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April 7, 2016

Thomas Borge
975 Fee Drive
Sacramento, CA. 95815

Re: Butte County Meadowfoam survey on a proposed commercial development site, Borge property, Chico, California (NSE#16-045).

Dear Mr. Borge,

As requested, NorthStar Engineering (NorthStar) conducted a protocol-level botanical survey for Butte County meadowfoam (BCM) (*Limnanthes floccosa* ssp. *californica*) on March 22, 2016. For this survey, NorthStar retained botanist, Ms. Mary Bailey, a qualified botanist (**Attachment A – Surveyors Qualifications**), to lead the survey. The survey was conducted within Assessor's Parcel Numbers (APN) 002-180-084 and 002-180-086 (Property). The survey was confined to the portion of APN 002-180-084 that lies east of Bruce Road. Butte County meadowfoam is a state and federal endangered species and a California Native Plant Society (CNPS) 1B.¹ species, therefore, the survey was conducted per U.S. Fish and Wildlife Service (USFWS) guidelines. Provided herein is a summary of Ms. Bailey's findings.

Biological Setting

The Biological Survey Area (BSA) is located within the Chico USGS 7.5' quadrangle, Township 22 North, Range 2 East, Section 19 (**Figure 1**). The BSA is situated at the southeast corner of the intersection of Bruce Road and State Route 32 with an approximate elevation of 241 feet above sea level. Habitat within the BSA is somewhat depauperate annual grassland which appears to have endured significant disturbance in the past. Wetland features are present onsite which include a vernal pool, a seasonal drainage (Dead Horse Slough), and a seasonal wetland on the eastside of a portion of the drainage.

Winter and spring rainfall and inundation had been sufficient to allow for BCM seed germination. The soil present within the BSA is a soil map unit known to be suitable for BCM establishment (Redtough-Redswale Complex, 0 to 2 percent slopes). Furthermore, known occurrences of BCM are located adjacent to the Property.

According to the *USFWS Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (2005), both the swales and vernal pools supportive of BCM are on alluvial terraces in annual

¹ Plants with a California Rare Plant Rank of 1B are considered rare or endangered in California or elsewhere. Plants constituting the 1B Rank are eligible for state listing per the definitions of the California Endangered Species Act of the California Department of Fish and Game Code. The 0.1 rank 0.1 indicates that the plant is seriously threatened in California. A 0.2 designation indicates that the plant is fairly endangered in California.



grasslands with mima mound topography (Kelley and Associates Environmental Sciences 1992, BioSystems Analysis, Inc. 1993). Occupied swales are inundated periodically by water from surrounding uplands, causing the soil to become saturated. However, BCM does not persist in pools or swales that are inundated for prolonged periods or remain wet during the summer months, nor does it occur in drainages where water flows swiftly (Jokerst 1989, Kelley and Associates Environmental Sciences 1993a).

Methodology

The survey was conducted on March 22, 2016, during the appropriate flowering window of the target species, by botanist Mary Bailey and NorthStar biologist Carol Wallen (see **Attachment A** Surveyor Qualifications). Surveys were conducted in accordance with USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*. The appropriate flowering window for BCM was confirmed by observing reference populations on March 16, 2016: one population located in south Chico along Bruce Road in a vernal swale and the second population in north Chico along Cohasset Road at the edge of the Sycamore Creek Preserve.

As the timing of the survey also coincided with blooming periods of other CNPS List 1.B species, which may occur within the habitat onsite, the following species were also included in the survey: Ahart's paronychia (*Paronychia ahartii*, CNPS List 1B.1), Ahart's rush (*Juncus leiospermus* var. *ahartii*, CNPS List 1B.2) and Adobe lily (*Fritillaria pluriflora*, CNPS List 1B.2).

The entire survey area was surveyed on foot using meandering transects and all suitable habitat was closely inspected for BCM. A Trimble GeoXH was on hand to record any observed BCM. Site photos are presented in **Attachment B**.

Results

No BCM plants were observed within the Property boundaries. In addition, none of the other CNPS listed species were located within the BSA. A list of plant species observed during the field survey is presented as **Attachment C**.

Conclusions and Recommendations

A minimum of two years of negative survey data is necessary to support a negative finding for the presence of BCM prior to land use development and implementation of entitlement actions. This survey and letter report represents the first year of a negative finding for the presence of BCM within the Property's boundaries.

Sincerely,

Matt Rogers, Assistant Biologist
NorthStar Engineering



Figures

Figure 1: Location Map

Attachments

Attachment A: Surveyor Qualifications

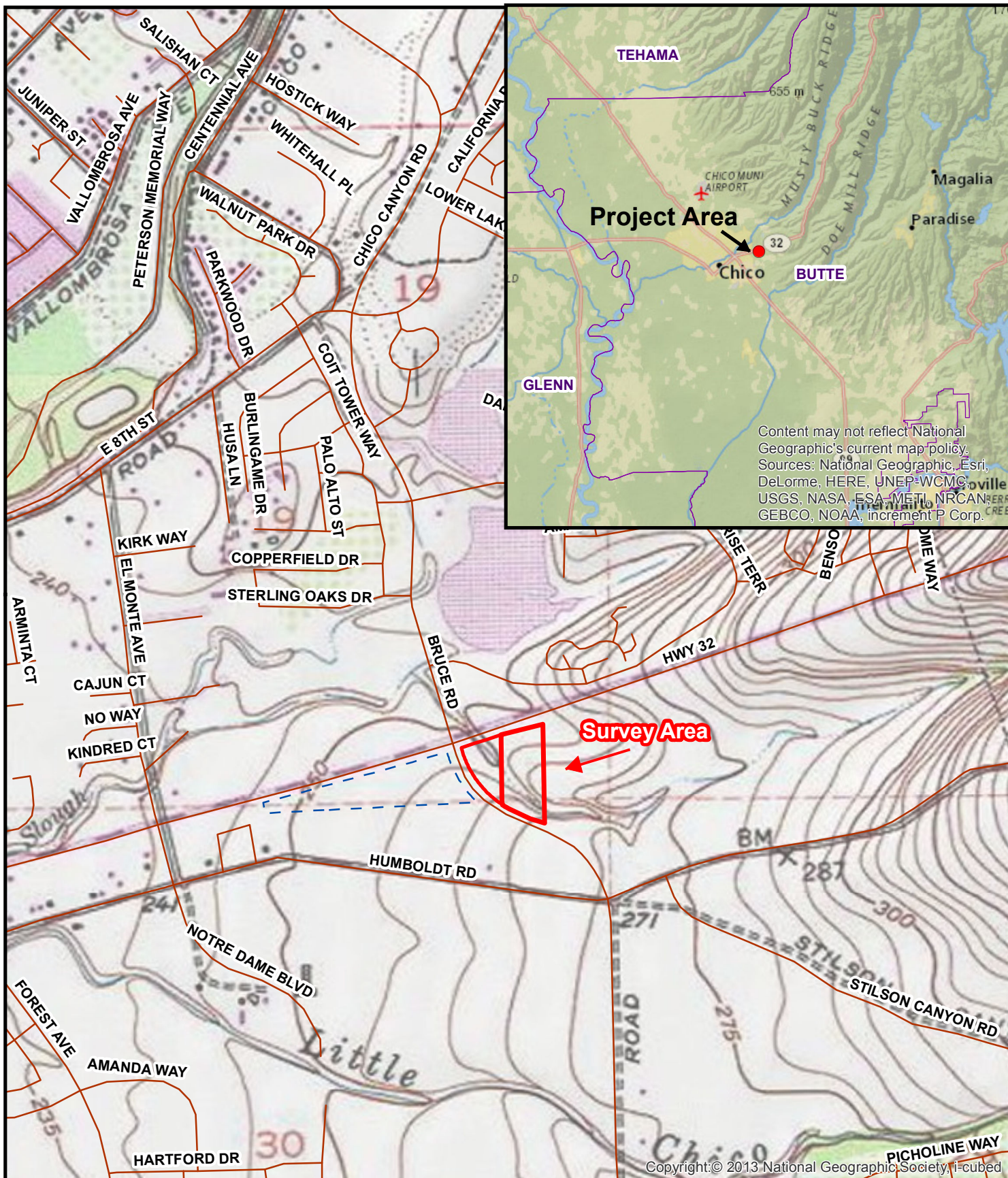
Attachment B: Site Photos

Attachment C: Species Observed Onsite

References

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California, Second Edition*. University of California Press, Berkeley.
- BioSystems Analysis, Inc. 1993. Floristic inventory Butte 149 project. Unpublished report to the California Department of Transportation, Marysville. 69 pages + appendices.
- California Native Plant Society (CNPS). 2012. Inventory of Rare and Endangered Plants (online edition, v7-09b). California Native Plant Society. Sacramento, CA. Available online at <http://www.cnps.org/inventory>.
- Jokerst, J. D. 1989. A draft plan for the conservation of Butte County meadowfoam in the City of Chico. *Limnanthes floccosa* ssp. *californica*. Unpublished report to the City of Chico, California, 128 pages.
- Kelley and Associates Environmental Sciences, Inc. 1992b. Biological report on Butte County meadowfoam (*Limnanthes floccosa* ssp. *californica*) for Farm Credit Project, Bruce and Warfield Roads, Chico, Butte County, California. Revised version with 1992 data. Unpublished report, Davis, California. 11 pages + maps.
- Kelley and Associates Environmental Sciences, Inc. 1993a. Draft biological report on Butte County meadowfoam (*Limnanthes floccosa* ssp. *californica*) for Stonegate Project, southeast corner, Bruce and Warfield Roads, Chico, Butte County, California. Unpublished report, Davis, California. 8 pages.
- LSA Associates, Inc. 1994. Wetland mitigation and monitoring plan for the Stonegate property, Chico, Butte County, California. Unpublished report to Northstate Business Center, Chico, California. 29 pages.
- McNeill, C., and C. Brown. 1979. Rare plant status report: *Limnanthes floccosa* Howell ssp. *californica* Arroyo. California Native Plant Society, Sacramento. 3 pages.
- USFWS, 1996. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*. September 23, 1996.

FIGURE 1:
LOCATION MAP



Legend

- Area Surveyed
- Area Not Surveyed
- Butte Co. Streets

0 290 580 1,160 Feet



1 inch = 1,000 ft
(printed at 8.5 x 11)

Imagery Source:
USGS Topo
Inset Imagery:
National Geographic

Within Sections 19 & 30, T22N,
R02E, Butte County, CA
Chico USGS 7.5' Quad

Map Date:
4-11-16

Drawn By:
CJW

NSE
Project #
16-045

Survey Date: 3/22/16
Surveyed By: M. Bailey
C. Wallen

Parcels Surveyed:
002-180-084-000
(E of Bruce Rd. Only)
002-180-086-000
(Entire Parcel)

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Figure 1: Location Map

Borge Parcel BCM Survey
- Butte County, CA -



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ATTACHMENT A:
SURVEYOR QUALIFICATIONS

Mary L. Bailey

Botanical and
Cultural Resources Specialist,
Wetland Delineations

EDUCATION

*B.S., Biology, California
State University Chico,
California*

*B.A., Anthropology,
California State University
Chico, California*

*Postgraduate Diploma,
Archaeology, University of
Leicester, UK.*

Master's Thesis in Progress

CERTIFICATIONS

*Army Corps of Engineer's
certified training in wetland
delineation, Sacramento,
California*

*Advanced wetland
delineation training, San
Diego, California*

KEY SKILLS

- *Botanical resource
identification*
- *Wetland identification,
mapping and soils
sampling*
- *Archaeological
construction monitoring*
- *Archaeology inventory
studies*

Ms. Mary Bailey is a cultural resource specialist with over **20 years** of experience conducting onsite surveys for botanical, archaeological, and biological resources, as well as mitigation monitoring. She has prepared California Environmental Quality Act environmental compliance documents, including Initial Studies and Environmental Impact Reports (EIRs), Natural Environment Studies (NESs) for the California Department of Transportation, Biological Resource Assessments and cultural resource inventory reports.

Ms. Bailey has functioned as both lead archeologist and crew member for archaeological inventories throughout northern California including: the Sacramento Municipal Utility District (SMUD) Nature Preserve Mitigation Bank at Rancho Seco, Stillwater Plains Vernal Pool Mitigation Bank, and the proposed Pine Creek Aggregate Operation in Butte County. Ms. Bailey has conducted cultural resource investigations and archaeological surveys for numerous projects covering Placer, El Dorado, Sacramento, Butte, Lake, Plumas, Solano, Shasta, Colusa, Glenn, and Tehama Counties. She has managed and developed contacts with Native American groups, local historians, and other agencies with specialized information appropriate for inclusion into various environmental documents. Section 106 compliance has been required for the majority of reports produced.

Ms. Bailey has over 20 years of experience conducting botanical surveys throughout northern California, for general plant inventories, protocol level rare plant surveys and habitat assessments. She has over 15 years of experience conducting wetland delineations.

Contact information:

Mary Bailey
3807 West Branch Lane
Oroville, CA 95965
(530) 520-8813
goldenhills@aol.com



Education

B.S. Biological Sciences –
California State University,
Chico, 2009

Experience

NorthStar Engineering *Biologist,*
QSP, GIS Analyst

United States Dept. of Defense,
Beale Air Force
Staff Biologist,
Environmental Field Inspector

Additional Training:

- GGS Volunteer with USGS
- Rare Pond Species Survey Techniques (focus: California red-legged frog and California tiger salamander)
- American Kestrel Banding and Handling
- Vernal Pool Fairy Shrimp and Tadpole Shrimp Sampling
- Avian Interactions

Ms. Wallen serves as NorthStar Engineering's regulatory permitting specialist and construction monitoring biologist. Ms. Wallen specializes in regulatory compliance as well as mitigation implementation to ensure project compliance with the state and federal Endangered Species Acts (ESA and CESA), Clean Water Act (CWA), Migratory Bird Treaty Act (MBTA), Fish and Game Code (FGC), and the avoidance, minimization and mitigation measures identified in regulatory permits including CWA 404 and 401 permits, USFWS Biological Opinions, FGC 1600, and CEQA/NEPA mitigation. Ms. Wallen is also a Qualified SWPPP Practitioner and evaluates sites for water quality compliance, including the CA Construction General Permit. As a wildlife biologist, Ms. Wallen has conducted preconstruction surveys, protocol level surveys for special status, threatened, and endangered species, as well as habitat assessments for vernal pool fairy shrimp, vernal pool tadpole shrimp, Valley elderberry longhorn beetle, western burrowing owl, and Swainson's hawk, as well as numerous surveys for migratory birds, including the installation and maintenance of exclusionary devices on structures. Ms. Wallen is also conducts biological resource assessments, biological assessments, wetland delineations in collaboration with staff botanists, opportunities and constraints analyses.

Project Experience

- **County Road 44 Safety Improvements, Regulatory Permitting Compliance and Construction Monitoring** (Caltrans funded), Glenn County, – Regulatory Compliance/Construction Monitoring Biologist
- **Lincoln Receiver Antennae Installation**, Beale Air Force Base – Regulatory Compliance/Construction Monitoring Biologist
- **SR 32 Widening and Bridge Replacement and Expansion** (Caltrans funded), City of Chico – Regulatory Compliance/Construction Monitoring Biologist
- **SR 99 Auxiliary Lane** (Caltrans funded), City of Chico – Regulatory Compliance/Construction Monitoring Biologist
- **BCAG Transit Facility Outfall Installation**, Butte County Association of Governments – Regulatory Compliance/Construction Monitoring Biologist
- **Road 98 Safety Improvement Project and Bridge Replacement** (Caltrans funded), Yolo County – Regulatory Compliance/Construction Monitoring Biologist
- **Road 89 Safety Improvement Project and Bridge Replacement** (Caltrans funded), Yolo County – Regulatory Compliance/Construction Monitoring Biologist
- **SR 65 Safety Improvement Project and Bridge Expansion** (Caltrans funded), Sutter County – Regulatory Compliance/Construction Monitoring Biologist
- **State Highway 80/84** (Caltrans funded), Sacramento County – Regulatory Compliance/Construction Monitoring Biologist
- **Pennington Road Bridge Replacement, Impacts Map for Regulatory Permitting** (Caltrans funded), (current) Sutter County – Regulatory Permitting Specialist/Botanist
- **CSU Chico Physical Sciences Bridge Wetlands Delineation**, (current) California State University, Chico – Botanist/Planner

ATTACHMENT B:
SITE PHOTOS

View to the northeast on the Borge property, showing the onsite vernal pool. State Route 32 is to the background.



View to the east northeast across the Borge property, showing the disturbed annual grassland.



Butte County
Meadowfoam
reference population in
bloom, seen here mid-
photograph. North
Chico population.



Butte County
Meadowfoam
reference population in
bloom, seen here mid-
photograph and at the
right edge of the
picture. South Chico
population.

ATTACHMENT C:
SPECIES OBSERVED ONSITE

Plant Species Observed on the Borge Property on March 22, 2016

Scientific Name ¹	Common Name	Family	Nativity
<i>Aira caryophyllea</i>	Common silver-hair grass	Poaceae	Naturalized
<i>Amsinckia intermedia</i>	Common fiddleneck	Boraginaceae	Native
<i>Avena barbata</i>	Slender wild oat	Poaceae	Naturalized
<i>Brassica rapa</i>	Field mustard	Brassicaceae	Naturalized
<i>Bromus hordeaceus</i>	Soft brome, soft chess	Poaceae	Naturalized
<i>Bromus madritensis</i> subsp. <i>madritensis</i>	Foxtail chess, Madrid brome	Poaceae	Naturalized
<i>Calandrinia ciliata</i>	Fringed redmaids, red maids	Montiaceae	Native
<i>Callitriche heterophylla</i>	Greater water-starwort	Plantaginaceae	Native
<i>Centaurea solstitialis</i>	Yellow star-thistle	Asteraceae	Naturalized
<i>Delphinium variegatum</i>	Royal larkspur	Ranunculaceae	Native
<i>Dichelostemma capitatum</i>	Bluedicks	Themidaceae	Native
<i>Eleocharis macrostachya</i>	Pale spike rush	Cyperaceae	Native
<i>Elymus caput-medusae</i>	Medusa-head grass	Poaceae	Naturalized
<i>Epilobium brachycarpum</i>	Stork's bill	Onagraceae	Native
<i>Eriogonum nudum</i> var. <i>pubiflorum</i>	Fremont's wild buckwheat	Polygonaceae	Native
<i>Erodium botrys</i>	Long-beak stork's-bill	Geraniaceae	Naturalized
<i>Erodium cicutarium</i>	Redstem filaree	Geraniaceae	Naturalized
<i>Festuca myuros</i>	Rat-tail six-weeks grass	Poaceae	Naturalized
<i>Festuca perennis</i>	Perennial rye grass, Italian ryegrass	Poaceae	Naturalized
<i>Galium tricornutum</i>	Rough corn bedstraw	Rubiaceae	Native
<i>Geranium dissectum</i>	Cut-leaf geranium	Geraniaceae	Naturalized
<i>Glyceria declinata</i>	Waxy manna grass, low manna grass	Poaceae	Naturalized
<i>Hordeum marinum</i> subsp. <i>gussoneanum</i>	Mediterranean barley	Poaceae	Naturalized
<i>Hordeum murinum</i> subsp. <i>leporinum</i>	Wall barley, hare barley	Poaceae	Naturalized
<i>Juncus bufonius</i> var. <i>occidentalis</i>	Toad rush, western toad rush	Juncaceae	Native
<i>Lamium amplexicaule</i>	Henbit	Lamiaceae	Naturalized
<i>Lasthenia fremontii</i>	Fremont's goldfields	Asteraceae	Native
<i>Logfia filaginoides</i>	California cottonrose	Asteraceae	Native
<i>Lupinus bicolor</i>	Bicolored lupine	Fabaceae	Native

Plant Species Observed on the Borge Property on March 22, 2016

Scientific Name ¹	Common Name	Family	Nativity
<i>Lupinus pachylobus</i>	Big pod lupine	Fabaceae	Native
<i>Marsilea vestita</i> subsp. <i>vestita</i>	Hairy water-clover	Marsileaceae	Native
<i>Minuartia californica</i>	California stitchwort, California sandwort	Caryophyllaceae	Native
<i>Navarretia leucocephala</i> subsp. <i>leucocephala</i>	White-flower pincushion-plant	Polemoniaceae	Native
<i>Plagiobothrys canescens</i>	Valley popcorn flower	Boraginaceae	Native
<i>Plagiobothrys greenei</i>	Greene's popcorn-flower, Greene's spiny-nut popcornflower	Boraginaceae	Native
<i>Plagiobothrys nothofulvus</i>	Rusty popcorn-flower, foothill snowdrops	Boraginaceae	Native
<i>Plagiobothrys stipitatus</i> var. <i>stipitatus</i>	Stalked popcorn-flower, showy Great Valley popcornflower	Boraginaceae	Native
<i>Plantago erecta</i>	Erect plantain	Plantaginaceae	Native
<i>Poa annua</i>	Annual blue grass	Poaceae	Naturalized
<i>Senecio vulgaris</i>	Old-man-in-the-spring, common groundsel	Asteraceae	Naturalized
<i>Sherardia arvensis</i>	Field madder	Rubiaceae	Naturalized
<i>Sidalcea calycosa</i>	Annual checker-mallow, vernal pool checkerbloom	Malvaceae	Native
<i>Silybum marianum</i>	Milk thistle	Asteraceae	Naturalized
<i>Stellaria media</i>	Common chickweed	Caryophyllaceae	Naturalized
<i>Torilis arvensis</i>	Hedge parsley	Apiaceae	Naturalized
<i>Triphysaria eriantha</i>	Butter-and-eggs, johnny-tuck	Orobanchaceae	Native
<i>Veronica peregrina</i> subsp. <i>xalapensis</i>	Neckweed, purslane speedwell	Plantaginaceae	Native
<i>Zeltnera venusta</i>	California centaury, charming centaury	Gentianaceae	Native

3/31/2017

Thomas Borge
975 Fee Drive
Sacramento, CA. 95815

RE: Butte County Meadowfoam Survey #2, Borge property, Chico, CA (NSE#16-045)

Dear Mr. Borge,

As requested, NorthStar biologists Matt Rogers and Andrew Huneycutt conducted a protocol-level botanical survey for Butte County meadowfoam (BCM) (*Limnanthes floccosa ssp. californica*) on March 28, 2017. The survey was conducted within Assessor's Parcel Numbers (APN) 002-180-084 and 002-180-086. The survey was confined to the portion of APN 002-180-084 that lies east of Bruce Road. Butte County meadowfoam is a state and federal endangered species and a California Native Plant Society (CNPS) 1B.1 species, therefore, the survey was conducted per U.S. Fish and Wildlife Service (USFWS) guidelines.

Biological Setting

The Biological Survey Area (BSA) is located within the Chico USGS 7.5' quadrangle, Township 22 North, Range 2 East, Section 19 (**Figure 1**). The BSA is situated at the southeast corner of the intersection of Bruce Road and State Route 32 with an approximate elevation of 241 feet above sea level. Habitat within the BSA is somewhat depauperate annual grassland which appears to have endured significant disturbance in the past. Wetland features are present onsite which include a vernal pool, a seasonal drainage (Dead Horse Slough), and a seasonal wetland on the eastside of a portion of the drainage.

Above average winter rainfall and inundation has been sufficient to allow for BCM seed germination. The soil present within the BSA is a soil map unit known to be suitable for BCM establishment (Redtough-Redswale Complex, 0-2 percent slopes). Furthermore, known occurrences of BCM are located 0.1 miles to the south of the property.

According to the *USFWS Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (2005), both the swales and vernal pools supportive of BCM are on alluvial terraces in annual grasslands with mima mound topography (Kelley and Associates Environmental Sciences 1992, BioSystems Analysis, Inc. 1993). Occupied swales are inundated periodically by water from surrounding uplands, causing the soil to become saturated. However, BCM does not persist in pools or swales that are inundated for prolonged periods or remain wet during the summer months, nor does it occur in drainages where water flows swiftly (Jokerst 1989, Kelley and Associates Environmental Sciences 1993a).

Methods

The survey was conducted on March 28, 2017, during the appropriate flowering window of the target species, by NorthStar biologists Matt Rogers and Andrew Huneycutt (Surveyor Qualifications-**Attachment A**). Surveys were conducted in accordance with *USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*. The appropriate flowering window for BCM was confirmed by observing a reference population in south Chico along Bruce Road in a vernal swale on March 9, 2017.

As the timing of the survey also coincided with blooming periods of other CNPS List 1.B species, which may occur within the habitat on-site, the following species were also included in the survey: Ahart's paronychia (*Paronychia ahartii*, CNPS List 1B.1), Ahart's rush (*Juncus leiospermus* var. *ahartii*, CNPS List 1B.2) and Adobe lily (*Fritillaria pluriflora*, CNPS List 1B.2).

The entire survey area was surveyed on foot using meandering transects and all suitable habitat was closely inspected for BCM. A Trimble GeoXH was on hand to record any observed BCM plants. Site photos are presented in **Attachment B**.

Results

No BCM plants were observed within the property boundaries. In addition, none of the other CNPS listed species were located within the BSA. A list of the plant species observed during the survey can be found in **Attachment C**.

Conclusions and Recommendations

This survey and letter report represents the second year of a negative finding for the presence of BCM within the property's boundaries. A minimum of two years of negative survey data is necessary to support a negative finding for the presence of BCM prior to land use development and implementation of entitlement actions. According to the 2000 USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*, projects with plant inventory surveys older than three years would likely need additional survey.

Please feel free to contact me with any questions at (530) 893-1600 ex. 210 or via email at mrogers@northstareng.com

Sincerely,

NorthStar



Matt Rogers
Associate Biologist

Figures

Figure 1-Location Map

Attachments

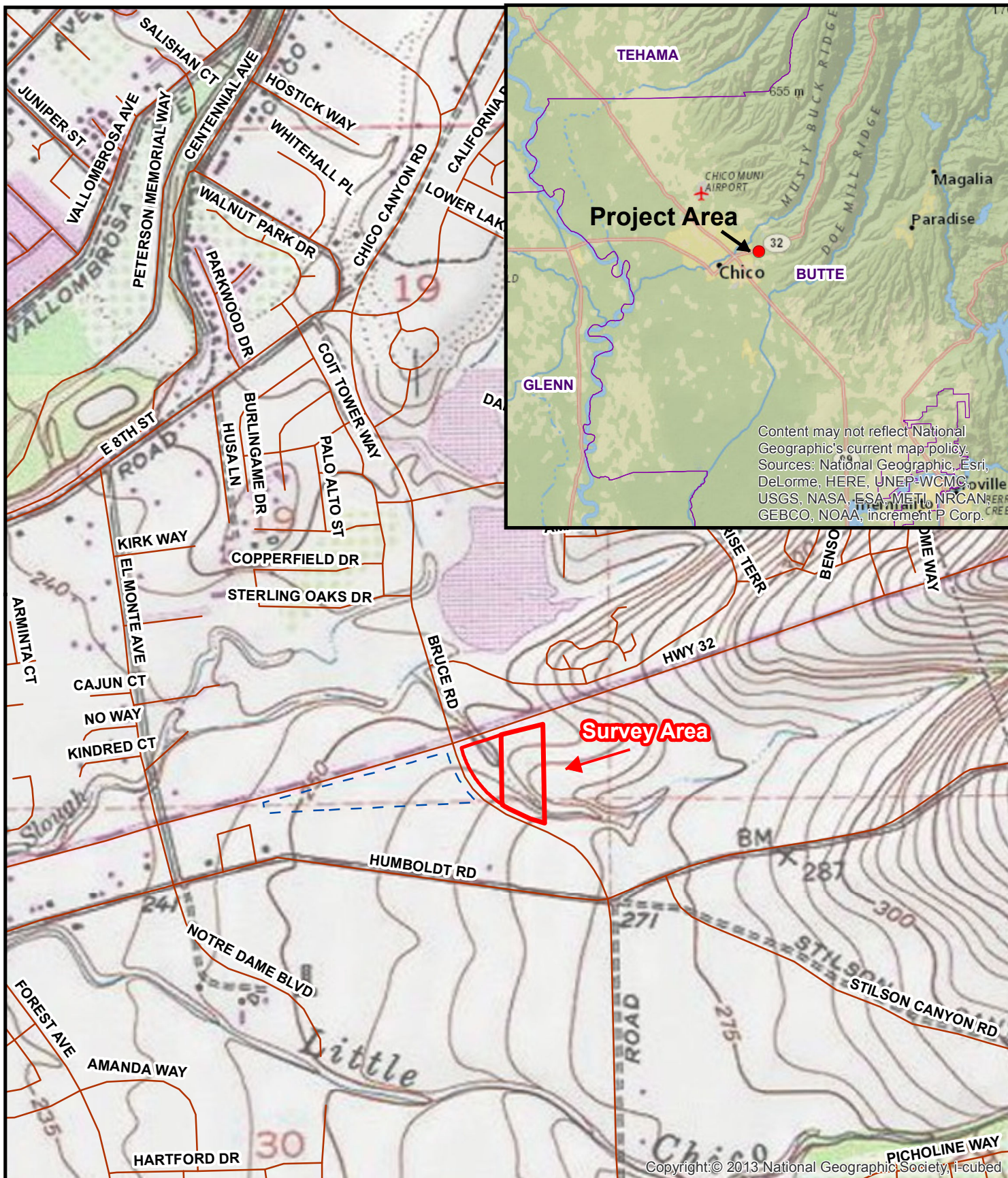
Attachment A-Surveyor Qualifications
Attachment B-Site Photos
Attachment C-Observed Species List

REFERENCES

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California, Second Edition*. University of California Press, Berkeley.
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- Jokerst, J. D. 1989. A draft plan for the conservation of Butte County meadowfoam in the City of Chico. *Limnanthes floccosa* ssp. *californica*. Unpublished report to the City of Chico, California, 128 pages.
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- USFWS, 2000. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*. January, 2000.

FIGURE 1:

LOCATION MAP



Legend

- Area Surveyed
- Area Not Surveyed
- Butte Co. Streets

0 290 580 1,160 Feet



1 inch = 1,000 ft
(printed at 8.5 x 11)

Imagery Source:
USGS Topo
Inset Imagery:
National Geographic

Within Sections 19 & 30, T22N,
R02E, Butte County, CA
Chico USGS 7.5' Quad

Map Date:
4-11-16

Drawn By:
CJW

NSE
Project #
16-045

Survey Date: 3/22/16
Surveyed By: M. Bailey
C. Wallen

Parcels Surveyed:
002-180-084-000
(E of Bruce Rd. Only)
002-180-086-000
(Entire Parcel)

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Figure 1: Location Map

Borge Parcel BCM Survey
- Butte County, CA -



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ATTACHMENT A:

SURVEYOR QUALIFICATIONS

**Matt Rogers****Education**

B.S., In Biological Sciences
California State University,
Chico, 2008

Additional Training

- California Native Plant Society (CNPS), Introduction to Plant Identification
- Southern Sierra Research Station, Yellow-Billed Cuckoo Survey Protocol Training

Work Experience

NorthStar Engineering
Associate Biologist

Western ECI
Consulting Utility Forester

California Department of Fish and Wildlife (CDFW)
Scientific Aid

Point Blue Conservation Science
Field Biologist

Roles and Responsibilities:

Mr. Rogers would serve as the Lead Biologist for the preparation of the biological studies, such as Natural Environment Studies and Biological Assessments, and assists in the preparation of Wetland Delineations and regulatory permit applications. Mr. Rogers also assists with the preparation of CEQA documentation and associated technical studies.

For the past 8 years, Mr. Rogers has worked with a variety of public and private entities conducting biological surveys across the western United States, with particular emphasis on riparian systems. Mr. Rogers has conducted protocol-level surveys and habitat assessments for a variety of species, including both state and federally listed species such as, Yellow-billed cuckoo, spring-run and winter-run Chinook salmon, Central Valley steelhead, Valley elderberry longhorn beetle, and California red-legged frog. He has extensive experience conducting a variety of bird surveys including call-playback, point counts, and area searches. He is adept at identifying western bird species by both sight and sound. In the last three years much of his work experience has been tied to various California Department of Fish and Wildlife (CDFW) projects in the northern Central Valley associated with anadromous fish species. Upon joining NorthStar, Mr. Rogers prepares biological technical analysis documentation including Biological Resources Assessments and Biological Evaluations, Wetland Delineations, and conducts construction monitoring. In addition, Mr. Rogers serves as an Environmental Planner preparing CEQA documents and associated technical analyses for Initial Studies/Mitigated Negative Declarations.

Select Project Experience:

- Sutter County Bridge Preventative Maintenance Project, Wetland Delineation, (current) - Sutter County
- Gilsizer Slough Maintenance Agreement & Revetment Project, Wetland Delineation, CEQA, Permitting (current) - Gilsizer County District/Yuba City
- Butte College 3-Creeks Culvert Replacement Projects, Construction and Fisheries Monitoring - Butte Community College District
- Pleasants Valley Road over Miller Canyon Creek, Wetland Delineation, VELB Biological Assessment – Solano County
- Berry Creek Rancheria Annexation Project, CEQA-Initial Study/Mitigated Negative Declaration, LOAPUD
- Marigold Avenue Subdivision, Wetland Delineation - Mark West
- Gonzales Property/Bruce Road Grading Project, Biological Resource Assessment, Wetland Delineation - Gonzales Development

**Andrew Huneycutt*****Education***

B.S., In Environmental Science
California State University,
Chico, 2007

Additional Training

- CDFW, Salmonid Handling, Tagging, and Sampling
- CDFW, Fish Anesthetization and Recovery Techniques

Work Experience

NorthStar Engineering
Associate Biologist

California Department of Fish
and Wildlife (CDFW)
Scientific Aid

Chico State Research
Foundation
Fisheries Biologist

Pacific States Marine Fisheries
Commission
Scale Age Technician

Roles and Responsibilities:

Mr. Huneycutt serves as the Assistant Biologist for the preparation of the biological studies, such as Natural Environment Studies, Biological Assessments, and assists in the preparation of Wetland Delineations. Mr. Huneycutt also assists with storm water monitoring (SWPPP) inspections and reports.

For the last 11 years he has been working on various California Department of Fish & Wildlife (CDFW) projects as well as temporary positions with the Chico State Research Foundation and Pacific States Marine Fisheries Commission. The majority of his work has been associated with wild and captive Chinook salmon. Studies conducted included mark and recapture, data collection, biologic sampling, fecundity, spawning, incubation, growth rates, survival rates, releases, diseases and mortalities within waters throughout California. He is experienced with anadromous stream habitat typing and assessments including measuring flow, dissolved oxygen, conductivity, salinity, alkalinity, pH, turbidity and gradient. He has trained staff in fish and macro invertebrate identification, trapping methods, back pack electro-fishing, seine netting, snorkel surveys, carcass surveys, trapping juvenile salmon, presence/absence surveys and data collection. While working as a Fish and Wildlife Technician with CDFW Mr. Huneycutt conducted fish salvage and relocation efforts for threatened North American green sturgeon and Central Valley spring-run Chinook salmon on the Sacramento River and Butte Creek. He has worked cooperatively with federal, state, and local agencies, private landowners and non-governmental organizations to assess anadromous and fresh water fish populations. Upon joining NorthStar, Mr. Huneycutt prepares biological technical analysis documentation including Biological Resources Assessments and Biological Evaluations, Wetland Delineations, and conducts construction monitoring. In addition, Mr. Huneycutt conducts the storm water monitoring (SWPPP) inspections and prepares the subsequent reports.

ATTACHMENT B:

SITE PHOTOS



Photo 1 –

Central
portion of the
site.

- Standing
near
northwest
corner of
property
looking south.



Photo 2 –

Northern
portion of the
site.

- Standing near
the northwest
corner looking
east.



Photo 3 –

Large vernal pool near the northern boundary of the property.

- Standing on northern boundary of the property looking west.



Photo 4 –

Northwest corner of the property.

- Standing on the western boundary of the property looking north.



Photo 5 –

Middle portion of the property showing Dead Horse Slough.

- Standing near the northern boundary looking south.



Photo 6 –

Small populations of navarettia and tidy tips found in the northwestern corner of the property.

- Standing near Bruce Rd and Hwy 32.



Photo 7 –

**Butte County
Meadowfoam
in bloom, from
a reference
population
located along
Bruce Road in
south Chico.**

**- March 9,
2017.**

ATTACHMENT C:

OBSERVED SPECIES LIST

Silverhair grass	<i>Aira caryophyllea</i>
Common fiddleneck	<i>Amsinckia intermedia</i>
Slender wild oat	<i>Avena barbata</i>
Field mustard	<i>Brassica rapa</i>
Soft brome	<i>Bromus hordeaceus</i>
Foxtail chess, Madrid brome	<i>Bromus madritensis</i> subsp. <i>madritensis</i>
Greater water-starwort	<i>Callitriche heterophylla</i>
Yellow star thistle	<i>Centaurea solstitialis</i>
Fitch's tarplant	<i>Centromadia fitchii</i>
Royal larkspur	<i>Delphinium variegatum</i>
Bluedicks	<i>Dichelostemma capitatum</i>
Pale spike rush	<i>Eleocharis macrostachya</i>
Medusahead grass	<i>Elymus caput-medusae</i>
Stork's bill	<i>Epilobium brachycarpum</i>
Fremont's wild buckwheat	<i>Eriogonum nudum</i> var. <i>pubiflorum</i>
Long-beak stork's-bill	<i>Erodium botrys</i>
Redstem filaree	<i>Erodium cicutarium</i>
Rat-tail six-weeks grass	<i>Festuca myuros</i>
Perennial rye grass	<i>Festuca perennis</i>
Rough com bedstraw	<i>Galium tricornutum</i>
Cut-leaf geranium	<i>Geranium dissectum</i>
Mediterranean barley	<i>Hordeum marinum</i> subsp. <i>gussoneanum</i>
Wall barley	<i>Hordeum marimum</i>
California goldfields	<i>Lasthenia californica</i>
Fremont's goldfields	<i>Lasthenia fremontii</i>
Smooth goldfields	<i>Lasthenia glaberrima</i>
Tidy tips	<i>Layia fremontii</i>
California stitchwort	<i>Minuartia californica</i>
Valley popcorn flower	<i>Plagiobothrys canescens</i>
Rusty popcorn flower	<i>Plagiobothrys nothofulvus</i>
Erect plantain	<i>Plantago erecta</i>
Annual blue grass	<i>Poa annua</i>
Milk thistle	<i>Silybum marianum</i>
Annual checker-mallow	<i>Sidalcea calycosa</i>
Common chickweed	<i>Stellaria media</i>
Hedge parsley	<i>Torilis arvensis</i>
Butter-and-eggs	<i>Triphysaria eriatha</i>
Winter vetch	<i>Vicia villosa</i>