ☐ Humboldt ☑ Mt. Diablo ☐ San Bernardino

L. Assessor's Parcel Number(s)

010-009-40

☐ *Continued on additional page(s)*

M. Coordinates (*If available, provide at least latitude/longitude or UTM coordinates and check appropriate boxes)*			
Latitude/Longitude	*Latitude:*	*Longitude:*	
	☐ Degrees/Minutes/Seconds	☐ Decimal Degrees	☐ Decimal Minutes
UTM	*Easting:* 539821	*Northing:* 4316008	☑ Zone 10 ☐ Zone 11
Datum used for Latitude/Longitude or UTM	☐ NAD 27	☑ NAD 83 or WGS 84	

9. PROJECT CATEGORY

WORK TYPE	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR-MAINTAIN-OPERATE EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	☐	☐	☐
Bank stabilization – rip-rap/retaining wall/gabion	☐	☐	☐
Boat dock/pier	☐	☐	☐
Boat ramp	☐	☐	☐
Bridge	☐	☐	☐
Channel clearing/vegetation management	☐	☐	☐
Culvert	☐	☐	☐
Debris basin	☐	☐	☐
Dam	☐	☐	☐
Filling of wetland, river, stream, or lake	☐	☐	☐
Geotechnical survey	☐	☐	☐
Habitat enhancement – revegetation/mitigation	☐	☐	☐
Levee	☐	☐	☐
Low water crossing	☐	☐	☑
Road/trail	☐	☐	☐
Sediment removal: pond, stream, or marina	☐	☐	☐
flood control	☐	☐	☐
Storm drain outfall structure	☐	☐	☐
Temporary stream crossing	☐	☐	☐
Utility crossing: horizontal directional drilling	☐	☐	☐
jack/bore	☐	☐	☐
open trench	☐	☐	☐
Water diversion without facility	☐	☐	☐
Water diversion with facility	☐	☐	☐
Other *(specify)*:	☐	☐	☐

10. PROJECT DESCRIPTION

A. Describe the project in detail. Include photographs of the project location and immediate surrounding area.

- Written description of all project activities with detailed step-by-step description of project implementation.
- Include any structures (e.g., rip-rap, culverts) that will be placed or modified in or near the stream, river, or lake, and any channel clearing.
- Specify volume, and dimensions of all materials and features (e.g., rip rap fields) that will be used or installed.
- If water will be diverted or drafted, specify the purpose or use.
- Enclose diagrams, drawings, plans, and maps that provide all of the following: site specific construction details; dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, stockpile areas, areas of temporary disturbance, and where the equipment/machinery will access the project area.

This project is intended to improve an existing a low-volume ford crossing to access a proposed cellular and public safety communications tower site north of Middle Creek in Lake County, CA.

Ford Activities/Construction:

Existing 12ft wide road approaches to the ford are to be permanently rocked 50ft in length to the active channel to a minimum depth of 4" of clean, screened rock to prevent tracking of sediment into Middle Creek. Approaches are intended to be hydrologically disconnected to the maximum extent feasible and to filter road runoff from entering Middle Creek. No rock, native fill, debris, or other materials are to be deposited into the channel. The ford will be maintained during every dry season and left in a condition before each subsequent winter season that ensures passing of 100-year flows, large woody debris, and aquatic wildlife.

Step by Step Project Implementation:

- Both road approaches will be excavated to a depth of four inches with a backhoe,

- Approximately 7-1/2 cubic yards of rock will be deposited onto each of the road approaches,

- Rubber-tire tractor with scraper box will spread and compact the rock into the approaches,

- All unused materials and road spoils will be relocated outside of Middle Creek and other watercourses.

(See attached Supporting Documents for aerial imagery and Overview Map)

☐ *Continued on additional page(s)*

B. Specify the equipment and machinery that will be used to complete the project.

Rubber-tire tractor, backhoe, dump truck, and associated construction vehicles.

☐ *Continued on additional page(s)*

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B).	☐ Yes ☑ No (*Skip to box 11*)
D. Will the proposed project require work in the wetted portion of the channel?	☐ Yes (*Enclose a plan to divert water around work site*) ☑ No

11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

There is no work proposed within Middle Creek. The project proposes to: (i) extract about 7.5 cubic yards of the existing native road surface from each approach; and (ii) replace that excavated material with clean angular rock, staying out of the actual crossing. Each improved approach will be approximately 50' long x 12' wide x 4" deep - i.e. approximately 15 - 16 cubic yards in total.

☑ *Continued on additional page(s)*

B. Will the project affect any vegetation? ☑ Yes (*Complete the tables below*) ☐ No *(Include aerial photo with date supporting this determination)*

Vegetation Type	Temporary Impact	Permanent Impact
Grass spp./Herbaceous vegetation	Linear feet: 150 Total area:	Linear feet: 0 Total area:
	Linear feet: Total area:	Linear feet: Total area:

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
N/A	N/A	N/A

☑ *Continued on additional page(s)*

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

☑ Yes *(List each species and/or describe the habitat below)* ☐ No ☐ Unknown

Foothill yellow-legged frog (Rana boylii), Pallid bat (Antrozous pallidus), Lady tidytips (Layia septentrionalis).

☑ *Continued on additional page(s)*

D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.

CNDDB Search (None of above flora or fauna are mapped within 500ft of the project area)

☑ *Continued on additional page(s)*

E. Has a biological study been completed for the project site?

☑ Yes (*Enclose the biological study*) ☐ No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.

F. Has a hydrological study been completed for the project or project site?

☐ Yes (*Enclose the hydrological study*) ☑ No

Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.

G. Have fish or wildlife resources or waters of the state been mapped or delineated on the project site?

☑ Yes (*Enclose the mapped results*) ☐ No

Note: Check "yes" if fish and wildlife resources or waters of the state on the project site have been mapped or delineated. "'Wildlife' means and includes all wild animals, birds, plants, fish, amphibians, reptiles and related ecological communities, including the habitat upon which the wildlife depends." (Fish & G. Code, § 89.5.) If "yes" is checked, submit the mapping or delineation. If the mapping or delineation is in digital format (e.g., GIS shape files or KMZ), you must submit the information in this format for the Department to deem your notification complete. If "no" is checked, or the resolution of the mapping or delineation is insufficient, the Department may request mapping or delineation (in digital or non-digital format), or higher resolution mapping or delineation for the Department to deem the notification complete.

12. MEASURES TO PROTECT FISH, WILDIFE, AND PLANT RESOURCES

A. Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.

To avoid causing erosion and sedimentation of the stream channel, the project work season shall be from May 1 to October 15 while the channel is dry. A 48 hour forecast of rain shall be the trigger for temporary cessation of project activities and the initiation of erosion control measures within the project area. Acceptable BMPs include seeding and mulching, installation of silt fences, and/or straw wattles. Heavy equipment shall not be used to excavate materials within the channel, and the movement of heavy equipment shall be minimized within the channel. All excavated road materials will be relocated away from watercourses and stabilized using the aforementioned BMPs.

☐ *Continued on additional page(s)*

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

The project was researched to minimize imminent and perceived environmental impacts by selecting a watercourse crossing method that 1) Utilized current road bases/ crossing approaches, 2) Eliminates a crossing structural failure during flooding events and/or a 100-year storm event, 3) Avoids drastic re-contouring of stream banks and invasive work within the channel, 4) Avoids removal of surrounding riparian vegetation and riparian tree species, 5) Prevents significant alteration of the current channel migration zone within the alluvial plain, and 5) Allows free passage of aquatic organisms.

☑ *Continued on additional page(s)*

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

Any permanently disturbed vegetated areas from operations and/or displaced road spoils are to be seeded and mulched with native vegetation after project completion and before the following wet season. The project is to be executed in the dry weather period to minimize impacts to aquatic organisms.

☐ *Continued on additional page(s)*

13. PERMITS

List any local, State, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A. Major Use Permit UP 17-03, to be issued by Lake County ☑ Applied ☐ Issued

B. _____ ☐ Applied ☐ Issued

C. _____ ☐ Applied ☐ Issued

D. Unknown whether ☐ local, ☐ State, or ☐ federal permit is needed for the project. (*Check each box that applies*)

☐ *Continued on additional page(s)*

14. ENVIRONMENTAL REVIEW

A. Has a draft or final document been prepared for the project pursuant to the California Environmental Quality Act (CEQA) and/or National Environmental Protection Act (NEPA)?

☑ Yes (*Check the box for each CEQA or NEPA document that has been prepared and enclose a copy of each.*)

☐ No (*Check the box for each CEQA or NEPA document listed below that will be or is being prepared.*)

☐ Notice of Exemption	☐ Mitigated Negative Declaration	☑ NEPA document (*type*): FCC-Focused Checklist Evaluation
☑ Initial Study	☐ Environmental Impact Report	
☐ Negative Declaration	☐ Notice of Determination *(Enclose)*	
☐ THP/ NTMP	☐ Mitigation, Monitoring, Reporting Plan	

B. State Clearinghouse Number (*if applicable*)			
C. Has a CEQA lead agency been determined?	☑ Yes (*Complete boxes D, E, and F*) ☐ No (*Skip to box 14.G*)		
D. CEQA Lead Agency	County of Lake; Community Development Dept., Planning Division		
E. Contact Person	Mark Roberts	F. Telephone Number	707-263-2221

G. If the project described in this notification is not the "whole project" or action pursuant to CEQA, briefly describe the entire project (Cal. Code Regs., tit. 14, § 15378).

☐ *Continued on additional page(s)*

H. Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4?

☐ Yes (*Enclose proof of payment*) ☑ No (*Briefly explain below the reason a CEQA filing fee has not been paid)*

CEQA review is still in progress, therefore a Notice of Determination has not been filed by Lake County. At the time of filing of the Notice of Determination, the CEQA filing fee due to CDFW will be paid.

Note: If a CEQA filing fee is required, the Lake or Streambed Alteration Agreement may not be finalized until paid.

15. SITE INSPECTION

Check one box only.

☐ In the event the Department determines that a site inspection is necessary, I hereby authorize a Department representative to enter the property where the project described in this notification will take place at any reasonable time, and hereby certify that I am authorized to grant the Department such entry.

☑ I request the Department to first contact (*insert name*) Keith Chambers at (*insert telephone number*) 530-274-6451 (Office); 530-913-6451 (Mobile) to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay the Department's determination as to whether a Lake or Streambed Alteration Agreement is required and/or the Department's issuance of a draft agreement pursuant to this notification.

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☐ Yes (Please enclose the information via digital media with the completed notification form)

☑ No

17. SIGNATURE

I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

Signature of Applicant or Applicant's Authorized Representative

August 6, 2018
Date

Keith Chambers, for ComSites West LLC, its General Manager
Print Name

Middle Creek Crossing Project

Supporting Documents

Jacobszoon and Associates, Inc.
117 Clara Avenue
Ukiah, CA 95482
Prepared by: Robert Magnuson
May 23, 2018

11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

There is no work proposed within Middle Creek. An Equipment Exclusion Zone is to be established around the channel areas adjacent to the ford crossing (See Project Area Overview Map). No excavating or activities other than crossing the ford site will occur within the stream channel.

Approximately 15 cubic yards of road material will be removed from the two approaches and filled with angular rock. Road approach spoils are to be relocated to an area and left stabilized and hydrologically disconnected from Middle Creek and surrounding watercourses.

B. Will the project affect any vegetation?

There is a potential for grass/herbaceous vegetation along the road edges of the approaches to be disturbed during excavation of the road approaches. Possible impacts are perceived to be minimal and non-permanent. A maximum of 150 linear feet of grass and herbaceous vegetation is anticipated to be disturbed. No riparian vegetation and tree species will be removed during the road approach improvement work.

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

There are no special status plants or animals mapped within the project area on the CNDDB, and no special status plants or animals were detected during a field visit and biological study on April 20, 2018. The CNDDB has the foothill yellow-legged frog (*Rana boylii*), Pallid bat (*Antrozous pallidus*), and Lady tidytips (*Layia septentrionalis*) mapped in Grizzly Creek, an adjacent tributary to the North Fork Cache Creek. (*See Project Area Map*)

12. MEASURES TO PROTECT FISH, WILDLIFE, AND PLANT RESOURCES

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

The project was researched to minimize imminent and perceived environmental impacts by selecting a watercourse crossing method that:

1) Utilized current road bases/crossing approaches.

A combination of office and field techniques was used to assess the likelihood of relocating and/or realigning the road to minimize the travel distance across the stream channel. Due to the location of the road and surrounding topography, the current crossing is the only viable location to cross Middle Creek without significant amounts of new road construction and engineering. Additionally, any realignment of the road would result in increasing the length of the crossing. Currently, the crossing receives low volumes of traffic to access agricultural lands to the west. And the proposed telecommunications tower associated with this project is anticipated to increase the current traffic level over the road and crossing by approximately eight (8) vehicle trips per month – i.e. the tower will support up to four (4) major cellular service providers and four (4) public safety service providers, each of which is anticipated to service their radio equipment once per month.

2) Eliminates a crossing structural failure during flooding events and/or a 100-year storm event.

The Mag-Freq method was used to calculate the Q100 (700 cfs) for the crossing location (See StreamStats Report). Under Q100 conditions the Middle Creek crossing would receive discharge from Middle Creek and from North Fork Cache Creek (See FEMA Flood Insurance Program Map). Under these conditions it is anticipated that the alluvial plain would inundate, and permanent structures would have a high risk of failure. The result of a permanent crossing failure would increase disturbance within the channel and could negatively affect water quality.

3) Avoids drastic re-contouring of stream banks and invasive work within the channel.

Soils research (See Soils Map) revealed that the crossing area was comprised mainly of a Xerofluvents-Riverwash complex. Xerofluvents are characterized as a floodplain landform and are excessively drained. Riverwash is characterized as a stream channel landform and is composed of sandy and gravelly alluvium subject to recurrent flooding. The USDA WebSoil Survey listed the depth to restrictive feature at more than 80 inches for both Riverwash and Xerofluvents. Improving a driving surface across Middle Creek could introduce incision risks leading to surface undercutting and sediment dislocation as a result of overtopping during periods of high flow and potential isolation of structures from migrating stream channels.

4) Avoids removal of surrounding riparian vegetation and riparian tree species.

5) Prevents significant alteration of the current channel migration zone within the alluvial plain.

Vented fords, improved fords, and other low water crossings designed to be overtopped were considered and discarded due to the diagonal nature of the crossing. Although diagonal crossings are generally undesirable for a variety of reasons, the topography surrounding the Middle Creek crossing prohibits a perpendicular crossing. A raised or buried constructed surface across Middle Creek in a diagonal path has the potential to alter natural channel migration processes and artificially redirect water within the channel migration zone of the alluvial plain.

6) Allows free passage of aquatic organisms.

SUPPORTING PHOTOGRAPHS

Photo 1: Photograph taken from the hill, looking to the south. View of the crossing and the alluvial fan near the confluence of Cache Creek. (4/20/18)

Photo 2: Photograph taken in the center of Middle Creek looking west. Ford surface is located where the people are standing. (4/20/18)

Photo 3: Photograph taken in the center of Middle Creek looking east. Ford surface is evident in the center of the picture. (4/20/18)

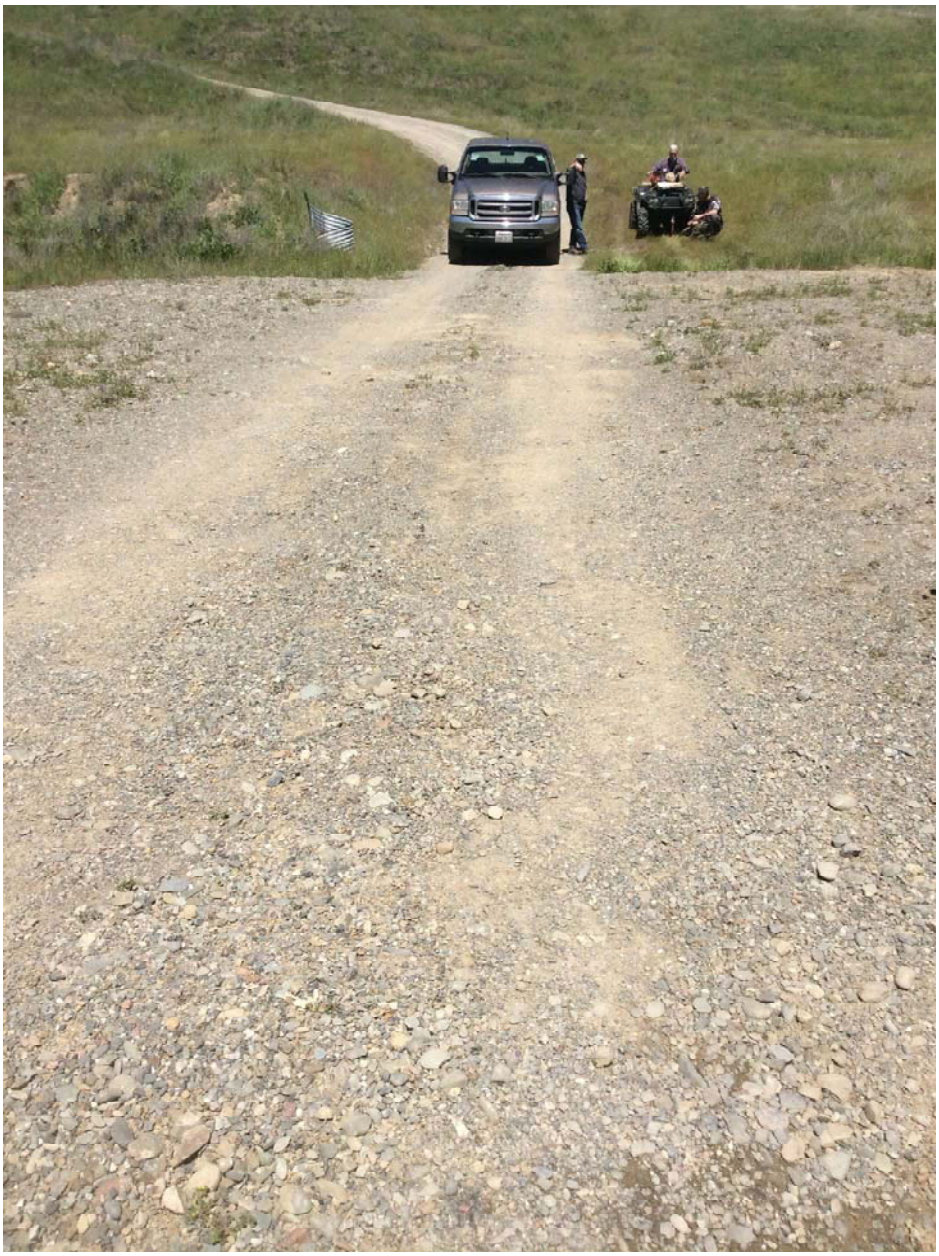
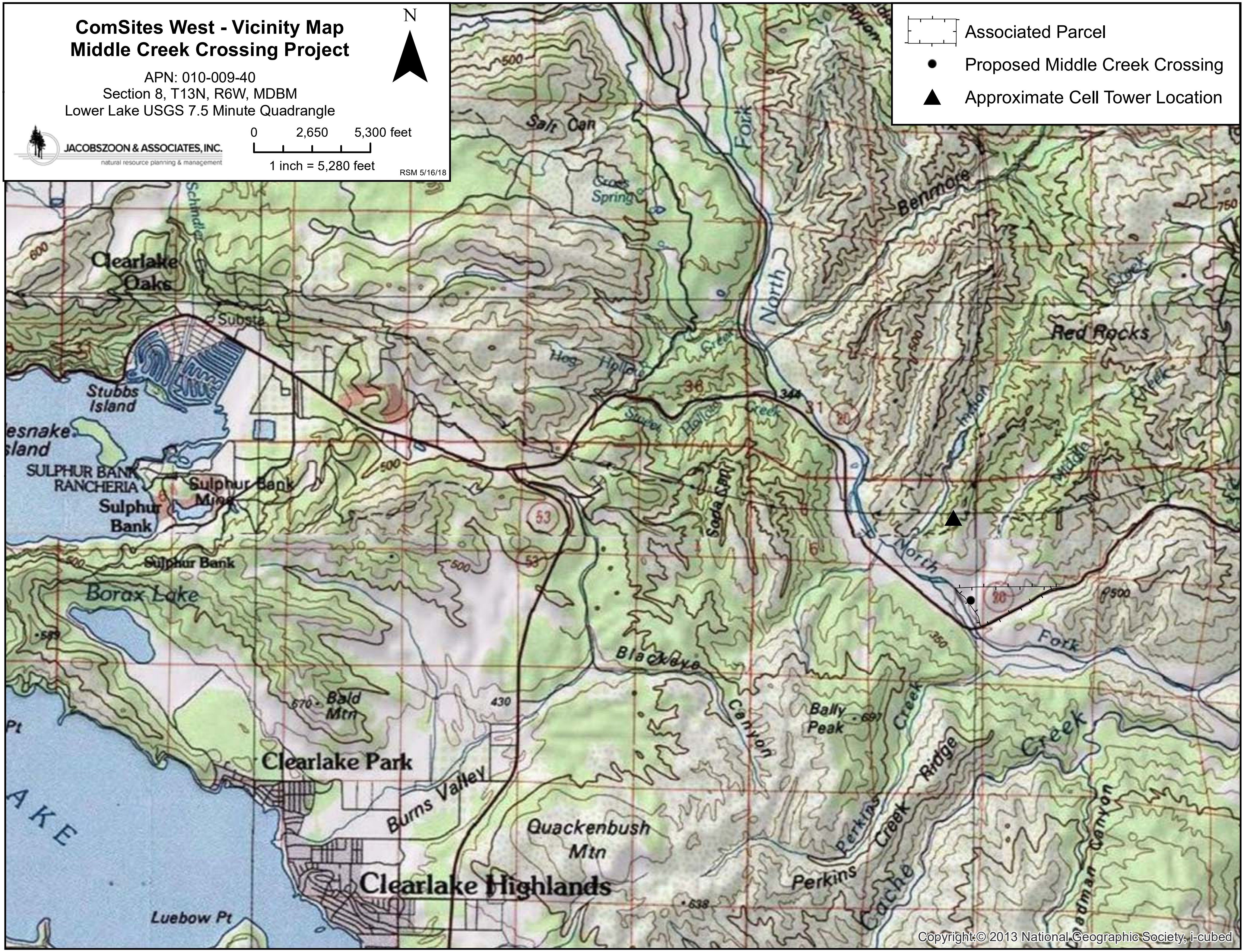


Photo 4: Photograph taken of the ford surface looking north. The truck is positioned on the western approach to be rocked to the active channel line. (4/20/2018)

Photo 5: Photograph of the ford surface looking south. (4/20/2018)

Photo 6: Photograph taken looking north of the ford approach reaching the active channel line and thalweg of Middle Creek. (4/20/18)

Photo 7: Photograph taken of the crossing surface over the thalweg, looking north. (4/20/18).


ComSites West - Vicinity Map
Middle Creek Crossing Project
APN: 010-009-40
Section 8, T13N, R6W, MDBM
Lower Lake USGS 7.5 Minute Quadrangle
JACOBSZOON & ASSOCIATES, INC.
natural resource planning & management
0
2,650
5,300 feet
1 inch = 5,280 feet
RSM 5/16/18
N
Associated Parcel
Proposed Middle Creek Crossing
Approximate Cell Tower Location
Clearlake Oaks
Stubbs Island
Sulphur Bank Rancheria
Sulphur Bank Mine
Sulphur Bank
Borax Lake
Bald Mtn
Clearlake Park
Burns Valley
Quackenbush Mtn
Clearlake Highlands
Luebow Pt
Salt Can
Cross Spring
Hog Hollow
Benmore
North Fork
Red Rocks
Indian
Middle Creek
Soda Spr
Blackeye Canyon
Bally Peak
Perkins Creek
Cache Creek
Ridge
Deadman Canyon
53
20
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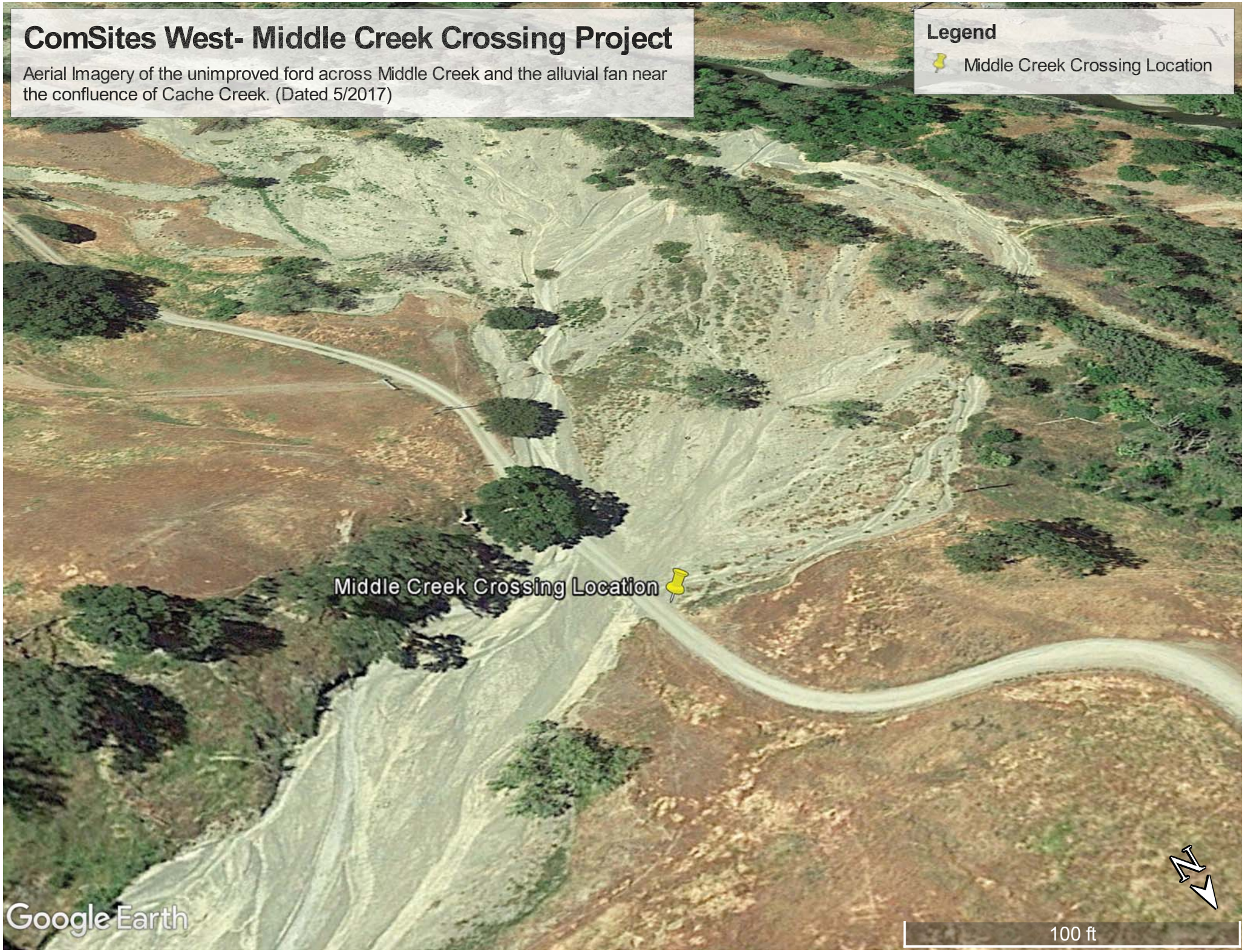
ComSites West- Middle Creek Crossing Project

Aerial Imagery of the unimproved ford across Middle Creek and the alluvial fan near the confluence of Cache Creek. (Dated 5/2017)

ComSites West- Middle Creek Crossing Project

Aerial Imagery of the unimproved ford across Middle Creek and the alluvial fan near the confluence of Cache Creek. (Dated 5/2017)



ComSites West- Middle Creek Crossing Project

Aerial Imagery of the unimproved ford across Middle Creek and the alluvial fan near the confluence of Cache Creek. (Dated 5/2017)

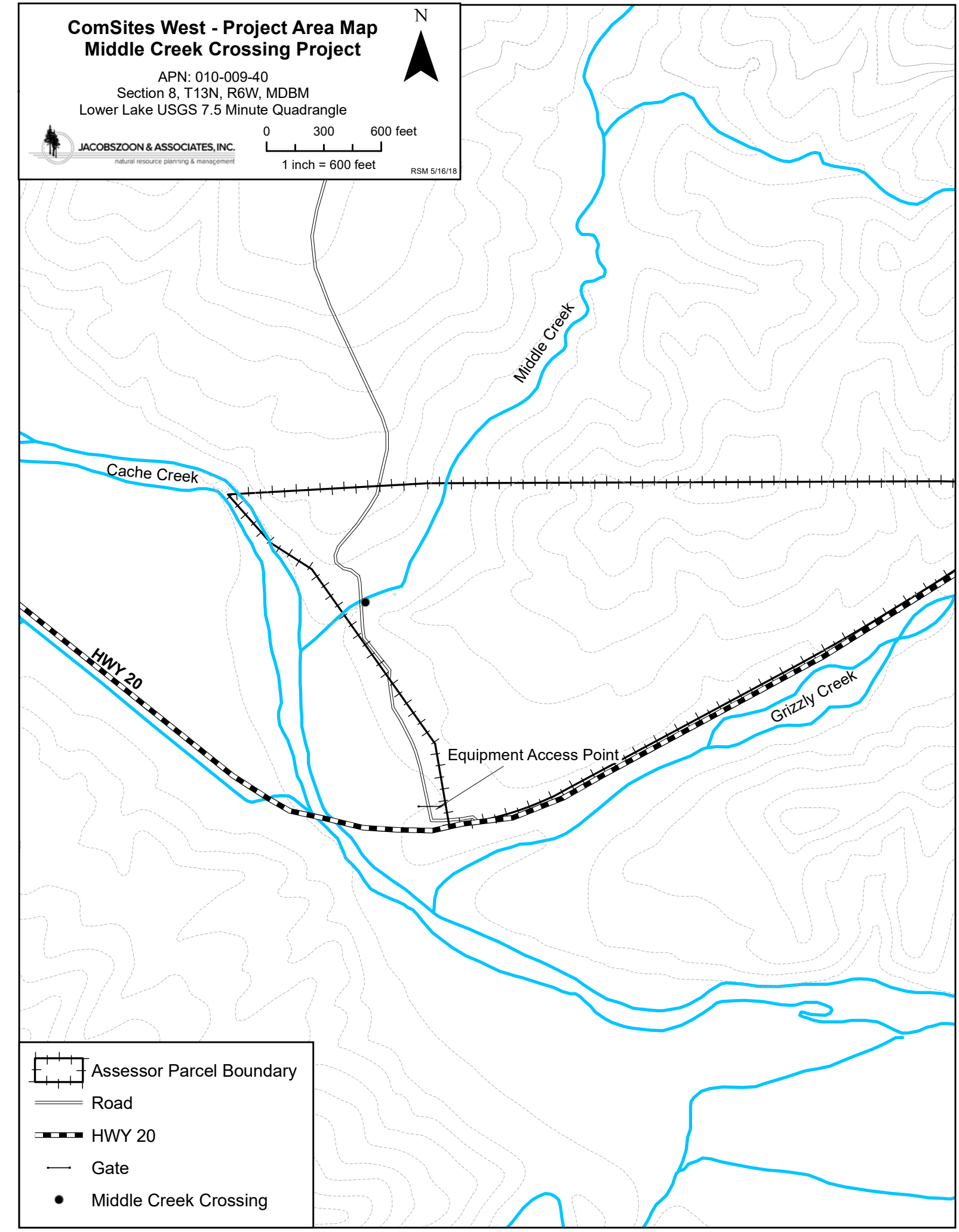
ComSites West - Project Area Map
Middle Creek Crossing Project

APN: 010-009-40
Section 8, T13N, R6W, MDBM
Lower Lake USGS 7.5 Minute Quadrangle

JACOBSZOON & ASSOCIATES, INC.
natural resource planning & management

0 300 600 feet
1 inch = 600 feet

RSM 5/16/18



ComSites West - Project Area Overview
Middle Creek Crossing Project

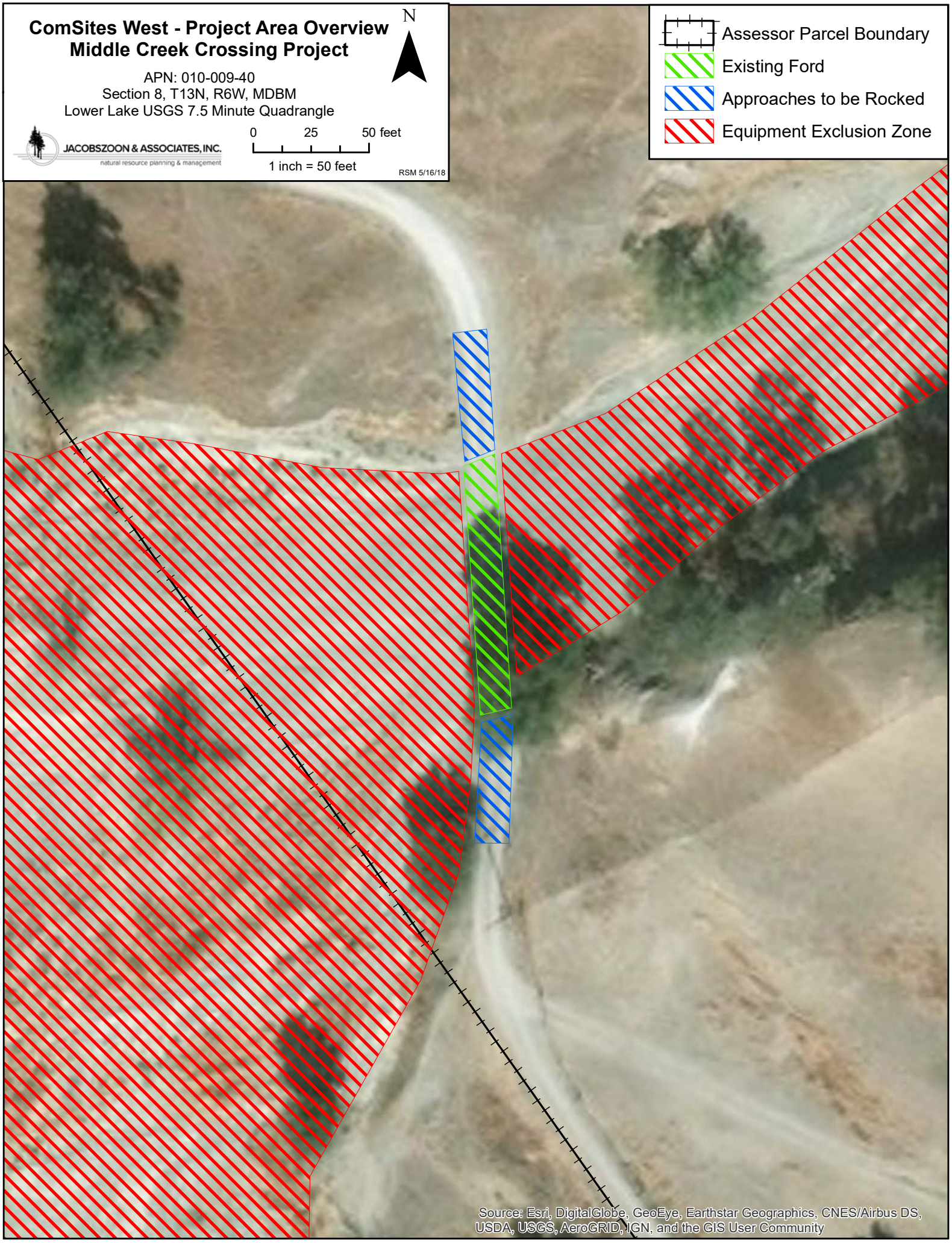
APN: 010-009-40
Section 8, T13N, R6W, MDBM
Lower Lake USGS 7.5 Minute Quadrangle

JACOBSZOON & ASSOCIATES, INC.
natural resource planning & management

0 25 50 feet
1 inch = 50 feet

RSM 5/16/18

N



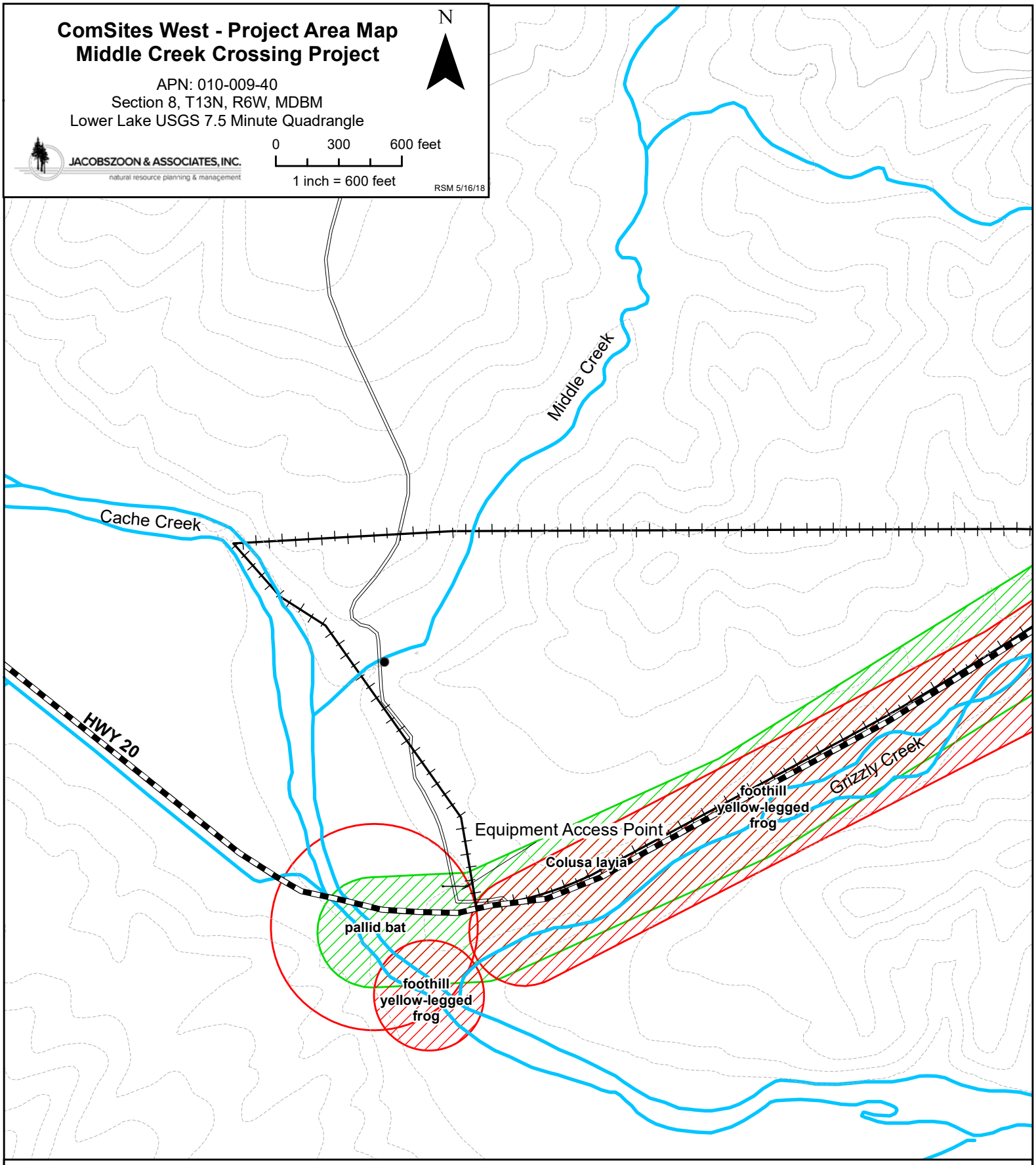
ComSites West - Project Area Map
Middle Creek Crossing Project

APN: 010-009-40
Section 8, T13N, R6W, MDBM
Lower Lake USGS 7.5 Minute Quadrangle

JACOBSZOON & ASSOCIATES, INC.
natural resource planning & management

0 300 600 feet
1 inch = 600 feet

RSM 5/16/18

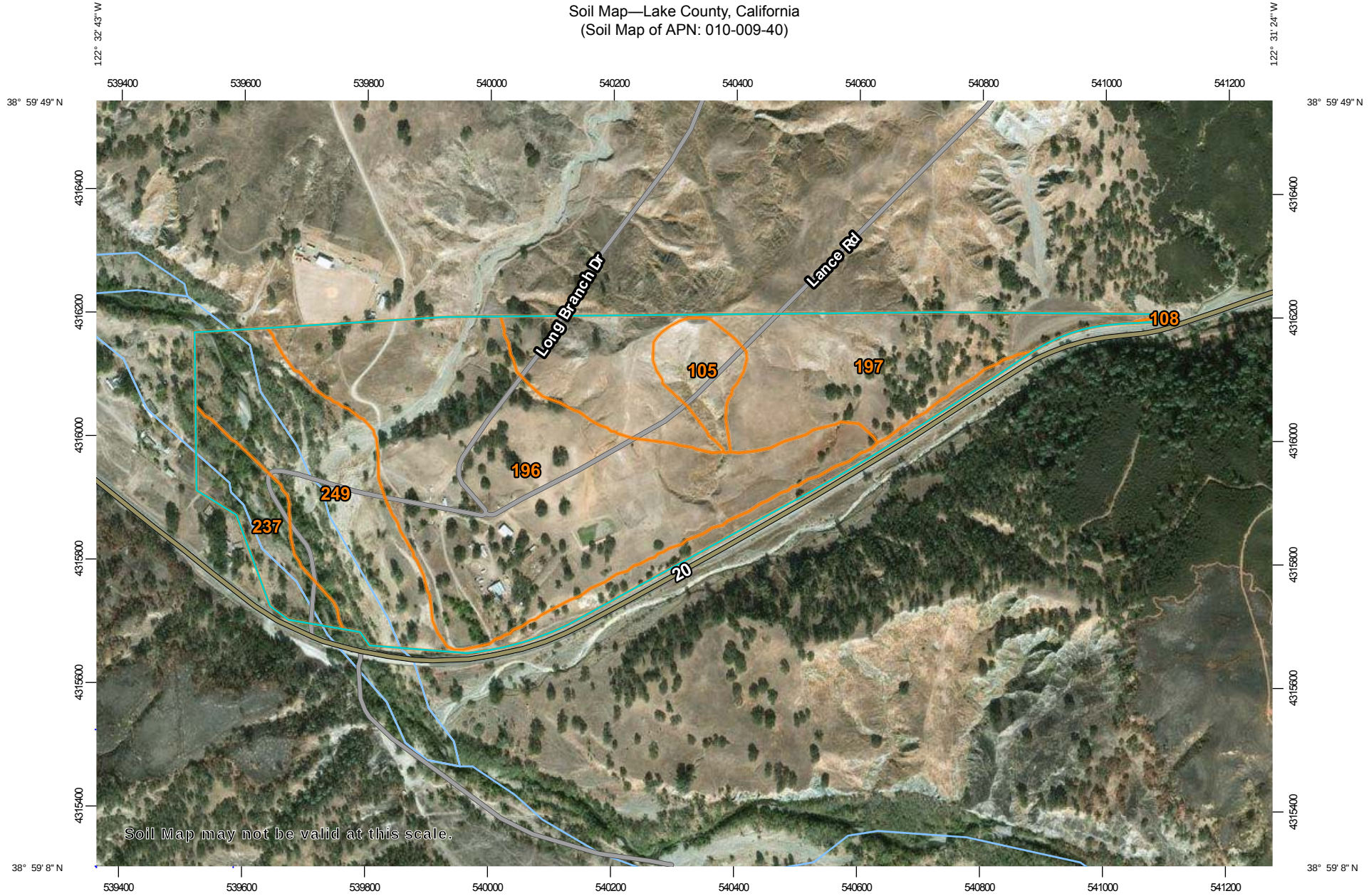


Assessor Parcel Boundary
Road
HWY 20
Gate
Middle Creek Crossing

CNDDB Symbology

Plant (80m)
Plant (specific)
Plant (non-specific)
Plant (circular)
Animal (80m)
Animal (specific)
Animal (non-specific)
Animal (circular)
Terrestrial Comm. (80m)
Terrestrial Comm. (specific)
Terrestrial Comm. (non-specific)
Terrestrial Comm. (circular)
Aquatic Comm. (80m)
Aquatic Comm. (specific)
Aquatic Comm. (non-specific)
Aquatic Comm. (circular)
Multiple (80m)
Multiple (specific)
Multiple (non-specific)
Multiple (circular)
Sensitive EO's (Commercial only)

Soil Map—Lake County, California
(Soil Map of APN: 010-009-40)



Map Scale: 1:8,750 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 100 200 400 600

Feet
0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County, California
Survey Area Data: Version 14, Sep 14, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 4, 2015—Oct 18, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
105	Badlands	4.8	3.7%
108	Bally-Phipps-Haploxeralfs association, 30 to 75 percent slopes	0.1	0.1%
196	Phipps complex, 15 to 30 percent slopes	54.9	42.9%
197	Phipps complex, 30 to 50 percent slopes	32.4	25.3%
237	Talmage very gravelly sandy loam	7.4	5.8%
249	Xerofluvents-Riverwash complex	28.4	22.2%
Totals for Area of Interest		**127.9**	**100.0%**

National Flood Hazard Layer FIRMette

FEMA

Feet
0 250 500 1,000 1,500 2,000

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

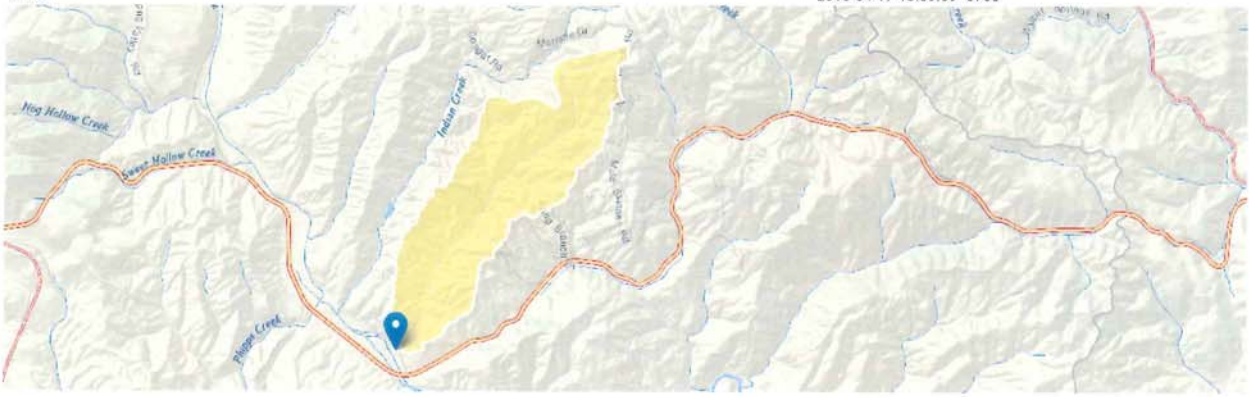
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The base map shown complies with FEMA's base map accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/22/2018 at 6:27:41 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

StreamStats Report for ComSites West Crossing

Region ID:	CA
Workspace ID:	CA20180417210051797000
Clicked Point (Latitude, Longitude):	38.99224, -122.54090
Time:	2018-04-17 13:59:59 -0700



StreamStats report for the proposed Middle Creek crossing location on APN:010-009-40. [Q100:700 cfs/Crossing size: Based on a nomograph, crossing sized to approximately 138"-156"]

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	2.6	square miles
ELEV	Mean Basin Elevation	1555	feet
ELEVMAX	Maximum basin elevation	2549	feet
FOREST	Percentage of area covered by forest	1.13	percent
LAKEAREA	Percentage of Lakes and Ponds	0	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	0	percent
LFPLENGTH	Length of longest flow path	4	miles
MINBELEV	Minimum basin elevation	1005	feet
PRECIP	Mean Annual Precipitation	27.5	inches

Peak-Flow Statistics Parameters [2012 5113 Region 1 North Coast]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	2.6	square miles	0.04	3200
PRECIP	Mean Annual Precipitation	27.5	inches	20	125

Peak-Flow Statistics Flow Report [2012 5113 Region 1 North Coast]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	SEp
2 Year Peak Flood	112	ft^3/s	45.4	277	58.6
5 Year Peak Flood	244	ft^3/s	115	518	47.4
10 Year Peak Flood	345	ft^3/s	168	705	44.2
25 Year Peak Flood	480	ft^3/s	242	955	42.7
50 Year Peak Flood	587	ft^3/s	294	1170	42.7
100 Year Peak Flood	700	ft^3/s	342	1430	44.3
200 Year Peak Flood	809	ft^3/s	394	1660	44.4
500 Year Peak Flood	955	ft^3/s	454	2010	46

Peak-Flow Statistics Citations

Gotvald, A.J., Barth, N.A., Veilleux, A.G., and Parrett, Charles,2012, Methods for determining magnitude and frequency of floods in California, based on data through water year 2006: U.S. Geological Survey Scientific Investigations Report 2012–5113, 38 p., 1 pl. (http://pubs.usgs.gov/sir/2012/5113/)