DRAFT

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

BOWMAN CHARTER SCHOOL RECREATION FIELD PROJECT

AUBURN, PLACER COUNTY, CALIFORNIA

October 2022

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INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

BOWMAN CHARTER SCHOOL RECREATION FIELD PROJECT

AUBURN, PLACER COUNTY, CALIFORNIA

Submitted to:

Ackerman Charter School District
13777 Bowman Road
Auburn, CA 95603

Prepared by:

School Site Solutions
2015 H Street
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LIST OF ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
AB32	California Global Warming Solutions Act
APN	Assessor's Parcel Number
BMP	best management practice
CalEEMod	California Emissions Estimator Model
CALFIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers' Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CDMG	California Department of Mines and Geology
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH_4	methane
CHRIS	California Historic Resources Information System
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e/yr	carbon dioxide equivalent per year
CRHR	California Register of Historical Resources
DPM	diesel particulate matter
GHG	Greenhouse gas
I-80	Interstate 80
kV	kilovolt
lbs/day	pounds per day
LOS	level of service
LRA	local responsibility area
MBTA	Migratory Bird Treaty Act
MRZ	mineral resource zone
MSL	Mean sea level
MT	metric tons
N/A	not applicable
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NO_x	Nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OCP	organochlorine pesticides
OP-DC-DR-AO	Office Professional-Combining Design Scenic Corridor-Combining Development Reserve with Combining Airport Overlay

OSHA	Occupational Safety and Health Administration
PCAPCD	Placer County Air Pollution Control District
PCCP	Placer County Conservation Plan
PM_{10}	particulate matter diameter 10 microns
$PM_{2.5}$	particulate matter diameter 2.5 microns
PPV	peak particle velocity
PRC	Public Resources Code
RCRA	Resource Conservation and Recovery Act
ROC	reactive organic compounds
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SMARA	California Surface Mining and Reclamation Act
SO_x	sulfur oxides
SRA	state responsibility area
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
tons/yr	tons per year
USACE	U.S. Army Corps of Engineers
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
WDRs	waste discharge requirements

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1.0 PROJECT INFORMATION

1. **Project Title:**
   Bowman Charter School Recreation Field Project

2. **Lead Agency Name and Address:**
   Ackerman Charter School District
   13777 Bowman Road
   Auburn, CA 95603

3. **Contact Person and Phone Number:**
   Kristin Wells, Superintendent/Principal, 530-885-1974

4. **Project Location:**
   Bowman Charter School
   13777 Bowman Road
   Auburn, CA 95603

5. **Project Sponsor's Name and Address:**
   N/A

6. **General Plan Designation:**
   Mixed Use

7. **Zoning:**
   Office Professional-Combining Design Scenic Corridor-Combining Development Reserve, Assessor's Parcel Number (APN) 053-090-024 also includes Combining Airport Overflight (OP-DC-DR-AO)

   - DC = Provides special regulations to protect and enhance the aesthetic character of lands and buildings within public view (County Code 17.52.070)
   - DR = Provide for the future development of limited residential, commercial or industrial uses in areas that are identified by the general or community plan for such uses, but which may not be prepared at the time the district is adopted to accommodate the planned levels of full development until additional infrastructure or resources have been provided (County Code 17.52.080)
   - AO = Land uses that are compatible with, support and enhance airport sites (County Code 17.52.030)

8. **Description of Project:**

   Project Background
   In Fall of 2014, Ackerman Charter School District purchased APN 053-090-024, which is located to the south/southwest of the existing campus. With the addition of this land, the

District prepared the Facilities Master Vision Plan 2025 to maximize the 14-acre Bowman Charter School campus. The Vision Plan identified two priority projects. The first priority project was development of the new Campus Entry / Parking Lot Improvements as well as construction of the Multipurpose Building, which was completed in 2017. The second priority project for the District was to develop the 6-acre parcel on the southwest side of Unk Road. This priority project was delayed as a result of reimbursement of matching state funds that took several additional years to obtain. In Fall of 2021, the District commenced the Concept Design effort to define the needs to create recreational field space to fulfill the Campus and California Department of Education requirements.

Proposed Project

The Ackerman Charter School District (District) proposes to develop recreational fields, an associated parking lot, and equipment/field storage buildings on APNs 053-090-023 (0.1394 acre) and 053-090-024 (6 acres) of the Bowman Charter School campus. The approximately 6-acre project area is located on the west side of Interstate 80 (I-80), approximately 3 miles northeast of central Auburn in western Placer County, California.

There are three major vegetation communities in the Study Area, including ruderal grassland, foothill pine-interior live oak woodland, and willow riparian scrub. Topography on the site is generally level, and gradually slopes to the southwest of the site. Elevations from northwest to southeast on the site range from approximately 1,600 to 1,630 feet above mean sea level (MSL).

The proposed project would include (1) development of a primary soccer field sized for middle school teams (210 feet by 320 feet) and (2) development of cross fields for physical education instruction (both 120 feet by 180 feet). Additionally the District proposes development of a backstop for recreation / physical education instruction. To accommodate the field program, the project would include the development of additional parking for approximately 40 cars as well as infrastructure for two Equipment/Field Storage Buildings (approximately 900 square feet each). Lights would be installed in the parking only to fulfill code minimum light levels. No lights are proposed for the fields. All proposed land improvements would occur within the campus property and the project has been designed to minimize conflicts with the existing drainage swale to the south side of the property.

9. Surrounding Land Uses and Setting:

The project area is bounded by Bowman Charter School to the northeast, I-80 corridor to the east, and rural residences to the south and west.

10. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

- California Department of Education
- Division of the State Architect
- Placer County Tree Removal Permit

- Placer County Public Works

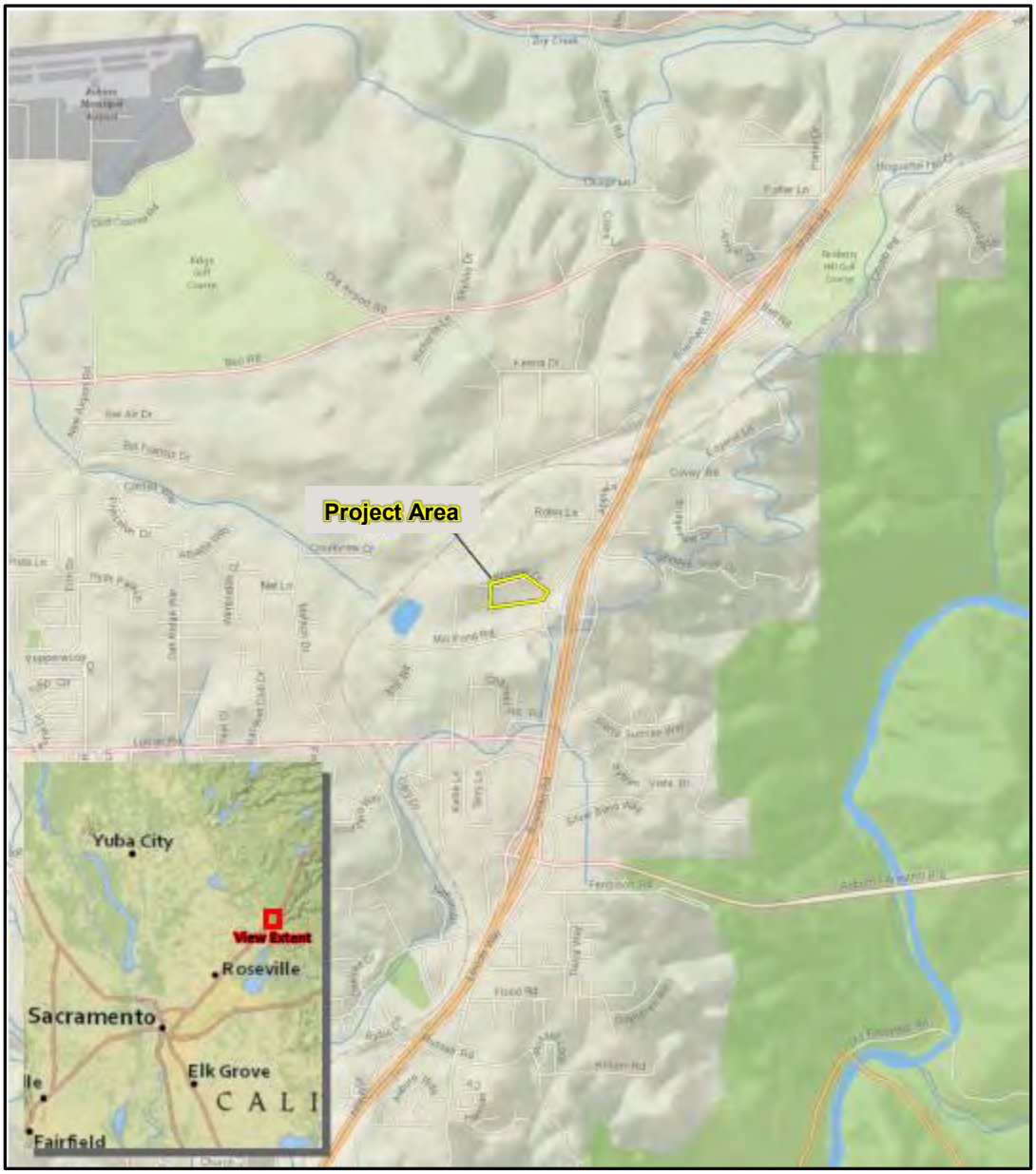

Figure 1: **Project Location**

Figure 2: **Proposed Project**

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The District requested a Sacred Lands File search from the Native American Heritage Commission in July 2022. Pursuant to Assembly Bill (AB) 52, the District contacted the tribal representatives on the list. To date, the District has received no responses from tribal representatives. In the event that the tribal representatives express interest in the project and/or the project area, the District will coordinate with the tribes to address any concerns.

2.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist in Chapter 3.0.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

2.1 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kristen Wells
Signature

10/21/2022
Date

Special Requirements under the State School Facility Program

In addition to the California Environmental Quality Act (CEQA) Guidelines, primary and secondary public schools have several additional requirements established by the California Code of Regulations and California Education Code. Table 1 identifies the specific health and safety requirements for a state-funded new school or a state-funded addition to an existing school site. These health and safety requirements are outlined in the California Department of Education (CDE) School Site Selection and Approval Guide. The analyses and response is included under the relevant section identified in the table below.

Table 1: Special Requirements for School Site Selection and Approval

Topic	Environmental Code	Environmental Checklist
Air Quality		
Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?	PRC § 21151.8(a)(1)(D); Ed. Code § 17213(c)(2)(C)	Section 3.3 Air Quality, Question (e)
Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (b) freeways and other busy traffic corridors; (c) large agricultural operations; and/or (d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances, or waste?	PRC § 21151.8 (a)(2); Ed. Code § 17213 (b)	Section 3.3 Air Quality, Question (f)
Geology and Soils		
Does the site contain an active earthquake fault or fault trace, or is the site located within the boundaries of any special studies zone or within an area designated as geologically hazardous in the safety element of the local general plan?	CCR, Title 5 § 14010(f); Ed. Code, § 17212	Section 3.7 Geology and Soils, Question (a)(i)
Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to moderate to high liquefaction?	CCR, Title 5 § 14010(i)	Section 3.7 Geology and Soils, Question (a)(iii)
Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to landslides?	CCR, Title 5 § 14010(i)	Section 3.7 Geology and Soils, Question (a)(iv)
Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?	CCR, Title 5 § 14010(f); Ed. Code § 17212	Section 3.7 Geology and Soils, Question (a)(i)
Hazards and Hazardous Materials		
Is the property line of the proposed school site less than the following distances from the edge of respective powerline easements: (1) 100 feet of a 50-133 kV line; (2) 150 feet of a 220-230 kV line; or (3) 350 feet of a 500-550 kV line?	CCR, Title 5 § 14010(c)	Section 3.9 Hazards and Hazardous Materials, Question (h)
Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or	CCR, Title 5 § 14010(h)	Section 3.9 Hazards and

underground pipeline that can pose a safety hazard to the site?		Hazardous Materials, Question (i)
Is the proposed school site situated within 2,000 feet of a significant disposal of hazardous waste?	CCR, Title 5 § 14010(t)	Section 3.9 Hazards and Hazardous Materials, Question (d)
Does the proposed school site contain one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials, or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood?	PRC § 21151.8 (a)(1)(C)	Section 3.9 Hazards and Hazardous Materials, Question (i)
Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site? *(Does not apply to school sites approved by CDE prior to January 1, 1997.)*	Ed. Code § 17215.5 (a)	Section 3.9 Hazards and Hazardous Materials, Question (j)
Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?	PRC § 21151.8 (a)(1)(A)	Section 3.9 Hazards and Hazardous Materials, Question (k)
Is the project site a hazardous substance release site identified by the state Department of Health Services in a current list adopted pursuant to §25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?	PRC § 21151.8 (a)(1)(B)	Section 3.9 Hazards and Hazardous Materials, Question (d)
If prepared, has the risk assessment been performed with a focus on children's health posed by a hazardous materials release or threatened release, or the presence of naturally occurring hazardous materials on the school site?	Ed. Code § 17210.1 (a)(3)	Section 3.9 Hazards and Hazardous Materials, Question (c)
If a response action is necessary and proposed as part of this project, has it been developed to be protective of children's health, with an ample margin of safety?	Ed. Code § 17210.1 (a)(4)	Section 3.9 Hazards and Hazardous Materials, Question (l)
Is the proposed school site within two miles, measured by airline, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site? *(Does not apply to school sites acquired prior to January 1,1966.)*	Ed. Code § 17215 (a)&(b)	Section 3.9 Hazards and Hazardous Materials, Question (e)
Hydrology and Water Quality		
Is the project site subject to flooding or dam inundation?	CCR, Title 5 § 14010(g); Ed. Code § 17212;	Section 3.10 Hydrology and Water Quality, Question (d)
Land Use and Planning		
Would the proposed school conflict with any existing or proposed land uses, such that a potential health or safety risk to students would be created?	CCR, Title 5 § 14010(m)	Section 3.11 Land Use and Planning, Question(b)

Noise		
Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the education program?	CCR, Title 5 § 14010(e)	Section 3.13 Noise, Question (d)
Public Services		
Does the site promote joint use of parks, libraries, museums, and other public services?	CCR, Title 5 § 14010(o)	Section 3.15 Public Services, Question (f)
Transportation		
Is the proposed school site within 1,500 feet of a railroad track easement?	CCR, Title 5 § 14010(d)	Section 3.17 Transportation, Question (e)
Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?	CCR, Title 5 § 14010(k)	Section 3.17 Transportation, Question (f)
Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?	CCR, Title 5 § 14010(l)	Section 3.17 Transportation, Question (g)

3.0 CEQA ENVIRONMENTAL CHECKLIST

3.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Impact Analysis

a. Would the project have a substantial effect on a scenic vista?

Policy 1.K.1 of the Placer County General Plan (Placer County 1994) Land Use Element defines scenic areas as river canyons, lake watersheds, scenic highway corridors, ridgelines and steep slopes. The proposed project would not be located in a river canyon or lake watershed, on a ridgeline or steep slope, nor would it be located along a scenic highway corridor. This impact would be less than significant.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

According to the California Department of Transportation (Caltrans), the nearest Eligible State Scenic Highway is State Route 49 in Placer County, which is approximately 2.0 miles west and south of the proposed project site (Esri 2017). The proposed project site is not visible from State Route 49; therefore, project construction and operation would have no impact on scenic resources within a state scenic highway.

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Views of the project area from publicly accessible vantage points (i.e., Bowman Road and Undercrossing Road) are largely screened by mature trees on the project site. Views of the surrounding areas contain trees and overhead utility poles and lines in the foreground and trees and school-related structures in the middle ground and background. The proposed project includes the removal of trees in order to develop recreational fields, a parking lot with safety lighting, and equipment/storage buildings (approximately 15 feet tall). While trees would be removed as part of the proposed project, the proposed project features would be partially screened from publicly accessible vantage points by existing vegetation. Additionally, the proposed project would be consist with the existing visual character of the Bowman Charter School campus. Development of the proposed recreation field, parking lot, and equipment/storage buildings would not degrade the visual quality of the site or surroundings. Impacts would be less than significant.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Construction of the project would take approximately four months to complete and could occur 6:00 a.m. to 8:00 p.m. on weekdays (during daylight savings), 7:00 a.m. to 8:00 p.m. on weekdays (during standard time), and 8:00 a.m. to 6:00 p.m. on Saturdays. It is anticipated that construction activities would cease by 5:00 p.m.; therefore, the use of temporary lighting sources during construction would not be required.

The project would include outdoor safety lighting in the parking lot. Lighting would be provided for adequate illumination for safe access and basic security. Parking lot lighting would be shielded and directional so as to direct light away from surrounding residential land uses. This impact would be less than significant.

3.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Impact Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project area is undeveloped and is currently designated Other Land on the 2018 Placer County Farmland Mapping and Monitoring Program (DOC 2018). Other Land is defined as "low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or aquaculture facilities, strip mines, borrow pit and water bodies smaller than 40 acres" (DOC 2018). The proposed project would not convert Important Farmland to non-agricultural use.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The proposed project area is zoned Office Professional-Combining Design Scenic Corridor-Combining Development Reserve (OP-DC-DR-AO). The site is not actively used for agricultural use. Likewise, the project area is not under a Williamson Act Contract. There would be no conflict with existing zoning for agricultural use or a Williamson Act contract.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The project site is surrounded by rural residential and school-related uses. The site's existing zoning "Office Professional-Combining Design Scenic Corridor-Combining Development Reserve" does not support the definitions provided by Public Resources Code (PRC) Section 42526 for timberland, PRC Section 12220(g) for forestland, or Government Code Section 51104(g) for timberland zoned for production. Therefore, no impacts related to the conversion of timberlands or forest land would occur.

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use?

As discussed in the response 3.2.1(c), the project site is surrounded by rural residential and school-related uses. Implementation of the project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No forest land is located within the project site or the vicinity of the project site. Implementation of the proposed project would not result in changes to the environment that, due to its location or nature, could result in the conversion of farmland to non-agricultural use or converting forest land to non-forest use. Therefore, no impact would occur.

3.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐
e. Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?	☐	☐	☒	☐
f. Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (b) freeways and other busy traffic corridors; (c) large agricultural operations; and/or (d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances, or waste?	☐	☐	☒	☐

3.3.1 Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The project site is located within the Sacramento Valley Air Basin (SVAB) and is under the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). The SVAB is designated nonattainment for the federal particulate matter 2.5 microns in diameter ($PM_{2.5}$) and the State particulate matter 10 microns in diameter (PM_{10}) standards, as well as for both the Federal and State ozone standards.

Potential air quality impacts associated with short-term construction and long-term operations were evaluated in accordance with PCAPCD-recommended and the California Air Resources Board (CARB-) approved methodologies. Construction and operational emissions of criteria air pollutants were compared with the applicable thresholds of significance (described below) to determine potential impacts. PCAPCD's significance

thresholds are used to determine whether the project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and also serve as proxy to determine the potential for the project to conflict with or obstruct implementation of any applicable air quality plan.

Implementation of the proposed project would contribute local emissions in the area during both the construction and operation of the proposed project. The California Emissions Estimator Model (CalEEMod), Version 2020.4.0, was used to estimate construction emissions for the proposed project. For purposes of this CalEEMod analysis, the construction schedule was estimated to be 4 months, starting in spring 2023. Default assumptions (e.g., construction fleet activities) from CalEEMod were used. Appendix A contains CalEEMod output worksheets. Results are summarized in Table 2.

Table 2: Project Construction Emissions

	Emissions (lbs/day)					
	CO	**NO_x**	**ROC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Year 2023	18.6	27.6	3.4	0.04	21.1	11.3
PCAPCD Significance Threshold	N/A	82.0	82.0	N/A	82.0	82.0
Exceed Threshold?	No	No	No	No	No	No

Source: Compiled by SSS, Inc. (2022).
CO = carbon monoxide
N/A = Not Applicable
NO_X = nitrogen oxides
PCAPCD = Placer County Air Pollution Control District
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROC = reactive organic compounds
SO_X = sulfur oxides
Lbs/day = pounds per day

As shown in Table 2, construction emissions associated with the proposed project would be below PCAPCD thresholds; therefore, construction-related emissions would be less than significant.

CalEEMod was also used to estimate long-term operational emissions, as well as emissions associated with area and energy sources (i.e., natural gas combustion, landscape maintenance, periodic architectural coating, and consumer products). Model results are shown in Table 3. Appendix A contains model output worksheets.

As shown in Table 3, project-related long-term air emissions would occur primarily from vehicle trips associated with the proposed project (i.e., mobile source emissions). Project-related long-term air emissions would also occur from the use of landscape equipment and from the use of consumer products (i.e., area sources).

Table 3: Project Operation Emissions

	Emissions (lbs/day)					
	CO	**NO_x**	**ROC**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Energy Source Emissions	0.0	0.0	0.0	0.0	0.0	0.0
Area Source Emissions	0.005	0.00004	0.02	0.0	0.00002	0.00002
Mobile Source Emissions	0.3	0.05	0.03	0.0005	0.06	0.02
PCAPCD Significance Threshold	N/A	55.0	55.0	N/A	82.0	82.0
Exceed Threshold?	No	No	No	No	No	No

Source: Compiled by SSS, Inc. (2022).
CO = carbon monoxide
N/A = Not Applicable
NO_X = nitrogen oxides
PCAPCD = Placer County Air Pollution Control District
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROC = reactive organic compounds
SO_X = sulfur oxides
tons/yr = tons per year

The results shown in Table 3 indicate the project would not exceed the significance criteria for daily NO_x, ROC, or PM_{10} or $PM_{2.5}$ emissions. The PCAPCD does not have significance thresholds for CO or sulfur oxides (SO_x); however, as indicated in Table 3, the proposed project is not expected to generate substantial CO or SO_x emissions. Therefore, the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and impacts would be less than significant. No mitigation is required.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The proposed project would not, by itself, result in any air pollutant emissions exceeding PCAPCD's significance thresholds as discussed above. Individually, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in nonattainment. Therefore, the proposed project would have a less than significant impact.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

During construction, diesel equipment would be operating. Diesel particulate matter (DPM) is known to the State of California as a toxic air contaminant (TAC). The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the California Air Pollution Control Officers' Association (CAPCOA's) Air Toxics "Hot Spots" Program Risk Assessment Guidelines as 24 hours per day, seven days per week, 365 days per year, for 70 years. DPM would be emitted during the short term of construction assumed for the proposed project from heavy equipment used in the construction process. Because diesel exhaust particulate matter is considered carcinogenic, long-term exposure to diesel exhaust emissions has the potential to result in adverse health impacts. Due to the short-term nature of project construction, impacts from exposure to diesel exhaust emissions during construction and the proposed long-term recreational use on the site would be less than significant.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The CEQA guidelines indicate that a significant impact would occur if the proposed project would create objectionable odors affecting a substantial number of people. Construction of

the proposed project would emit diesel exhaust and volatile organic compounds, which are objectionable to some; however, emissions will disperse rapidly from the project site and the activity would be temporary. Impacts due to objectionable odors would be less than significant.

e. Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?

Busy traffic corridors are defined as 100,000 vehicles per day in an urban area as defined by the California Department of Education. The nearest highway is I-80, which is located approximately 350 feet southeast of the proposed project area. While the proposed project site is within 500 feet of an existing freeway, the project does not involve placement of a school. This impact would be less than significant.

f. Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (b) freeways and other busy traffic corridors; (c) large agricultural operations; and/or (d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances, or waste?

Within one-quarter mile of the proposed project area are rural residential and school-related uses. Given the domestic and institutional uses that occur on surrounding lands, these uses would not create an air quality hazard for the proposed project. As discussed in response 3.3 (e), the nearest highway is approximately 350 feet (0.07 mile) from the proposed project area; however, the proposed project would develop a recreational field adjacent to the existing Bowman Charter School campus. The proposed project would not cite a new school facility at the proposed project site. Agricultural operations (orchard) are located 500 feet (0.10 mile) north of the proposed school site; however, the orchard is associated with a local residence. The project area is located approximately 880 feet (0.17 mile) southeast of the existing Union Pacific line. While the proposed project area is located within 0.25 mile of a highway, agricultural uses, and a rail line, the existing campus is located at the same distance from these uses, which are not anticipated to emit hazardous air emissions or handle hazardous of acutely hazardous material, substances, or waste. This impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

3.4.1 Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The project site is undeveloped and consists of ruderal grassland, foothill pine-interior live oak woodland, and willow riparian scrub. A search of the California Department of Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) Auburn 7.5-minute quadrangle identified 24 occurrences of special-status plant and animal species. The proposed project site is within the known range for American peregrine falcon (*Falco peregrinus anatum*). This protected species may traverse the project area during foraging. While it is unlikely this species nests in the trees on the project site, other common native and non-native bird species may find shelter and nesting opportunities within the trees on and adjacent to the project site. Therefore, implementation of **Mitigation Measure BIO-1** would reduce impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA) to a less-than-significant level.

With implementation of Mitigation Measure BIO-1, construction and operation of the proposed project would not impact species identified as candidate, sensitive, or special-status in local or regional plans, policies, and regulations.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

WRA, Inc. prepared a preliminary aquatic resources assessment for the project site that identified riverine wetlands within the project site. Based on the current site plan, the riverine wetlands would be impacted as a result of site access and parking lot development. The aquatic features identified in the preliminary delineation report have not been verified by the U.S. Army Corps of Engineers (USACE) or the Central Valley Regional Water Quality Control Board (RWQCB), and jurisdictional status of waters (Waters of the U.S. and/or Waters of the State) has not been determined. Wetland habitats are considered sensitive under CEQA and may be regulated by the USACE, RWQCB, and/or CDFW if the community is determined to be waters of the U.S. or waters of the State. If impacts to the riverine wetlands cannot be avoided, implementation of **Mitigation Measure BIO-2** would be required to reduce the potential for impacts to wetland riverine wetlands to a less-than-significant level.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

See Response to Checklist question 3.4.1(b).

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project site may support the movement of native wildlife species such as deer and bird species. During the construction phase, the presence of construction equipment and personnel may deter species from moving through the project site. However, once the project is in operation wildlife would not be obstructed from using the site for movement. The water features onsite do not support fish species. This impact would be less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Placer County has adopted a Woodland Conservation Ordinance (Chapter 19, Article 19.50 Placer County Code). The ordinance applies to all native, landmark trees, and riparian zone trees in Placer County. Protected trees include all oaks and native trees greater than 6 inches in circumference (measured 4.5 feet above ground) and trees of any species with a landmark tree designation. The project would be required to comply with Chapter 19, Article 19.50 Placer County Code regarding tree protection and removal standards during construction.

The project would require tree removal, and therefore, would require a Tree Permit from Placer County Community Development Resource Agency to mitigate tree removal for the project. Implementation of **Mitigation Measures BIO-3** and **BIO-4** would reduce impacts related to tree removal and would therefore result in consistency with the County's Woodland Conservation Ordination. This impact would be less than significant with mitigation implementation.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

As defined by the Placer County Conservation Plan (PCCP), the project site is located in Plan Area B2 of the PCCP. The project would be required to comply with the permitting and mitigation requirements of the PCCP. Implementation of **Mitigation Measure BIO-5** would reduce potential conflicts with the provisions of the PCCP to a less-than-significant level.

3.4.2 Mitigation Measures

Mitigation Measure BIO-1: Tree removal and construction activities shall be scheduled to commence prior to the beginning of nesting activity (March 1) or after fledging (August 15). If this is infeasible, the District shall retain a biologist to conduct pre-construction surveys between March 1 and August 15 in potential nesting habitat to identify nest sites. Surveys should be conducted within one week of tree removal and the start of construction to identify active nests prior to the initiation of construction activities. If an active raptor nest is observed within 350 feet of the project site, the District shall contact California Department of Fish and Wildlife (CDFW) for guidance and/or establish a 350-foot buffer around the nest tree. If a passerine bird nest is observed within 100 feet of the project site, the District shall contact CDFW for guidance and/or establish a 100-foot buffer around the nest tree. If construction activities cannot be prohibited within the established buffers until young have fledged, District consultation with CDFW shall be conducted for a reduced buffer zone based on nesting phenology, site conditions, and recommendation(s) of a biological monitor. The District shall prohibit construction activities in the buffer zone until the young have fledged.

Mitigation Measure BIO-2: The following measures shall be implemented to reduce potential impacts to riverine wetlands to a less than significant level.

1. A formal jurisdictional waters delineation in accordance with the USACE Routine Approach for small areas (i.e., equal to or less than 5 acres) shall be conducted. The survey will include collection of data on soils, hydrology, and vegetation, where necessary, to determine the extent of potential waters of the U.S. in the project area. In addition, the delineation shall be conducted in accordance with the USACE Arid West Regional Supplement to the Wetland Delineation Manual (September 2008).
2. If the project would result in the loss of wetlands and/or non-wetland waters, mitigation shall be accomplished by purchasing credits at an approved mitigation bank, payment of in-lieu fees, or a combination of these methods. Mitigation ratios shall be at least 1:1.

3. The District shall obtain any necessary regulatory permits prior to the commencement of ground disturbing activities.

Mitigation Measure BIO-3: The following measure shall be implemented to reduce impacts associated with tree removal.

1. The District shall commission a tree survey prepared by an arborist or registered professional forester containing specific information on the location, condition, potential impacts of development, recommended actions and mitigation measures regarding the trees on the project site. The arborist report shall include the type of tree (common and scientific name), circumference (measured 2 feet above grade), health, suitability for preservation, whether the tree will be removed or protected in place, a map with tree trunk and canopy locations, photos of ordinance sized trees (as applicable), and replacement ratios.
2. The District shall mitigate for tree removal at the replacement ratios defined in the tree survey report and in accordance with the requirements identified in the Placer County Tree Permit, whichever is more stringent.

Mitigation Measure BIO-4: The District shall submit a Tree Permit application to the Placer County Community Development Resource Agency during final design. Prior to ground-disturbing activities, the District shall implement the conditions of the issued Tree Permit.

Mitigation Measure BIO-5: The District shall commission a biological resources survey prepared by a qualified biologist in support of the preparation of an application for the Placer County Conservation Plan (PCCP). Prior to ground-disturbing activities, the District shall implement the conditions of the issued PCCP Permit.

3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

3.5.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

As discussed in the cultural resources report prepared for the project (Dudek 2019a), one historic structure, the Bowman School itself, was identified within the school property but outside of the study area as a result of the records search. The existing school was originally constructed in 1950 and then given additions primarily over the following decade. The school has not been evaluated for listing in the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP). The project as currently proposed would create athletic fields and ancillary buildings adjacent to the school but proposes no changes to the school buildings themselves, so there would be no alterations to the historic resource. While not anticipated, the potential exists that construction of the proposed project would result in impacts to unknown historic resources. Implementation of **Mitigation Measure CULT-1** would reduce impacts to unknown historic resources to less than significant.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

As discussed in the cultural resources report prepared for the project (Dudek 2019a), no archaeological resources were identified within the project study area or immediate vicinity as a result of intensive pedestrian survey and the California Historic Resources Information System (CHRIS) records search. The project study area displays considerable disturbance from construction and maintenance of the school; however, it is always possible that intact archaeological deposits are present at subsurface levels. Based on geomorphological evidence, the area has a relatively low potential to contain unanticipated cultural resources; however, the potential exists that construction of the proposed project would result in impacts to undiscovered archaeological resources. Implementation of **Mitigation Measure CULT-1** would reduce impacts to undiscovered archaeological resources to less than significant.

c. Would the project disturb any humans remains, including those interred outside of formal cemeteries?

Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Additionally, Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during project implementation.

While no human remains were indicated through the records search, or found during field surveys, implementation of **Mitigation Measure CULT-2** would ensure that all construction activities that inadvertently discover human remains implement state-required consultation methods to determine the disposition and historical significance of any discovered human remains.

3.5.2 Mitigation Measures

Mitigation Measure CULT-1: A qualified archaeologist shall provide a Worker Environmental Assessment Training to all construction crews to alert the crews to the potential to encounter archaeological material. In the event that cultural resources (sites, features, or artifacts) are exposed during work activities for the proposed project, all ground disturbing work occurring within 100 feet of the find shall immediately stop until a qualified specialist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether additional study is warranted. Prehistoric archaeological deposits may be indicated by the presence of discolored or dark soil, fire-affected material, concentrations of fragmented or whole freshwater bivalves shell, burned or complete bone, non-local lithic materials, or the characteristic observed to be atypical of the surrounding area. Common prehistoric artifacts may include modified or battered lithic materials; lithic or bone tools that appeared to have been used for chopping, drilling, or grinding; projectile points; fired clay ceramics or non-functional items; and other items. Historic-age deposits are often indicated by the presence of glass bottles and shards, ceramic material, building or domestic refuse, ferrous metal, or old features such as concrete foundations or privies. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation and implementation of an archaeological treatment plan, testing, or data recovery may be warranted.

Mitigation Measure CULT-2: In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the county coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the county coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete his/her inspection within 48 hours of being granted access

to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

3.6 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

The proposed project would not have a direct or cumulative impact, or create wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation of the proposed project. Also, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The only energy consumed would be through fossil fuels (gasoline and diesel operated equipment) during construction-related activities and operation of the parking lot lights and electricity in the field equipment/storage buildings. The proposed lighting and lighting control systems would be in compliance with requirements of the current California Energy Commission efficiency standards for non-residential buildings. Therefore, the proposed project would result in a less-than-significant impact related to wasteful, inefficient, or unnecessary consumption of energy resources.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Title 24 is designed to provide certainty and uniformity throughout California while ensuring that the efficient and non-wasteful consumption of energy is carried out through design features. Adherence to Title 24 is deemed necessary to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. The proposed lighting and lighting control systems would be in compliance with requirements of the current California Energy Commission efficiency standards for non-residential buildings. The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.

3.7 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Impact Analysis

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The project site is not within a designated State of California Alquist-Priolo Earthquake Fault Zone. The nearest fault is in the West Tahoe Fault, which is located 50 miles east of the project area. Therefore, given the distance to the nearest fault zone, impacts to the project area from rupture of a known earthquake fault would be less than significant.

ii. Strong seismic ground shaking?

The project lies within a potentially seismically active area. Faults in the project region and according to the California Geological Survey Fault Activity Map of California are late Quaternary (<700,000 years). The project does not include the construction of housing or other amenities that would increase the number of people exposed to seismic hazards. This impact would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and some gravelly soils. Cohesive soils are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces or deep foundations are present.

Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary but essentially total loss of shear strength under the reversing, cyclic shear stresses associated with earthquake shaking. Submerged cohesionless sands and silts of low relative density are the type of soils, which usually are susceptible to liquefaction. Clays are generally not susceptible to liquefaction.

The California Office of Emergency Services MyHazards web viewer indicates that the project area is not located in an area requiring liquefaction investigation. This impact would be less than significant.

iv. Landslides?

Landslides have not been observed in the project area. The project site is situated on relatively flat topography. There are no geologic landforms on or near the site that could result in a landslide event. Therefore, there is no risk of landslides within or near the project area.

b. Would the project result in substantial soil erosion or the loss of topsoil?

During the construction preparation process, existing vegetation would be removed to grade and compact the project site, as necessary. As construction occurs, these exposed surfaces could be susceptible to erosion from wind and water. Effects from erosion include impacts on water quality and air quality. Exposed soils that are not properly contained or capped increase the potential for increased airborne dust and increased discharge of sediment and other pollutants into nearby stormwater drainage facilities. Risks associated with erosive surface soils can be reduced by using appropriate controls during construction and properly re-vegetating exposed areas. Implementation of various best management practices (BMPs)

associated with the project-specific Stormwater Pollution Prevention Plan (SWPPP) (see **Mitigation Measure HYD-1**) would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction activities. The implementation of BMPs included in the required SWPPP would ensure these impacts are less than significant.

c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

According to the U.S. Department of Agriculture Web Soil Survey, the project area is underlain by Auburn silt loam, 2 to 15 percent slopes and Xerorthents, Placer. The soils within the project area are well-drained with a low to moderate shrink-swell potential. Project features (i.e., recreational field and equipment/storage buildings) would be installed/constructed on relatively level, stable soils and would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. This impact would be less than significant.

d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

According to the U.S. Department of Agriculture Web Soil Survey, the project area is underlain by Auburn silt loam, 2 to 15 percent slopes and Xerorthents, Placer. The soils within the project area are well-drained with a low to moderate shrink-swell potential. This impact would be less than significant.

e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

The project would not include installation of septic tanks. Therefore, the capability of the soils to support the operation of such tanks does not need to be evaluated. No impact would occur in association with construction and operation of the project.

f. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The project site is not expected to contain subsurface paleontological resources. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria. Implementation of **Mitigation Measure GEO-1** would ensure steps would be taken to reduce impacts to paleontological resources in the event that they are discovered during construction. This would ensure that any potentially significant impacts to paleontological resources would be reduced to a less-than-significant level.

3.7.1 Mitigation Measures

Mitigation Measure GEO-1: If paleontological resources are discovered during the course of construction, work shall be halted immediately within 165 feet of the discovery, Placer County shall be notified, and a qualified paleontologist shall be retained to determine the significance of the discovery. If the paleontological resource is considered significant, it should be excavated by a qualified paleontologist and given to a local agency, State University, or other applicable institution, where they could be curated and displayed for public education purposes.

3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
g. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Impact Analysis

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Greenhouse gas (GHG) emissions of primary concern from land use projects include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Construction-related activities resulting in exhaust emissions may come from fuel combustion for heavy-duty diesel and gasoline-powered equipment, portable auxiliary equipment, material delivery trucks, and worker commuter trips. Operational GHG emissions would result from motor vehicle trips generated by the visitors, as well as onsite fuel combustion for landscape maintenance equipment.

The California Global Warming Solutions Act (AB32) signed into law in September 2006, requires statewide GHG emissions to be reduced to 1990 levels by 2020. AB32 established regulatory, reporting, and market mechanisms to achieve this goal and provides guidance to help attain quantifiable reductions in emissions efficiently, without limiting population and economic growth. In September of 2016, Senate Bill (SB) 32 was signed by the Governor, to establish a California GHG reduction target of 40 percent below 1990 levels by 2030.

On October 13, 2016, the PCAPCD adopted CEQA significance thresholds for GHG emissions as shown below. The Bright-line Threshold of 10,000 metric tons (MT) carbon dioxide equivalent per year (CO_2e/yr) threshold for construction and operational phases, and the De Minimis level of 1,100 MT CO_2e/yr for operational, were used to determine significance. GHG emissions from projects that exceed 10,000 MT CO_2e/yr would be deemed to have a cumulatively considerable contribution to global climate change. The De Minimis Level for the operational phases of 1,100 MT CO_2e/yr represents an emissions level which can be considered as less than cumulatively considerable and be excluded from the further GHG impact analysis.

Construction of the proposed project would result in GHG emissions that are primarily associated with use of off-road construction equipment and off-site sources including haul trucks, vendor trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions based on the construction scenario. As shown in the CalEEMod output in Appendix A, construction of the proposed project would result in approximately 140 MT CO_2e/yr, while operation of the project would result in approximately 8 MT CO_2e/yr. Thus,

the construction and operation of the project would not generate substantial GHG emissions, either directly or indirectly, which may be considered to have a significant impact on the environment, nor conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG and is therefore considered to have a less than significant impact.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

See Response to Checklist question 3.8.1(a).

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐
h. Is the property line of the proposed school site less than the following distances from the edge of respective powerline easements: (1) 100 feet of a 50-133 kV line; (2) 150 feet of a 220-230 kV line; or (3) 350 feet of a 500-550 kV line?	☐	☐	☒	☐
i. Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?	☐	☐	☒	☐
j. Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site? *(Does not apply to school sites approved by CDE prior to January 1, 1997.)*	☐	☐	☒	☐
k. Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?	☐	☐	☐	☒
l. If a response action is necessary and proposed as part of this project, has it been developed to be protective of children's health, with an ample margin of safety?	☐	☐	☐	☒

3.9.1 Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of the proposed project would require the transport and use of small quantities of hazardous materials in the form of gasoline, diesel, and oil. There is the potential for small leaks due to refueling of construction equipment; however, implementation of BMPs identified in construction specification plans would reduce the potential for accidental release of construction-related fuels and other hazardous materials. These BMPs would prevent, minimize, or remedy storm water contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal and handling of hazardous materials.

Dudek conducted soil sampling of the site in 2019. As discussed in the soil sampling summary memorandum (Dudek 2019b), the site was historically used for agriculture, and there were indications of ongoing weed abatement onsite. Thus, soil sampling was recommended to determine if pesticides, herbicides, and/or metals are present in soil above regulatory screening levels.

The soil sampling event was conducted at the site on July 5, 2019. Soil samples were collected for analysis of arsenic, organochlorine pesticides (OCPs), and herbicides. Areas of potential impacts from arsenic and OCPs were determined based on historical aerial photographs and topographical maps. The area of potential impacts from herbicides were determined based on denuded vegetation observed during the site reconnaissance.

Arsenic was detected in all samples but concentrations were below the maximum background concentration for California soils. OCPs were detected in all samples above laboratory method detection limits, but the concentrations were below the regulatory screening levels. Herbicides in all samples were below the laboratory method detection limits. Therefore, soil disturbance would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Any onsite storage, transport, or use of hazardous materials during the operation of the proposed project would comply with local, state, and federal regulatory requirements.

Therefore, impacts associated with a potential hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction of the proposed project would require the transport and use of small quantities of hazardous materials in the form of gasoline, diesel, and oil. There is the potential for accidental release of hazardous materials; however, implementation of BMPs identified in

construction specification plans would reduce the potential for accidental release of construction-related fuels and other hazardous materials. These BMPs would prevent, minimize, or remedy storm water contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal and handling of hazardous materials.

Any onsite storage, transport, or use of hazardous materials during the operation of the proposed project would comply with local, state, and federal regulatory requirements.

Therefore, impacts associated with a potential hazard to the public or the environment due to accidental release of hazardous materials would be less than significant.

c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The proposed project would include the storage, transport, and use of fuels and other hazardous materials commonly associated with construction activities. All chemical transport, storage, and use would comply with Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); California hazardous waste control law; and Occupational Safety and Health Administration (OSHA) requirements. With the required regulation compliance, potential impacts from the storage, transport, and use of fuels and other hazardous materials to the public or the environment would be less than significant.

d. *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

According to the Department of Toxic Substances Envirostor website, the proposed project is not located on a site which is included on a list of hazardous materials sites nor are there any listed sites within 1,000 feet of the proposed project area. There is no impact associated hazardous materials listings.

e. *Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The nearest airport to the project area is Auburn Municipal Airport, which is 1.7 miles northwest of the project area. While portions of the existing school campus are within the outermost Airspace Surface Protection Zone of the Auburn Municipal Airport, the project area is outside of such zone. Additionally, the existing campus and the proposed project site is outside of compatibility zones as identified in the Airport Land Use Compatibility Plan (PCTPA 2014). Impacts associated with proximity to a public airport and/or exposure of people residing or working in the area to noise from the airport would be less than significant.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project would not interfere with implementation of an emergency response plan or evacuation. There would be no impact.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The California Department of Forestry and Fire Protection (CALFIRE) developed Fire Hazard Severity Zones (FHSZ) for State Responsibility Areas (SRA) and Local Responsibility Areas (LRA). The project site is located in an LRA area with a non-fire hazard designation. Therefore, the project would not result in exposure of people or structures to significant risk of loss injury or death as a result of wildland fire hazards.

h. Is the property line of the proposed school site less than the following distances from the edge of respective powerline easements: (1) 100 feet of a 50-133 kV line; (2) 150 feet of a220-230 kV line; or (3) 350 feet of a 500-550 kV line?

Pursuant to CCR, Title 5, Section 14010(c), the property line for a new school site shall not be the following minimum distances from the edge of a high-voltage power line easement: 100 feet for 50-133 kilovolt (kV) lines; 150 feet for 220-230 kV lines; and 350 feet for 500-550 kV lines. Local utility lines are located along the southern border of the project site; however, these lines would remain and would not be affected by the proposed project. This impact would be less than significant.

i. Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?

Based on an online records search (NPMS 2022), a hazardous liquid pipeline is located within 800 feet of the project site. The pipeline is not anticipated to pose a safety hazard to the site. The project site does not contain an aboveground water tank. For these reasons, construction and operation of the project would result in a less than significant impact with regard to safety hazards.

j. Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site? (Does not apply to school sites approved by CDE prior to January 1, 1997.)

The project site is designated as Mixed Use on the Placer County General Plan Land Use Map (Placer County 2013). Parcels surrounding the project site are designated as Rural Residential; however, the adjacent rural residential uses are not anticipated to present a public health and safety issue. This impact would be less than significant.

k. Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?

According to the Department of Toxic Substances Envirostor website, the proposed project is not located on a site which is included on a list of hazardous materials sites nor are there any listed sites within 1,000 feet of the proposed project area. There is no impact associated hazardous materials listings.

l. If a response action is necessary and proposed as part of this project, has it been developed to be protective of children's health, with an ample margin of safety?

As discussed in Response 3.9.1(k), the proposed project is not located on a site which is included on a list of hazardous materials sites. No response action is necessary. No impact would result from the need for a response action.

3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Development of a property may result in two types of water quality impacts: (1) short-term impacts due to construction related discharges; and (2) long-term impacts from operation or changes in site runoff characteristics. Runoff may carry onsite surface pollutants to water bodies such as lakes, streams, and rivers that ultimately drain to the ocean. Projects that increase urban runoff may indirectly increase local and regional flooding intensity and erosion.

As required by the State Water Resources Control Board's (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit (No. 2012-0006-DWQ) for stormwater discharges associated with construction and land disturbance activities, the District must develop and implement a SWPPP that specifies BMPs to prevent construction pollutants from contacting stormwater, with the intent of keeping all products of erosion from moving offsite. The District would be required to comply with the Construction General Permit because project-related construction activities would result in soil disturbances of at

least 1 acre of total land area. **Mitigation Measure HYD-1** requires the preparation and implementation of a SWPPP to comply with the Construction General Permit requirements. With implementation of Mitigation Measure HYD-1, the project would not violate any water quality standards or waste discharge requirements (WDRs) during the construction period, and impacts would be less than significant.

The project would not increase the intensity of use from that presently found onsite. Project operation would not alter the runoff presently leaving the site. Therefore, potential violations of water quality standards or waste discharge requirements would be less than significant during project operation.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The proposed project does not propose the installation of any water wells that would directly extract groundwater. Additionally, the increase in impervious surface cover that would occur with the proposed project would be negligible and would not reduce the amount of water percolating down into the ground. Therefore, impacts to groundwater supplies or recharge would be less than significant.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site;

The proposed project is situated on relatively flat topography. Construction of the proposed project would require ground disturbance associated with development of a recreational field, parking lot, and equipment/storage buildings. With the implementation of BMPs identified in the project SWPPP (Mitigation Measure HYD-1), impacts associated with erosion or siltation would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

The proposed project would increase the impervious surface at the project site in the proposed parking lot and associated with foundations for the equipment/storage buildings. The increase in impervious surface would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite, as the project has been designed to accommodate project runoff. This impact would be less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

The project site is located adjacent to the existing school campus that is served by a developed stormwater drainage system. Flood control in the vicinity is provided by a network of box culverts, underground storm drainpipes, and open channels. No substantial changes to the existing drainage pattern of the area are proposed, and no streams, rivers, or drainage channels that contribute runoff to the local drainage network would be impacted by the project. This impact would be less than significant.

iv. Impede or redirect flood flows?

The project is located in an area of minimal flood hazard. The project would not place structures within a 100-year flood hazard area that would impede or redirect flood flows; therefore, no impact would occur.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The proposed project site is not located within a Federal Emergency Management Agency designated 100-year or 500-year floodplain. In addition, the project site is generally level and is not immediately adjacent to any hillsides. As such, the risk from flooding would be low. Furthermore, no enclosed bodies of water are in close enough proximity that would create a potential risk for seiche or a tsunami at the project site. Therefore, there would be no impact related to potential hazards from inundation from flood, tsunami, or seiche.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Pollutants of concern during construction include sediment, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (such as paints, solvents, and fuels), and concrete-related waste may be spilled or leaked during construction. These pollutants may percolate to shallow groundwater from construction activities. However, required compliance with State and local regulations regarding stormwater and dewatering during construction would ensure that the proposed project would result in less-than-significant impacts to water quality during construction.

During operation of the proposed project, stormwater runoff would drain into the County's drainage system or nearby channels. The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This impact is considered less than significant.

3.10.2 Mitigation Measures

Mitigation Measure HYD-1: Prior to ground-disturbing activities, the District shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) that specifies best management practices (BMPs) with the intent of keeping all products of erosion from moving offsite. The SWPPP shall include a site map that shows the construction site perimeter, existing and proposed man-made facilities, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site. Additionally, the SWPPP shall contain a visual monitoring program and a chemical monitoring program for non-visible pollutants to be implemented (if there is a failure of BMPs). The requirements of the SWPPP and BMPs shall be incorporated into design specifications and construction contracts. Recommended BMPs for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly;
- Protecting any existing storm drain inlets and stabilizing disturbed areas;
- Implementing erosion controls;
- Properly managing construction materials; and
- Managing waste, aggressively controlling litter, and implementing sediment controls.

3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
f. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.11.1 Impact Analysis

a. Would the project physically divide an established community?

The project would be located adjacent to the existing school campus. The project would develop a recreational field, parking lot, and equipment/storage buildings. Connectivity between the project site and surrounding areas would be maintained, and no division of an established community would occur. Therefore, no impact would occur.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project would be located adjacent to the existing school campus, which is designated as Mixed Use in the Placer County General Plan. The project does not propose to change the site's existing zoning or land use designation. The proposed construction would comply with applicable land use requirements, policies, zoning, and development standards as required by California law for school districts, and adhere to other applicable state codes and regulations.

The project site is not subject to a specific plan or local coastal program. For these reasons, the project would not conflict with any existing state, regional, county, or local laws, policies, regulations, plans or guidelines. Therefore, this impact would be less than significant.

3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.12.1 Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No valuable locally important mineral resources have been identified on the project site. The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. The presence of mineral resources within Placer County has led to a long history of gold extraction. No quarries or mining sites and no known mineral resources that would be of value are known to occur on the project site or in its vicinity.

The California Department of Mines and Geology (CDMG) is responsible under the California Surface Mining and Reclamation Act of 1975 (SMARA) for the classification and designation of areas which contain (or may contain) significant mineral resources. The purpose of the identification of these areas is to provide a context for land use decisions by local governments in which mineral resource availability is one of the pertinent factors being balanced along with other considerations.

The County's aggregate resources are classified as one of several different mineral resource zone categories (MRZ- 1, MRZ-2, MRZ-3, MRZ-3(a), and MRZ-4). These classifications are generally based upon the relative knowledge concerning the resource's presence and the quality of the material. Of the five classifications listed in the table, only MRZ-1 occurs within the project site. MRZ-1 zone areas are where adequate information indicates that no significant mineral deposits are present. Implementation of the proposed project would not interfere with the extraction of any known mineral resources. Therefore, there is no impact.

b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

See Response to Checklist question 3.12.1(a).

3.13 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
d. Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the education program?	☐	☐	☒	☐

3.13.1 Impact Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Noise impacts from construction activities are a function of the noise generated by the operation of construction equipment and on-road delivery and worker commuter vehicles, the location of equipment, and the timing and duration of the noise-generating activities. For the purpose of this analysis, it was estimated that the construction of the proposed project would begin in Spring of 2023 and be completed in 4 months.

Construction would comply with the Placer County Noise Ordinance, which limits construction to the hours of 6:00 a.m. to 8:00 p.m. on weekdays (during daylight savings), 7:00 a.m. to 8:00 p.m. on weekdays (during standard time), and 8:00 a.m. to 6:00 p.m. on Saturdays.

Average noise levels from construction activities would be higher than the ambient noise levels in the site vicinity for the 4-month construction window. Construction noise levels would fluctuate as activities start and stop and as workers and equipment move around the site. However, given the temporary nature of the construction activities, the noise levels anticipated during construction, and compliance with the County's Noise Ordinance, this impact would be less than significant. As such, temporary construction noise levels would not exceed levels established by the County's Noise Ordinance and noise impacts during the daytime would be less than significant.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction activities that might expose persons to excessive ground borne vibration or ground borne noise have the potential to cause a significant impact. Ground borne vibration information related to construction/heavy equipment activities has been collected by Caltrans. The Caltrans data indicates that transient vibrations (such as from demolition activity) with a peak particle velocity (PPV) of approximately 0.035 inches per second may be characterized as barely perceptible, and vibration levels up to 0.25 inches per second may be characterized as distinctly perceptible (Caltrans 2013). Caltrans (2013) uses a damage threshold of 0.2 inches per second PPV for conventional buildings.

Ground borne vibration is typically attenuated over relatively short distances. With the anticipated construction equipment, construction-related vibration levels would be approximately 0.127 inches per second PPV at 25 feet from the construction area (assuming simultaneous operation of a caisson drill, a jackhammer, and a small bulldozer). At 25 feet, this vibration would be above the threshold of "barely perceptible" level of 0.035 inches per second PPV; however, the nearest residence is approximately 100 feet from the nearest construction area. Additionally, this vibration level (at 25 feet) is well below the distinctly perceptible level of 0.25 inches per second PPV (Caltrans 2013). The expected vibration level at the residential buildings is also expected to be below the Caltrans damage threshold for conventional buildings. Therefore, impacts related to ground borne vibration would be less than significant.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The nearest airport to the project area is Auburn Municipal Airport, which is approximately 1.7 miles northwest of the project area. Impacts associated with proximity to a public airport and/or exposure of people residing or working in the area to noise from the airport would be less than significant.

d. Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the education program?

The proposed project site is located approximately 350 feet from mainline Interstate 80 (I-80). The project site would be used for physical education instruction. The site's proximity to I-80 and the noise generated by the freeway is not anticipated to adversely affect the physical education program. This impact would be less than significant.

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
e. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Impact Analysis

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The development of the recreational field, parking lot, and equipment/storage buildings at the project site would serve the existing school and surrounding community population and would not induce population growth. Furthermore, the proposed project would not increase the capacity at the school; therefore, there would be no impact related to unplanned population growth.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site is undeveloped and does not contain housing. Therefore, no housing would be displaced, and there would be no impact to existing housing.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒
b. Does the site promote joint use of parks, libraries, museums, and other public services?	☐	☐	☐	☐

3.15.1 Impact Analysis

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

The proposed project would not generate population growth or add people to the area. Thus, the proposed project would not generate the need for additional fire services that would require new or physically altered facilities. No impact to fire services would occur.

ii. Police protection?

The proposed project would not generate population growth or add people to the area. Thus, the proposed project would not generate the need for additional police services that would require new or physically altered facilities. No impact to police services would occur.

iii. Schools?

The proposed project would develop a recreational field, parking lot, and equipment/storage buildings adjacent to the existing school campus. The proposed project would serve the existing population and would not induce population growth. Therefore, the proposed project would not increase demand for schools or necessitate construction of new school facilities. No impact would occur.

iv. Parks?

The proposed project would develop a recreational field, parking lot, and equipment/storage buildings adjacent to the existing school campus. The proposed project would serve the existing population and would not induce population growth. Therefore, the proposed project would not increase demand for parks. No impact would occur.

v. Other public facilities?

The proposed project would develop a recreational field, parking lot, and equipment/storage buildings adjacent to the existing school campus. The proposed project would serve the existing population and would not induce population growth. Therefore, the proposed project would not increase demand for public facilities or services. No impact would occur.

b. Does the site promote joint use of parks, libraries, museums, and other public services?

The Civic Center Act, as defined in the State of California Education Code Sections 38130-38139, describes the uses of school facilities, including all buildings and grounds for public purposes, and the fees that may be assessed. Section 38131(b)(1) states:

> "(b) The governing board of any school district may grant the use of school facilities or grounds as a civic center upon the terms and conditions the board deems proper, subject to the limitations, requirements, and restrictions set forth in this article, for any of the following purposes:(1) Public, literary, scientific, recreational, educational, or public agency meetings . . .(6) Supervised recreational activities including, but not limited to, sports league activities for youths that are arranged for and supervised by entities, including religious organizations or churches, and in which youths may participate regardless of religious belief or denomination" (California Education Code 1996).

The proposed project site would be available for use per Civic Center Act requirements. Therefore, the project would promote the joint use of athletic facilities located onsite. This impact would be less than significant.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed project would develop a recreational field, parking lot, and equipment/storage buildings adjacent to the existing school campus. The project would serve the region's existing population and would not induce population growth. Regular and continued maintenance of the fields by District field maintenance staff would ensure that substantial deterioration of the field would not occur or be accelerated. Therefore, impacts would be less than significant.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project would develop a recreational field, parking lot, and equipment/storage buildings adjacent to the existing school campus. The proposed project would develop a recreational field and parking lot adjacent to the existing school campus. The proposed project does not include new recreational facilities and would not require the construction or expansion of recreational facilities. Therefore, no impact would occur.

3.17 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒
e. Is the proposed school site within 1,500 feet of a railroad track easement?	☐	☐	☒	☐
f. Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?	☐	☐	☐	☒
g. Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?	☐	☐	☐	☒

3.17.1 Impact Analysis

a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Project construction activities associated with the recreation field and parking lot would occur over a 4-month period. During project construction, the proposed project would not require closure of any streets or interfere with vehicle, pedestrian, bicycle, or mass transit access. During project construction, vehicles would access work areas directly and would not be staged on the street. Due to the low number of workers required during construction and the hours of construction (6:00 a.m. to 8:00 p.m. weekdays), construction traffic would not substantially change the number vehicle trips on the surrounding roadway network. Therefore, project construction would not cause changes to delay at any intersection, or operation of a roadway segment or freeway segment.

During operations, field use would occur as part of the physical education program during daylight hours. The District anticipates the project would not change the existing land use and would not cause a substantial change in trip generation compared to existing conditions.

Because the proposed project would not result in a substantial increase in traffic on local streets, impacts related to conflicts with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system would be less than significant.

b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?

On September 27, 2013, Governor Jerry Brown signed SB 743 into law and started a process that changes the methodology of a transportation impact analysis as part of CEQA requirements. SB 743 directed the California Office of Planning and Research to establish new CEQA guidance for jurisdictions that removes the level of service (LOS) method, which focuses on automobile vehicle delay and other similar measures of vehicular capacity or traffic congestion, from CEQA transportation analysis.

Rather, vehicle miles traveled (VMT), or other measures that promote "the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses," are now be used as the basis for determining significant transportation impacts in the State.

As the proposed project would only include development of a recreational field for physical education activities, operation of the proposed project would not result in a substantial increase in traffic on local streets. Implementation of the proposed project would not disrupt or otherwise prevent roadway improvements, including the addition of bike paths or sidewalks in the vicinity of the project site. The project would also not disrupt existing transit services. As such, implementation of the proposed project is not anticipated to generate a substantial increase in VMT and would not conflict with goals related to the reduction of VMT and compliance with SB 743. Therefore, the project would be consistent with State CEQA Guidelines Section 15064.3. Implementation of the proposed project would result in less-than-significant VMT impacts, and no mitigation would be required.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would develop a recreational field, parking lot, and equipment/storage buildings adjacent to the existing school campus. The proposed project would not result in changes to or interfere with the County's vehicular, bicycle, or pedestrian transportation system or increase hazards or incompatible uses. Therefore, there would be no impact regarding hazards due to a design feature or incompatible use.

d. Would the project result in inadequate emergency access?

Access to the proposed project site is from Unk Road. The proposed project would not require closure of any streets and would not interfere with emergency access to the proposed project site or surrounding area. During project construction, vehicles would access the work areas directly and would not be staged on the surrounding streets. Therefore, no impact related to interference with an adopted emergency response plan or emergency evacuation plan would occur.

e. Is the proposed school site within 1,500 feet of a railroad track easement?

The nearest railroad track easement is approximately 900 feet north of the project site. The proximity of the existing railroad track to the proposed project site is considered a less than significant impact

f. Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?

The existing school site and primary access point for the proposed project is located on Unk Road. As no changes to existing streets and access driveways are proposed, no impacts related to access and peripheral visibility would occur.

g. Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?

Currently, walkways exist in the vicinity of the proposed project site along Bowman Road. The proposed project does not include modification to existing pedestrian facilities nor does the project propose development of new pedestrian facilities; therefore, there would be no impact to traffic and pedestrian facilities.

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	☐	☐	☒	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

3.18.1 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or

The District requested a Sacred Lands Inventory on file with the NAHC, to date, a response has not been received; however, the District notified 7 Native American tribal representatives consistent with AB 52 requirements (see Appendix C); no responses have been received. However, in the unlikely event that unrecorded resources are discovered during construction activities, compliance with the California Public Resources Code would reduce this potential impact to less than significant.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The District requested a Sacred Lands Inventory on file with the NAHC, to date, a response has not been received; however, the District notified 7 Native American tribal representatives consistent with AB 52 requirements (see Appendix C); no responses have been received. However, in the unlikely event that unrecorded resources are discovered during construction activities, compliance with the California Public Resources Code would reduce this potential impact to less than significant.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐

3.19.1 Impact Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed project would develop a recreational field, parking (with safety lighting), and equipment/storage buildings on the existing school campus. Construction of the proposed project would require the use of water systems. While operation of the proposed project would require the use of water systems associated with irrigation of the proposed field and landscaped areas, the utility services required of the proposed project would not necessitate the relocation or construction of new or expanded facilities. This impact would be less than significant.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The proposed project would develop a recreational field, parking (with safety lighting), and equipment/storage buildings on the existing school campus. Construction of the proposed project would require the use of water for dust suppression. While operation of the proposed project would require water for the irrigation of the recreational field and landscaped areas,

operation of the proposed project would not result in a substantial increase in water use. This impact would be less than significant.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project would develop a recreational field, parking (with safety lighting), and equipment/storage buildings on the existing school campus. Operation of the proposed project would not require the use of wastewater systems. No impact would occur.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of the proposed project would produce minimal quantities of solid waste during project construction. The 2019 CALGreen Code (Title 24, Part 11 of the California Code of Regulations) requires all construction contractors to reduce construction waste and demolition debris by 65 percent. Code requirements include preparing a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted onsite or mixed; and identifying diversion facilities where the materials collected will be taken. The code also specifies that the amount of materials diverted should be calculated by weight or volume, but not by both (California Building Standards Commission 2019). In addition, the 2019 CalGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

Additionally, operation of the proposed project would not result in a significant increase in solid waste generation.

The project would comply with all statutes and regulations related to solid waste. Compliance with the CalGreen Code and AB 1826 would ensure that sufficient landfill capacity would be available to accommodate solid-waste disposal needs for future development. Therefore, the project would have a less than significant impact.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed project would develop a recreational field, parking lot, and equipment/storage buildings on the existing school campus and would produce minimal quantities of solid waste during project construction. The proposed project would comply with federal, state, and local statutes and regulations related to solid waste and solid waste reduction during project construction and operation. Therefore, the proposed project would result in less than significant impacts related to solid waste regulations.

3.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Impact Analysis

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The proposed project would not interfere with implementation of an emergency response plan or evacuation. There would be no impact.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The California Department of Forestry and Fire Protection (CALFIRE) developed Fire Hazard Severity Zones (FHSZ) for State Responsibility Areas (SRA) and Local Responsibility Areas (LRA). The project site is located in an LRA area with a non-fire hazard designation. Therefore, the project would not result in exposure of people or structures to significant risk of loss injury or death as a result of wildland fire hazards.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The proposed project would not require the installation or maintenance of infrastructure that may exacerbate fire risk. No impact would occur.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips, occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking but can also occur as a result of erosion and downslope runoff caused by rain following a fire. Because the proposed project site is level, the proposed project would not expose people or structures to potential substantial adverse effects associated with landslides. Further, the proposed project site is not located in or near a VHFHSZ nor is it located in or near a SRA. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. As a result, a less-than-significant impact would occur, and no mitigation would be required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Impact Analysis

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Implementation of the mitigation measures recommended in this Initial Study would ensure that construction and operation of the proposed project would not substantially degrade the quality of the environment; reduce the habitat, population, or range of a plant or animal species; or eliminate important examples of California history or prehistory.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The potential impacts of the proposed project are individually limited and are not cumulatively considerable. Implementation of mitigation measures recommended in this report would reduce potentially significant impacts that could become cumulatively considerable.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project would be constructed and operated in accordance with all applicable regulations governing hazardous materials, noise, and geotechnical considerations. Because all potentially significant impacts of the proposed project are expected to be mitigated to less than significant levels, it is unlikely that implementation of the proposed project would cause substantial adverse effects on human beings. As a result, less than significant impacts would occur with implementation of the recommended mitigation measures.

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4.0 REFERENCES

California Building Standards Commission. 2019. 2019 CALGreen Code.

California Department of Conservation. 2018. Placer County Farmland Mapping and Monitoring Program. Available: https://maps.conservation.ca.gov/DLRP/CIFF/ Accessed October 1, 2022.

California Department of Forestry and Fire Protection (CALFIRE). 2019. Fire Hazard Severity Zone Maps. Available: https://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/. Accessed October 2022.

California Department of Toxic Substances. 2022. EnviroStor website. Available: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=auburn%2C+ca. Accessed September 2022.

California Office of Emergency Services. 2015. MyHazards. Available: http://myhazards.caloes.ca.gov/. Accessed October 2022.

Caltrans (California Department of Transportation). 2013. Transportation- and Construction-Induced Vibration Guidance Manual. Sacramento, California: Caltrans Noise, Vibration and Hazardous Waste Management Office. September 2013.

Dudek. 2019a. Cultural Resources Inventory Report for the Bowman School Field Project, Auburn, California – Negative Findings. June 19.

_____. 2019b. Soil Sampling for Bowman Charter School Field Project, Placer County, California, APNs 053-090-024 and 053-090-023. August 12.

Esri. 2017. California Scenic Highways. https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=f0259b1ad0fe4093a5604c9b838a486a. Accessed September 2022.

National Pipeline Mapping System. 2019. Public Viewer. Available: https://pvnpms.phmsa.dot.gov/PublicViewer/ Accessed: October 2022.

Placer County. 1994. Placer County General Plan Draft Environmental Impact Report.

_____. 2013. Placer County General Plan Land Use Map. May.

Placer County Transportation Planning Agency. 2014. Auburn Municipal Airport Land Use Compatibility Plan.

U.S. Department of Agriculture. 2022. Web Soil Survey. Available: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed September 2022.

WRA, Inc. 2021. Delineation of Potential Jurisdictional Waters of the U.S. and Waters of the State of California, Bowman Charter School, Auburn, Placer County, California. December.

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APPENDIX A

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Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Bowman Charter School

Placer-Mountain Counties County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	5.00	Acre	5.00	217,800.00	0
Parking Lot	41.00	Space	0.37	16,400.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	2			**Operational Year**	2024
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Estimated duration based on proposed facilites and site size.

Trips and VMT - Estimated worker and vendor numbers based on proposed facilities and project size.

Architectural Coating - For equipment storage

Operational Off-Road Equipment -

Land Use Change -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	0.00	5,800.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	230.00	30.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	5/17/2024	6/30/2023
tblConstructionPhase	PhaseEndDate	3/22/2024	5/19/2023
tblConstructionPhase	PhaseEndDate	3/24/2023	2/26/2023
tblConstructionPhase	PhaseEndDate	5/5/2023	4/7/2023
tblConstructionPhase	PhaseEndDate	4/19/2024	6/16/2023
tblConstructionPhase	PhaseEndDate	4/7/2023	3/10/2023
tblConstructionPhase	PhaseStartDate	4/20/2024	6/19/2023
tblConstructionPhase	PhaseStartDate	5/6/2023	4/10/2023
tblConstructionPhase	PhaseStartDate	4/8/2023	3/13/2023
tblConstructionPhase	PhaseStartDate	3/23/2024	5/22/2023
tblConstructionPhase	PhaseStartDate	3/25/2023	2/27/2023
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	38.00	15.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	12.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	98.00	24.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00

2.0 Emissions Summary

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3724	27.5561	18.6311	0.0393	19.8103	1.2667	21.0770	10.1431	1.1654	11.3085	0.0000	3,809.3330	3,809.3330	1.1955	0.0510	3,840.2070
Maximum	**3.3724**	**27.5561**	**18.6311**	**0.0393**	**19.8103**	**1.2667**	**21.0770**	**10.1431**	**1.1654**	**11.3085**	**0.0000**	**3,809.3330**	**3,809.3330**	**1.1955**	**0.0510**	**3,840.2070**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.3724	27.5561	18.6311	0.0393	8.5567	1.2667	9.8234	4.3595	1.1654	5.5248	0.0000	3,809.3330	3,809.3330	1.1955	0.0510	3,840.2070
Maximum	**3.3724**	**27.5561**	**18.6311**	**0.0393**	**8.5567**	**1.2667**	**9.8234**	**4.3595**	**1.1654**	**5.5248**	**0.0000**	**3,809.3330**	**3,809.3330**	**1.1955**	**0.0510**	**3,840.2070**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.81**	**0.00**	**53.39**	**57.02**	**0.00**	**51.14**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0187	4.0000e-005	4.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0101	0.0101	3.0000e-005		0.0107
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0302	0.0463	0.2989	5.4000e-004	0.0571	5.0000e-004	0.0576	0.0152	4.6000e-004	0.0157		55.2313	55.2313	4.0300e-003	3.2200e-003	56.2902
Total	**0.0489**	**0.0463**	**0.3035**	**5.4000e-004**	**0.0571**	**5.2000e-004**	**0.0576**	**0.0152**	**4.8000e-004**	**0.0157**		**55.2414**	**55.2414**	**4.0600e-003**	**3.2200e-003**	**56.3009**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0187	4.0000e-005	4.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0101	0.0101	3.0000e-005		0.0107
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0302	0.0463	0.2989	5.4000e-004	0.0571	5.0000e-004	0.0576	0.0152	4.6000e-004	0.0157		55.2313	55.2313	4.0300e-003	3.2200e-003	56.2902
Total	**0.0489**	**0.0463**	**0.3035**	**5.4000e-004**	**0.0571**	**5.2000e-004**	**0.0576**	**0.0152**	**4.8000e-004**	**0.0157**		**55.2414**	**55.2414**	**4.0600e-003**	**3.2200e-003**	**56.3009**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/27/2023	2/26/2023	5	0	
2	Site Preparation	Site Preparation	2/27/2023	3/10/2023	5	10	
3	Grading	Grading	3/13/2023	4/7/2023	5	20	
4	Building Construction	Building Construction	4/10/2023	5/19/2023	5	30	
5	Paving	Paving	5/22/2023	6/16/2023	5	20	
6	Architectural Coating	Architectural Coating	6/19/2023	6/30/2023	5	10	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 0.37

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 5,800; Striped Parking Area: 984 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	1	8.00	158	0.38

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	12.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	24.00	15.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	12.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0436	0.0319	0.3868	1.2100e-003	0.1533	7.0000e-004	0.1540	0.0407	6.5000e-004	0.0413		122.0249	122.0249	2.9900e-003	3.3100e-003	123.0852
Total	**0.0436**	**0.0319**	**0.3868**	**1.2100e-003**	**0.1533**	**7.0000e-004**	**0.1540**	**0.0407**	**6.5000e-004**	**0.0413**		**122.0249**	**122.0249**	**2.9900e-003**	**3.3100e-003**	**123.0852**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4034	0.0000	8.4034	4.3188	0.0000	4.3188			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**8.4034**	**1.2660**	**9.6694**	**4.3188**	**1.1647**	**5.4835**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0436	0.0319	0.3868	1.2100e-003	0.1533	7.0000e-004	0.1540	0.0407	6.5000e-004	0.0413		122.0249	122.0249	2.9900e-003	3.3100e-003	123.0852
Total	**0.0436**	**0.0319**	**0.3868**	**1.2100e-003**	**0.1533**	**7.0000e-004**	**0.1540**	**0.0407**	**6.5000e-004**	**0.0413**		**122.0249**	**122.0249**	**2.9900e-003**	**3.3100e-003**	**123.0852**

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.0826**	**0.7749**	**7.8575**	**3.4247**	**0.7129**	**4.1377**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0364	0.0266	0.3223	1.0100e-003	0.1277	5.9000e-004	0.1283	0.0339	5.4000e-004	0.0344		101.6874	101.6874	2.4900e-003	2.7600e-003	102.5710
Total	**0.0364**	**0.0266**	**0.3223**	**1.0100e-003**	**0.1277**	**5.9000e-004**	**0.1283**	**0.0339**	**5.4000e-004**	**0.0344**		**101.6874**	**101.6874**	**2.4900e-003**	**2.7600e-003**	**102.5710**

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.0278	0.0000	3.0278	1.4641	0.0000	1.4641			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**3.0278**	**0.7749**	**3.8027**	**1.4641**	**0.7129**	**2.1770**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0364	0.0266	0.3223	1.0100e-003	0.1277	5.9000e-004	0.1283	0.0339	5.4000e-004	0.0344		101.6874	101.6874	2.4900e-003	2.7600e-003	102.5710
Total	**0.0364**	**0.0266**	**0.3223**	**1.0100e-003**	**0.1277**	**5.9000e-004**	**0.1283**	**0.0339**	**5.4000e-004**	**0.0344**		**101.6874**	**101.6874**	**2.4900e-003**	**2.7600e-003**	**102.5710**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0160	0.6620	0.2191	2.7800e-003	0.0919	3.7900e-003	0.0957	0.0265	3.6200e-003	0.0301		293.6178	293.6178	8.5000e-004	0.0444	306.8798
Worker	0.0873	0.0638	0.7736	2.4100e-003	0.3066	1.4100e-003	0.3080	0.0813	1.2900e-003	0.0826		244.0499	244.0499	5.9900e-003	6.6100e-003	246.1704
Total	**0.1033**	**0.7258**	**0.9927**	**5.1900e-003**	**0.3985**	**5.2000e-003**	**0.4037**	**0.1078**	**4.9100e-003**	**0.1127**		**537.6676**	**537.6676**	**6.8400e-003**	**0.0510**	**553.0502**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0160	0.6620	0.2191	2.7800e-003	0.0919	3.7900e-003	0.0957	0.0265	3.6200e-003	0.0301		293.6178	293.6178	8.5000e-004	0.0444	306.8798
Worker	0.0873	0.0638	0.7736	2.4100e-003	0.3066	1.4100e-003	0.3080	0.0813	1.2900e-003	0.0826		244.0499	244.0499	5.9900e-003	6.6100e-003	246.1704
Total	**0.1033**	**0.7258**	**0.9927**	**5.1900e-003**	**0.3985**	**5.2000e-003**	**0.4037**	**0.1078**	**4.9100e-003**	**0.1127**		**537.6676**	**537.6676**	**6.8400e-003**	**0.0510**	**553.0502**

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0485					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0812**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0436	0.0319	0.3868	1.2100e-003	0.1533	7.0000e-004	0.1540	0.0407	6.5000e-004	0.0413		122.0249	122.0249	2.9900e-003	3.3100e-003	123.0852
Total	**0.0436**	**0.0319**	**0.3868**	**1.2100e-003**	**0.1533**	**7.0000e-004**	**0.1540**	**0.0407**	**6.5000e-004**	**0.0413**		**122.0249**	**122.0249**	**2.9900e-003**	**3.3100e-003**	**123.0852**

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0485					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0812**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0436	0.0319	0.3868	1.2100e-003	0.1533	7.0000e-004	0.1540	0.0407	6.5000e-004	0.0413		122.0249	122.0249	2.9900e-003	3.3100e-003	123.0852
Total	**0.0436**	**0.0319**	**0.3868**	**1.2100e-003**	**0.1533**	**7.0000e-004**	**0.1540**	**0.0407**	**6.5000e-004**	**0.0413**		**122.0249**	**122.0249**	**2.9900e-003**	**3.3100e-003**	**123.0852**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.1444					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**3.3360**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0364	0.0266	0.3223	1.0100e-003	0.1277	5.9000e-004	0.1283	0.0339	5.4000e-004	0.0344		101.6874	101.6874	2.4900e-003	2.7600e-003	102.5710
Total	**0.0364**	**0.0266**	**0.3223**	**1.0100e-003**	**0.1277**	**5.9000e-004**	**0.1283**	**0.0339**	**5.4000e-004**	**0.0344**		**101.6874**	**101.6874**	**2.4900e-003**	**2.7600e-003**	**102.5710**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.1444					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**3.3360**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0364	0.0266	0.3223	1.0100e-003	0.1277	5.9000e-004	0.1283	0.0339	5.4000e-004	0.0344		101.6874	101.6874	2.4900e-003	2.7600e-003	102.5710
Total	**0.0364**	**0.0266**	**0.3223**	**1.0100e-003**	**0.1277**	**5.9000e-004**	**0.1283**	**0.0339**	**5.4000e-004**	**0.0344**		**101.6874**	**101.6874**	**2.4900e-003**	**2.7600e-003**	**102.5710**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0302	0.0463	0.2989	5.4000e-004	0.0571	5.0000e-004	0.0576	0.0152	4.6000e-004	0.0157		55.2313	55.2313	4.0300e-003	3.2200e-003	56.2902
Unmitigated	0.0302	0.0463	0.2989	5.4000e-004	0.0571	5.0000e-004	0.0576	0.0152	4.6000e-004	0.0157		55.2313	55.2313	4.0300e-003	3.2200e-003	56.2902

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.90	9.80	10.95	14,181	14,181
Parking Lot	0.00	0.00	0.00		
Total	3.90	9.80	10.95	14,181	14,181

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	14.70	6.60	6.60	33.00	48.00	19.00	66	28	6
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450
Parking Lot	0.466187	0.061512	0.210180	0.153350	0.034639	0.008391	0.014417	0.011935	0.000556	0.000412	0.031993	0.000977	0.005450

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

Bowman Charter School - Placer-Mountain Counties County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0187	4.0000e-005	4.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0101	0.0101	3.0000e-005		0.0107
Unmitigated	0.0187	4.0000e-005	4.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0101	0.0101	3.0000e-005		0.0107

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0101	0.0101	3.0000e-005		0.0107
Total	**0.0187**	**4.0000e-005**	**4.6900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0101**	**0.0101**	**3.0000e-005**		**0.0107**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0170					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0101	0.0101	3.0000e-005		0.0107
Total	**0.0187**	**4.0000e-005**	**4.6900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0101**	**0.0101**	**3.0000e-005**		**0.0107**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

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P:\21154-BOWMAN\ B21154TO BY(XREFS)

TOPOGRAPHY NOTES:

1. TOPOGRAPHY PREPARED BY GIULIANI AND KULL-AUBURN, INC., FIELD SURVEY CONDUCTED SEPTEMBER 18, 2021.
2. PROPERTY LINES SHOWN ON THESE DRAWINGS ARE COMPILED FROM RECORD DATA. PURSUANT TO THE CLIENTS DIRECTION, A BOUNDARY SURVEY WAS NOT PERFORMED AT THIS TIME WHICH MAY HAVE DETERMINED THE ACTUAL PROPERTY LINES. THE PROPERTY LINES SHOWN HEREON ARE THE BEST GRAPHICAL FIT BETWEEN RECORD INFORMATION AND THE TOPOGRAPHICAL FEATURES SURVEYED AND ARE FOR REFERENCE ONLY, AND SHOULD NOT BE RELIED UPON OR USED FOR ANY OTHER PURPOSES.
3. SURVEY DATUM: HORIZONTAL DATUM IS CALIFORNIA STATE PLANE COORDINATES. VERTICAL DATUM IS NAVD 88.
4. THE EXISTENCE, LOCATION AND ELEVATION OF ALL EXISTING UNDER AND ABOVE GROUND UTILITIES ARE SHOWN IN A GENERAL WAY AND MAY NOT BE A COMPLETE INVENTORY OF ALL EXISTING UTILITIES EFFECTED THIS SITE.
5. ALL TREE DRIPLINES SHOWN ARE APPROXIMATE.

PROPERTY INFORMATION

OWNER/APPLICANT:
KRISTIN WELLS
SUPERINTENDENT/PRINCIPAL
BOWMAN CHARTER SCHOOL
13777 BOWMAN ROAD
AUBURN, CA 95603
(530) 885-1974

LAND SURVEYOR:
PATRICK R. DRUDING, PLS
GIULIANI & KULL-AUBURN, INC.
PO BOX 786
AUBURN, CA 95604
(530) 885-5107

SITE ADDRESS:
13777 BOWMAN ROAD
AUBURN, CA 95603

ASSESSOR'S PARCEL #:
053-090-023 AND 024

GRAPHIC SCALE
30 0 15 30 60
1 INCH = 30 FEET

S74°11'38"W 504.45'
UNK ROAD
24' WIDE ROAD AND UTILITY EASEMENT
24'
S54°44'52"E 423.41'
℄ 10' WIDE PG&E EASEMENT PER 1709/309
UNK ROAD
24' WIDE ROAD AND UTILITY EASEMENT
BOWMAN ROAD
N35°44'38"E 50.30'
R=505.00'
D=10°17'28"
L=90.70'
S00°10'22"E 357.30'
S80°06'58"W 765.49'
FOUND 1" IRON PIPE
FOUND 1" IRON PIPE
SCHOOL BUILDING

LEGEND

LINE/SYMBOL	DESCRIPTION/ABBREVIATION	LINE/SYMBOL	DESCRIPTION/ABBREVIATION
	PROPERTY LINE		GRAVEL
	ADJACENT PROPERTY LINE		CONCRETE PAVEMENT (CONC)
	EASEMENT (AS NOTED)	SDMH	STORM DRAIN MANHOLE
	CENTERLINE (CL)	SSMH	SANITARY MANHOLE
1000	MAJOR ELEVATION CONTOUR	LIGHT	LIGHT POLE
998	MINOR ELEVATION CONTOUR	WV	WATER VALVE
	FOUND MONUMENT (AS NOTED)	WM	WATER METER
	EDGE OF PAVEMENT	FH	FIRE HYDRANT
	EDGE OF CONCRETE PAVEMENT	MAIL BOX	MAIL BOX
	ASPHALT CURB	ELEC	UTILITY - ELECTRIC VAULT
OH	OVERHEAD UTILITY WIRE	BFP	BACKFLOW PREVENTER
X X	FENCE LINE	ICV	IRRIGATION CONTROL VALVE(S)
	BUILDING FACE/LINE		TREE
	RETAINING WALL	tree-09977	TREE NUMBER PER TREE SURVEY

DATE	REVISIONS	SCALE 1"=30'	DRAWN BY TG	DESIGNED BY PD	CHECKED BY PD

Giuliani & Kull Auburn, Inc.
Engineers • Planners • Surveyors
Post Box 786, Auburn, CA 95604
(530) 885-5107 Fax (530) 885-5157
Auburn • San Jose • Oakdale • Sacramento

BOWMAN CHARTER SCHOOL
13777 BOWMAN ROAD
AUBURN PLACER COUNTY CALIFORNIA

BASE TOPOGRAPHY

LICENSED LAND SURVEYOR PATRICK R. DRUDING NO. LS 8933 STATE OF CALIFORNIA

SHEET 1

OF 1 SHEETS

DATE SEPTEMBER 21, 2021

JOB NO. 21154

EARTHWORK SUMMARY:

	CUT	FILL	NET
EARTHWORK*	±10,600 YDS	±18,600 YDS	±8,000 YDS (FILL)

* EARTHWORK NUMBERS ARE PRELIMINARY ONLY AND SUBJECT TO CHANGE, AND IT DOES NOT INCLUDE UTILITY TRENCHING, FOUNDATIONS EXCAVATIONS OR STRIPPING. SWELLING, SHRINKAGE OR LOSS FACTORS ARE NOT INCLUDED.

JK ARCHITECTURE ENGINEERING

AUBURN | TAHOE CITY | RENO | SAN JOSE

www.jkaedesign.com

NOTES:

1. TOTAL PARKING - 41 SPACES (INCLUDING 2 ACCESSIBLE)
2. A BIOLOGICAL STUDY IS RECOMMENDED TO VERIFY IF WETLANDS ASSOCIATED WITH THE EXISTING DITCH ALONG THE SOUTH BOUNDARY ARE PRESENT ON SITE, AND DETERMINE POTENTIAL IMPACTS OF THE PROPOSED IMPROVEMENTS TO IT.

LEGEND: PROPOSED

- PROPERTY LINE / RIGHT OF WAY (ROW)
- ROAD CENTER LINE
- BUILDING FOOTPRINT
- ASPHALT CONCRETE
- CONCRETE
- DG PATH
- GRASS FIELD
- PARKING SPACE COUNT
- EX. STORMDRAIN PIPE
- NEW WATER SERVICE LINE
- NEW SEWER SERVICE LINE
- NEW ELECTRICAL SERVICE LINE
- STORMDRAIN PIPE W/ FLARED END SECTION & ROCK ENERGY DISSPATER

ADDITIONAL COMMENTS:
- All trees within area of disturbed site to be removed.
- Plan for an allowance of new trees to be replaced.
- Include a standard 20' height chain link fence & associated structure recreation backstop

N

SCALE: 1" = 30'

0' 15' 30' 60'

Seal

Project
BOWMAN RECREATIONAL FIELDS

BOWMAN CHARTER SCHOOL
AUBURN, CA

Drawing Title
CONCEPTUAL LAYOUT
CIVIL SITE PLAN

NO.	DATE	ISSUE

Drawn By: CMS

Checked By: DL

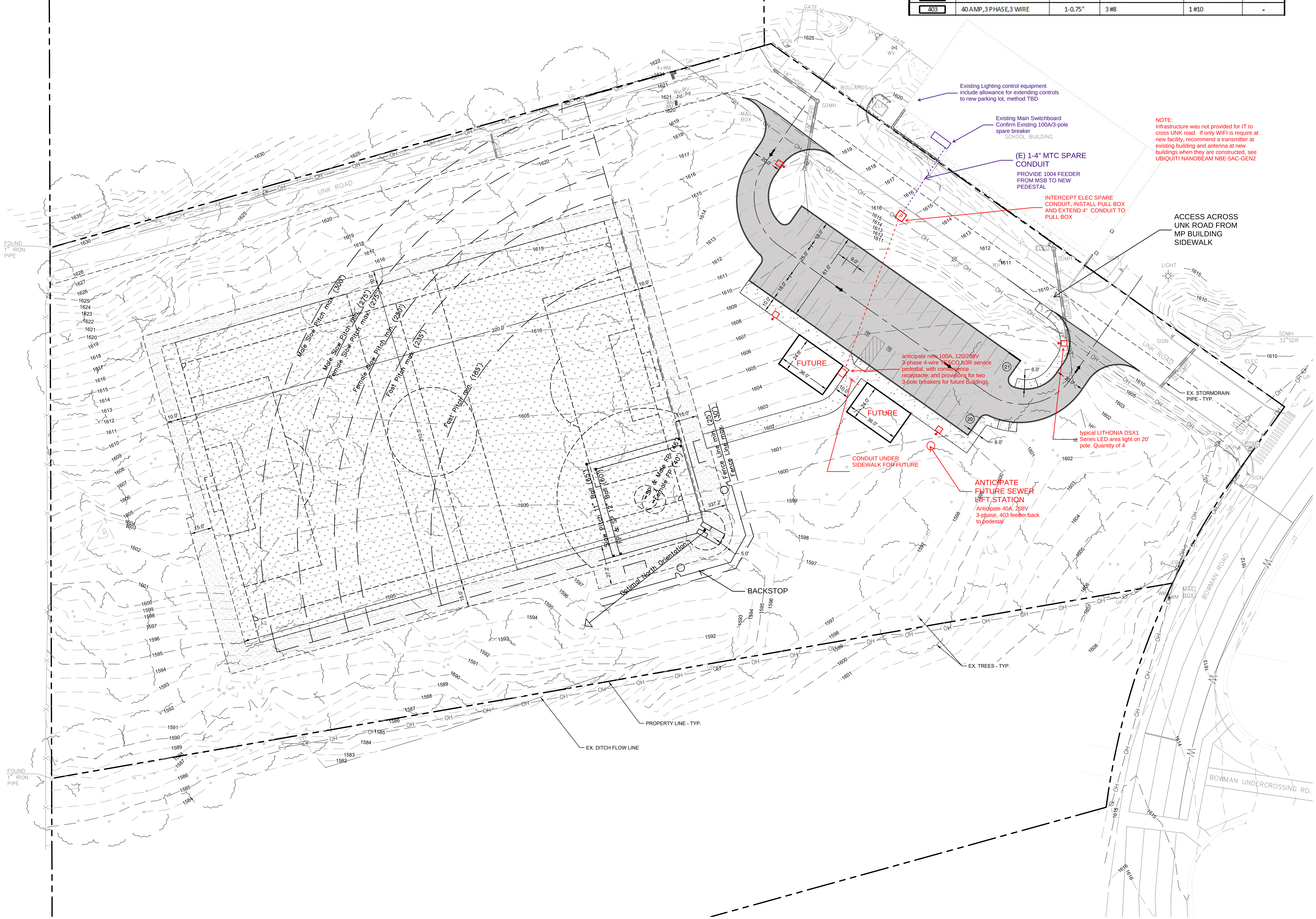
Project No.: 21-275

NOV. 2021

Drawing No.: **1**

COPPER FEEDER SCHEDULE

FEEDER TAG	FEEDER DESCRIPTION	CONDUIT	CONDUCTORS PHASE/NEUTRAL	CONDUCTORS GROUND	REMARKS
1004	100 AMP, 3 PHASE, 4 WIRE	1-1.25"	4 #2	1 #8	-
403	40 AMP, 3 PHASE, 3 WIRE	1-0.75"	3 #8	1 #10	-


Existing Lighting control equipment include allowance for extending controls to new parking lot, method TBD
Existing Main Switchboard Confirm Existing 100A/3-pole spare breaker
SCHOOL BUILDING
(E) 1-4" MTC SPARE CONDUIT
PROVIDE 1004 FEEDER FROM MSB TO NEW PEDESTAL
NOTE: Infrastructure was not provided for IT to cross UNK road. If only WIFI is require at new facility, recommend a transmitter at existing building and antenna at new buildings when they are constructed, see UBIQUITI NANOBEAM NBE-5AC-GEN2
INTERCEPT ELEC SPARE CONDUIT, INSTALL PULL BOX AND EXTEND 4" CONDUIT TO PULL BOX
ACCESS ACROSS UNK ROAD FROM MP BUILDING SIDEWALK
UNK ROAD
FUTURE
FUTURE
anticipate new 100A, 120/208V 3-phase 4-wire TESCO N3R service pedestal, with convenience receptacle, and provisions for two 3-pole breakers for future buildings.
typical LITHONIA DSX1 Series LED area light on 20' pole. Quantity of 4
CONDUIT UNDER SIDEWALK FOR FUTURE
ANTICIPATE FUTURE SEWER LIFT STATION
Anticipate 40A, 208V 3-phase, 403 feeder back to pedestal
EX. STORMDRAIN PIPE - TYP.
BACKSTOP
EX. TREES - TYP.
PROPERTY LINE - TYP.
EX. DITCH FLOW LINE
BOWMAN UNDERCROSSING RD.
BOWMAN ROAD
FOUND 1" IRON PIPE

JK ARCHITECTURE ENGINEERING

AUBURN | TAHOE CITY | RENO | SAN JOSE

www.jkaedesign.com

NOTES:

1. TOTAL PARKING - 41 SPACES (INCLUDING 2 ACCESSIBLE)
2. A BIOLOGICAL STUDY IS RECOMMENDED TO VERIFY IF WETLANDS ASSOCIATED WITH THE EXISTING DITCH ALONG THE SOUTH BOUNDARY ARE PRESENT ON SITE, AND DETERMINE POTENTIAL IMPACTS OF THE PROPOSED IMPROVEMENTS TO IT.

LEGEND: PROPOSED

- PROPERTY LINE / RIGHT OF WAY (ROW)
- ROAD CENTER LINE
- BUILDING FOOTPRINT
- ASPHALT CONCRETE
- CONCRETE
- DG PATH
- GRASS FIELD
- PARKING SPACE COUNT
- EX. STORMDRAIN PIPE

N

SCALE: 1" = 30'

0' 15' 30' 60'

Seal

Project
BOWMAN RECREATIONAL FIELDS

BOWMAN CHARTER SCHOOL
AUBURN, CA

Drawing Title
CONCEPTUAL LAYOUT
ELECTRICAL SITE PLAN

NO.	DATE	ISSUE

Drawn By: CMS

Checked By: DL

Project No. 21-275

OCT. 2021

Drawing No.

E1.01

APPENDIX C

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Native American Heritage Commission
Native American Contacts List
5/28/2019

Colfax-Todds Valley Consolidated Tribe
Pamela Cubbler, Treasurer
P.O. Box 4884 Miwok
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(530) 320-3943

Colfax-Todds Valley Consolidated Tribe
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(916) 577-3558

Shingle Springs Band of Miwok Indians
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rcuellar@ssband.org
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(530) 387-8067 Fax

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Grayson Coney, Cultural Director
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Tsi Akim Maidu
Don Ryberg, Chairperson
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Browns Valley ,CA 95918
tsi-akim-maidu@att.net
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United Auburn Indian Community of the Auburn Rancheria
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bguth@auburnrancheria.com
(530) 883-2390 Office
(530) 883-2380 Fax

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Darrel.Cruz@washoetribe.us
(775) 265-8600 x10714
(775) 546-3421 Cell

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed: Bowmans School Field Project, (Dudek #11799), Placer County.

July 18, 2022

Clyde Prout, Chairperson
Colfax-Todds Valley Consolidated Tribe
P.O. Box 4884
Auburn, CA, 95604
Phone: (530) 577-3558
miwokmaidu@yahoo.com

Subject: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC)

Dear Chairperson Prout:

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The Lead Agency point of contact for this project is Superintendent Kristin Wells, (530) 885-1974.

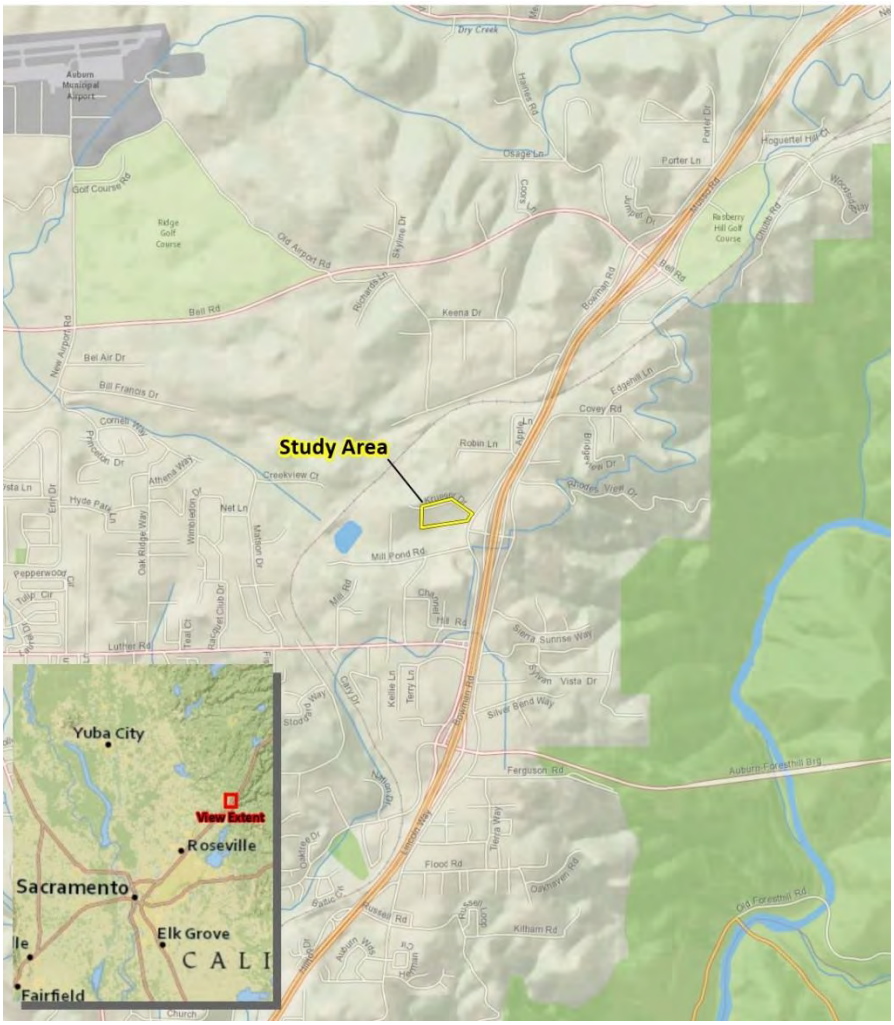
Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request consultation, in writing, with the Ackerman Charter School District.

Your project comments and concerns are important to us. We look forward to hearing from you in the near future.

Very Respectfully,

C. John Dominguez
School Site Solutions, Inc.
2015 H Street
Sacramento, CA 95811
916 930-0736 tel
916 784-0470 fax

Attachments:
Figure 1: Project Location and Vicinity
Figure 2: Project Area



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July 18, 2022

Darrel Cruz, Cultural Resources Department THPO
Washoe Tribe of Nevada and California
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Gardnerville, NV, 89410
Phone: (775) 265-8600
Darrel.Cruz@washoetribe.us

Subject: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC)

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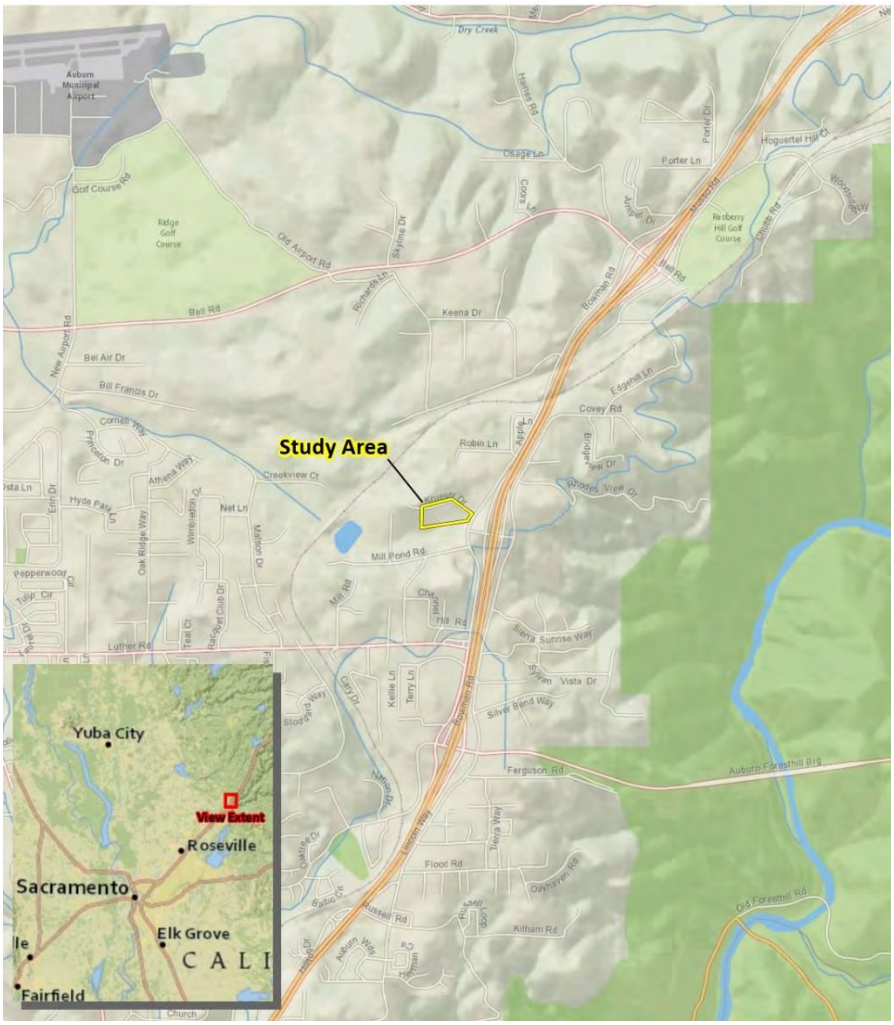

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July 18, 2022

Don Ryberg, Chairperson
Tsi Akim Maidu
P.O. Box 510
Browns Valley, CA 95918
Phone: (530) 383-7234
Tsi-akim-maidu@att.net

Subject: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC)

Dear Chairperson Ryberg:

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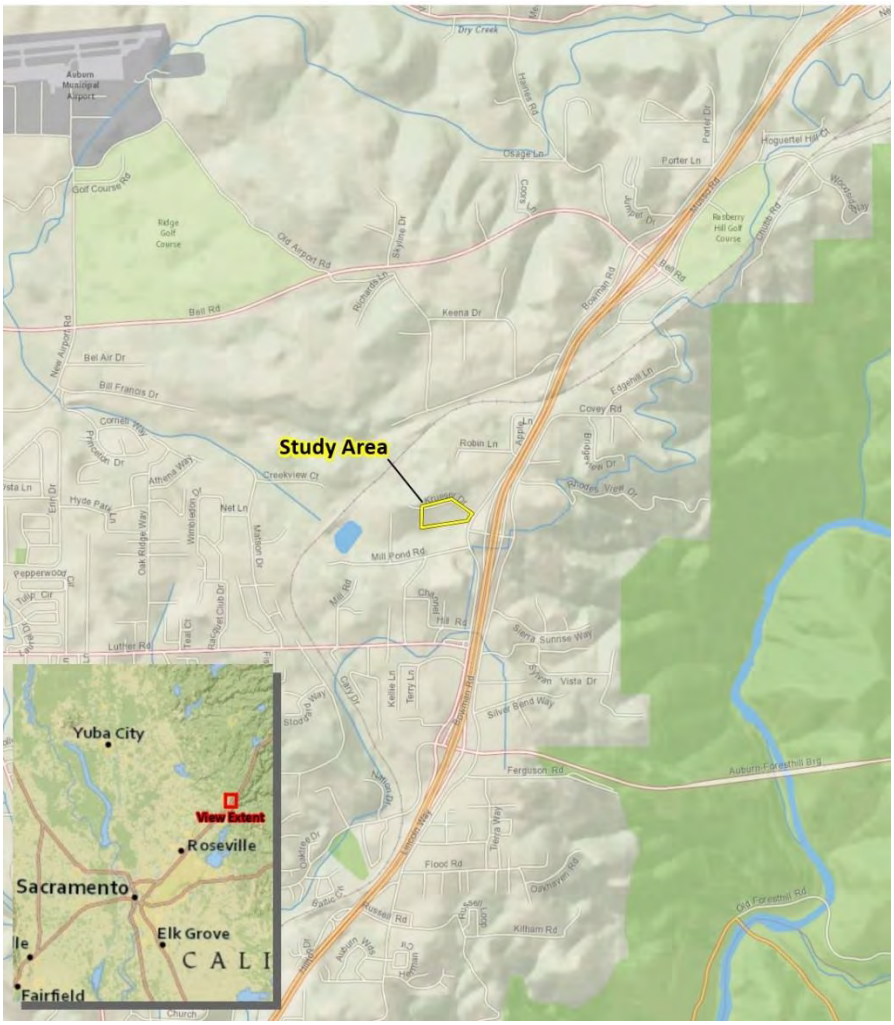

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July 18, 2022

Gene Whitehouse, Chairperson
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA, 95603
Phone: (530) 883-2390
Fax: (530) 883-2380
bguth@auburnrancheria.com

Subject: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC)

Dear Chairperson Whitehouse:

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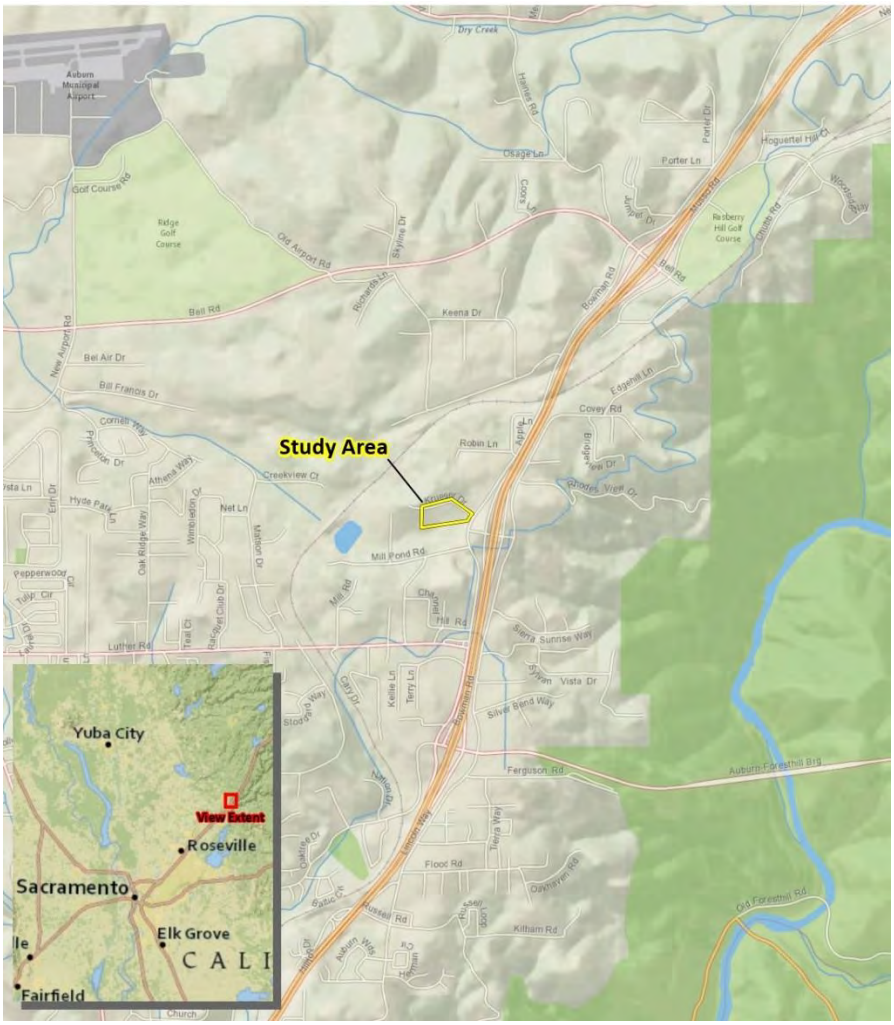

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July 18, 2022

Grayson Coney, Cultural Director
Tsi Akim Maidu
P.O. Box 510
Browns Valley, CA, 95918
Phone: (530) 383-7234
Tsi-akim-maidu@att.net

Subject: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC)

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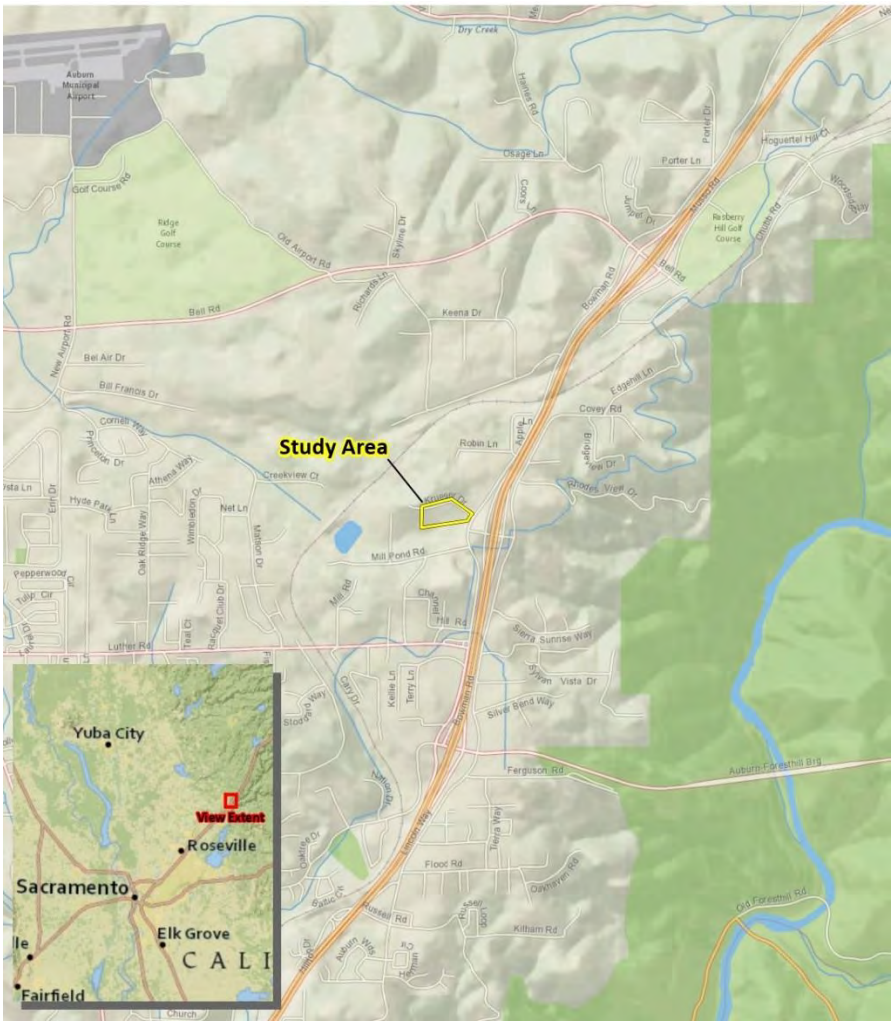

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July 18, 2022

Pamela Cubbler, Treasurer
Colfax-Todds Valley Consolidated Tribe
P.O. Box 4884
Auburn, CA, 95604
Phone: (530) 320-3943
pcubbler@colfaxrancheria.com

Subject: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC)

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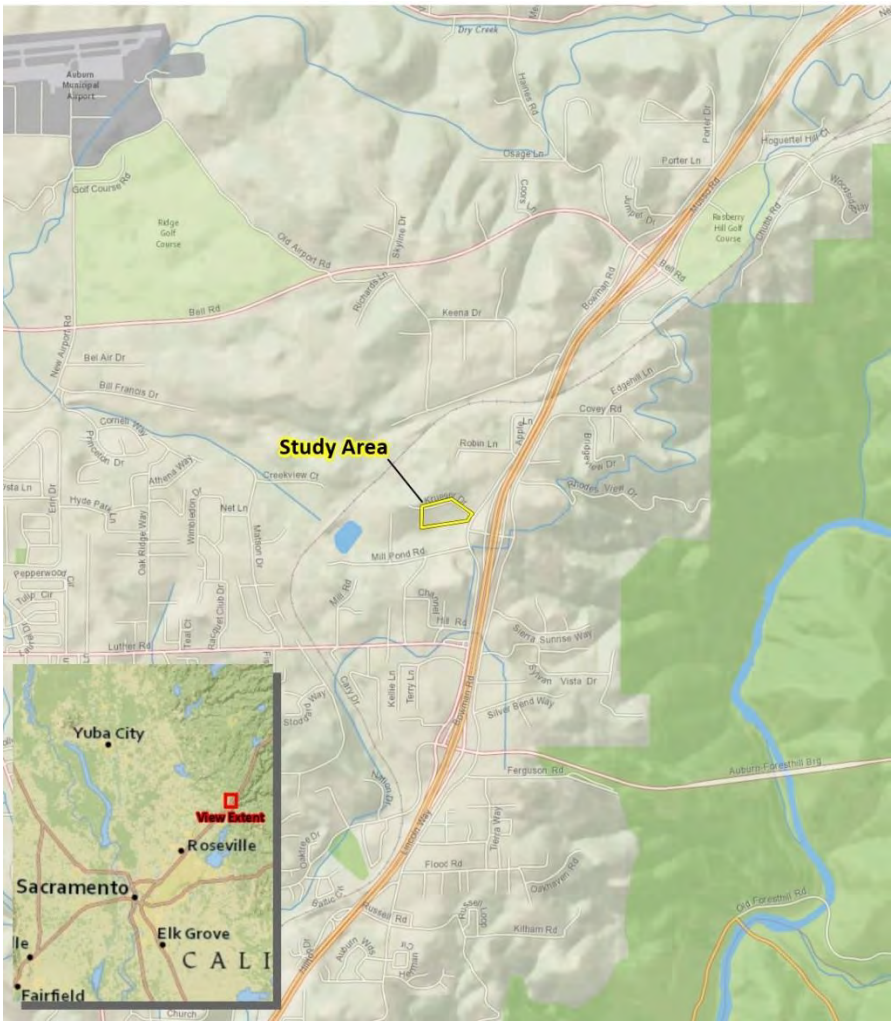

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July 18, 2022

Regina Cuellar, Chairperson
Shingle Springs Band of Miwok Indians
P.O. Box 1340
Shingle Springs, CA, 95682
Phone: (530) 387-4970
Fax: (530) 387-8067
rcuellar@ssband.org

Subject: Tribal Cultural Resources under the California Environmental Quality Act, AB 52 (Gatto, 2014). Formal Notification of determination that a Project Application is Complete or Decision to Undertake a Project, and Notification of Consultation Opportunity, pursuant to Public Resources Code § 21080.3.1 (hereafter PRC)

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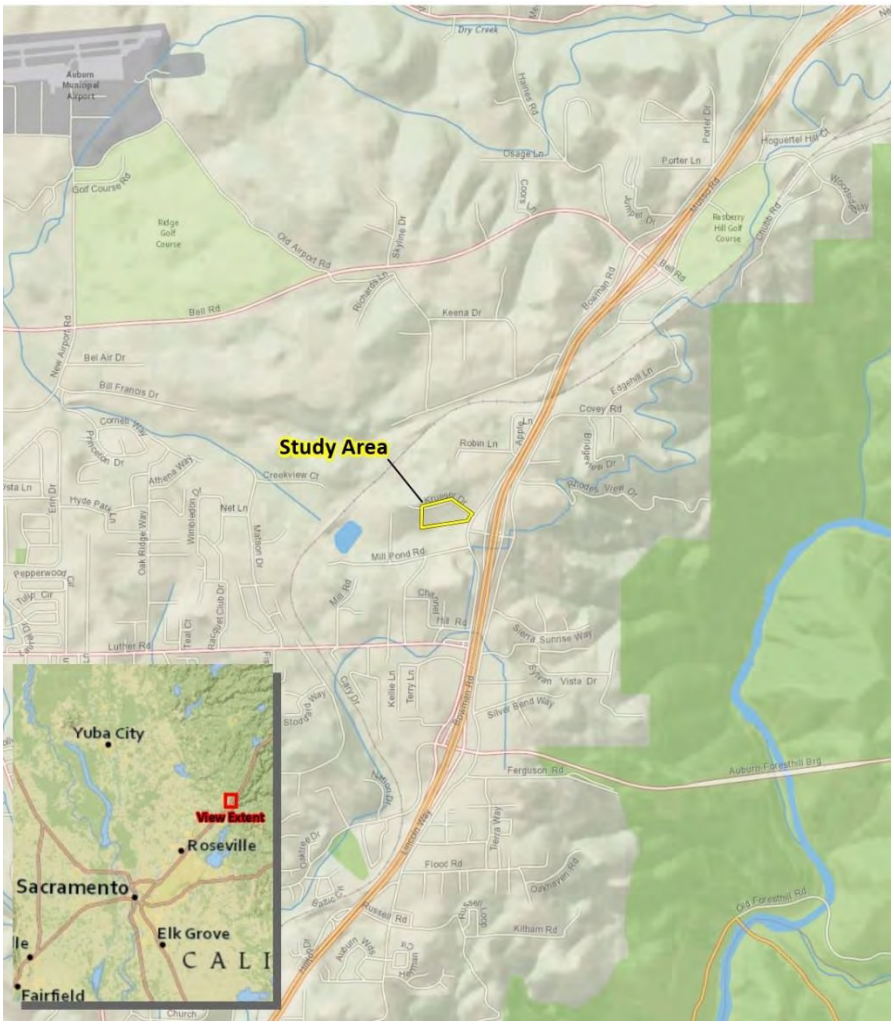

Figure 1: Project Location and Vicinity

Figure 2: Project Area

APPENDIX D

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DELINEATION OF POTENTIAL JURISDICTIONAL WATERS OF THE U.S. AND WATERS OF THE STATE OF CALIFORNIA

BOWMAN CHARTER SCHOOL
AUBURN, PLACER COUNTY, CALIFORNIA

Prepared for:
Ackerman Charter School District
Bowman Charter School
13777 Bowman Road
Auburn, CA 95603

Contact: Kelly Graham,
Superintendent/Principal

Prepared by:
WRA, Inc.
2169-G East Francisco Blvd
San Rafael, California 94901

Contact: Amy Parravano
Email: aparravano@wra-ca.com

WRA Project: 31343

Date: December 2021

ENVIRONMENTAL CONSULTANTS

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LIST OF PREPARERS

Leslie Lazarotti – Principal-in-Charge
Amy Parravano – Senior Wetland Biologist
Chris Zumwalt – GIS Analyst

LIST OF ACRONYMS

CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
CSRL	California Soil Resource Lab
CWA	Clean Water Act
DEM	Digital Elevation Model
DWR	Department of Water Resources
EPA	Federal Environmental Protection Agency
FAC	Facultative Plant
FACU	Facultative Upland Plant
FACW	Facultative Wetland Plant
HUC	Hydrologic Unit Code
NAVD88	North American Vertical Datum of 1988
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
NWPL	National Wetland Plant List
OBL	Obligate Wetland Plant
OHWM	Ordinary High Water Mark
RHA	Rivers and Harbors Act
RWQCB	Regional Water Quality Control Board
SWRCB	California State Water Resources Control Board
UPL	Upland Plant
USGS	U.S. Geological Survey
WRA	WRA, Inc.

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1.0 INTRODUCTION

This report presents the results of a delineation of potential waters of the U.S. as defined by the Clean Water Act (CWA) and waters of the State as defined by the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Wetland Policy, SWRCB 2019). The Study Area for this delineation includes property owned by the Bowman Charter School (Applicant) in the Ackerman Charter School District (Study Area; Appendix A – Figure 1). The approximately 6-acre Study Area is located west of Interstate 80 (I-80) at 13777 Bowman Road in Auburn, Placer County, California.

On November 15, 2021, a certified wetland delineator from WRA, Inc. (WRA) conducted a delineation within the Study Area to identify wetlands and non-wetland waters potentially subject to jurisdiction by the U.S. Army Corps of Engineers (Corps) under Section 404 of the CWA. In addition, this report identifies wetlands and other features potentially subject to jurisdiction of the California State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) as defined in the State Wetland Policy (SWRCB 2019). The following sections describe the regulatory background and methods used to guide the delineation and provide a summary of wetlands and non-wetland waters within the Study Area. This delineation is considered "potential" subject to the approval of the Corps and, where appropriate, RWQCB[1].

This report depicts wetland and non-wetland waters features which are jurisdictional under the CWA and State Wetland Policy. Differences between these jurisdictions are represented where appropriate on tables and maps associated with this report. Some features may be included that qualify for exemptions under either or both jurisdictional scopes. For all potentially exempt features, regardless of whether or not they are identified as such in this report, the applicant(s) reserve the right to request that the Corps, RWQCB, and/or SWRCB make a determination that such features are not waters of the U.S. or waters of the State subject to State Wetland Policy regulation.

[1] *Per the State Wetland Policy, the SWRCB or local RWQCB is required to verify any wetlands present that are not included on delineation maps verified by the Corps (Lines 77-81 of the State Wetland Policy).*

2.0 REGULATORY BACKGROUND

2.1 Section 404 of the Clean Water Act

The objective of the CWA is to maintain and restore the chemical, physical, and biological integrity of the Waters of the United States (33 CFR Part 328 Section 328.4). "Waters of the U.S." is the encompassing term for areas that qualify for federal regulation under Section 404 of the CWA. Section 404 of the CWA gives the U.S. Environmental Protection Agency (EPA) and the Corps regulatory and permitting authority regarding discharge of dredged or fill material into "navigable waters of the United States." Section 502(7) of the CWA defines navigable waters as "waters of the United States, including territorial seas." Section 328 of Chapter 33 in the Code of Federal Regulations (CFR) defines the term "waters of the United States" as it applies to the jurisdictional limits of the authority of the Corps under the CWA. A summary of this definition of "waters of the U.S." in 33 CFG 328.3 includes (1) waters used for commerce and subject to tides; (2) interstate waters and wetlands; (3) "other waters" such as intrastate lakes, rivers, streams, and wetlands; (4) impoundments of waters; (5) tributaries of waters; (6) territorial seas; and (7) wetlands adjacent to waters. Therefore, for purposes of determining Corps jurisdiction under the CWA, "navigable waters" as defined in the CWA are the same as "waters of the U.S." defined in the Code of Federal Regulations above. Waters of the U.S include non-isolated "wetlands" and "other waters of the U.S."

2.1.1 Wetlands

Wetlands are defined in 33 CFR 328.3 (b) as:

> *…those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

The basis for determining whether a given area is a wetland for the purposes of Section 404 of the CWA is outlined in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Delineation Manual* for the respective region (Arid West or Western Mountains and Valleys for California). As defined in 33 CFR 328.4 (c), the extent of federal jurisdiction within wetlands is defined as extending to the limit of the wetland as determined using the methods outlined in the manuals.

2.1.2 Non-Wetland Waters

The limit of federal jurisdiction in non-tidal non-wetland waters extends to the ordinary high water mark (OHWM) which is defined in 33 CFR 328.3 (e) as:

> *...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impresses on the bank, shelving, changes in the characteristics of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

2.1.3 Rapanos v. United States and Carabell v. United States

On June 5, 2007, the Corps and the EPA issued joint guidance on implementing the June 19, 2006, U.S. Supreme Court opinions resulting from Rapanos v. United States and Carabell v. United States (Rapanos) cases. The agencies received 66,047 public comments on the Rapanos Guidance (65,765 form letters, 282 non-form letters), from States, environmental and conservation organizations, regulated entities, industry associations, and the general public. The EPA and the Corps jointly reviewed the comments and released a revised version of the guidance on December 2, 2008. The revised guidance states that the agencies will assert jurisdiction over:

- Non-navigable tributaries that are not relatively permanent, where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months);
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and
- Wetlands adjacent to but that do not directly abut a relatively permanent non navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) and
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

2.1.4 Solid Waste Agency of Northern Cook County (SWANCC) v. United States

In addition to areas that may be exempt from Section 404 jurisdiction, some isolated wetlands and waters may also be considered outside of Corps jurisdiction as a result of the Supreme Court's decision in Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers (531 U.S. 159 [2001]). Isolated wetlands and waters are those areas that do not have a surface or groundwater connection to, and are not adjacent to a navigable "Waters of the U.S.," and do not otherwise exhibit an interstate commerce connection.

2.2 Waters of the State

The Porter-Cologne Water Quality Control Act gives the State Water Resources Control Board authority to regulate discharge of dredged or fill material that may affect the quality of "waters of the state". "Waters of the State" are defined broadly as:

> *any surface water or groundwater, including saline waters, within the boundaries of the state.*

In April 2019, the SWRCB adopted the State Wetland Policy, which provides a State wetland definition, procedures and requirements for regulation of the discharge of dredge or fill material to wetlands and non-wetland waters of the State. The State Wetland Policy also includes exemptions from regulation of dredge and fill discharges for certain types of wetland and waters features, as well as for certain classes of activities, such as activities covered by an existing RWQCB or SWRCB Order. The state wetland definition that became effective May 28, 2020, is similar to, but slightly different from that used by the Corps:

> *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.*

The State Wetland Definition and Procedures utilize existing Corps delineation procedures (Environmental Laboratory 1987, Corps 2008a, 2010). According to the State Wetland Policy, the SWRCB and RWQCBs generally rely on the Corps for verification of wetland and waters as part of an aquatic resource report. Any potential wetland area not identified in a report verified by the Corps is required to be delineated using Corps methods for consideration as a state wetland and verification by SWRCB or RWQCB staff. This report includes wetlands and non-wetland waters meeting both the Corps and State wetland definitions. Some features mapped as non-wetland waters under the Corps wetland definition may be considered wetlands under the State definition.

This report identifies wetlands and non-wetland waters according to the Corps definitions and criteria, consistent with the State Wetland Policy's reliance of these criteria. This report also recognizes that some non-wetland waters features may meet the wetland definition of the State Wetland Policy. Regardless of how they are defined, wetlands and non-wetland waters deemed jurisdictional may be regulated by the RWQCB and/or SWRCB under the State Wetland Policy.

3.0 METHODS

WRA biologists performed a delineation of aquatic resources within the Study Area on November 15, 2021. Prior to conducting the evaluation, WRA reviewed a range of background materials including the *Soil Survey of Western* Placer *County* (USDA 1980), SoilWeb (CSRL 2021), the National Wetlands Inventory (NWI; USFWS 2021), and the U.S. Geological Survey (USGS) Auburn 7.5-minute quadrangle map (USGS 2021). WRA also reviewed historic aerial imagery from Google Earth (Google Earth 2021). In addition, a topographical survey was reviewed to plan the site visit and as references during the site visit.

During the on-site evaluation, WRA followed the methods outlined in *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Corps Manual; Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Supplement; Corps 2008) and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Guide; Lichvar and McColley 2008). Potentially jurisdictional wetlands were identified and their boundaries mapped using the Routine Method described in the Corps Manual. The jurisdictional limits of non-wetland waters under Section 404 of the CWA were mapped based on a combination of field indicators described in the OHWM Guide.

3.1 Wetlands

3.1.1 Routine Method

WRA followed the Routine Method to evaluate the Study Area for the presence or absence of indicators of the three wetland parameters described in the Corps Manual (Environmental Laboratory 1987) and [Arid West Supplement (Corps 2008). Data on vegetation, hydrology, and soils were collected at sample points within potential wetland communities and adjacent upland areas. Sample points that contained positive indicators for hydrophytic vegetation, hydric soils, and wetland hydrology were considered to be wetland. Except in cases of atypical or problematic wetland situations (i.e., difficult wetland situations, as described below), sample points that lacked one or more indicators were considered to be upland. Sample point data were reported on Arid West Supplement data forms. Sample point locations were recorded using a handheld GPS unit with mapping grade accuracy. Plant species observed in the Study Area were identified using the Jepson eFlora (Jepson Flora Project 2021). Plants were assigned a wetland indicator status according to the National Wetland Plant List (NWPL; Corps 2018).

Wetland indicator statuses listed in the NWPL are based on the expected frequency of occurrence in wetlands, as follows in Table 1:

TABLE 1. EXPLANATION OF THE WETLAND INDICATOR STATUES IN THE NATIONAL WETLAND PLANT LIST

CLASSIFICATION (ABBREVIATION)	DEFINITION*	HYDROPHYTIC SPECIES? (Y/N)
Obligate (OBL)	Almost always is a hydrophyte, rarely in uplands	Y
Facultative Wetland (FACW)	Usually is a hydrophyte but occasionally found in uplands	Y
Facultative (FAC)	Commonly occurs as either a hydrophyte or non-hydrophyte	Y
Facultative Upland (FACU)	Occasionally is a hydrophyte but usually occurs in uplands	N
Upland/Not Listed (UPL/NL)	Rarely is a hydrophyte, almost always in uplands	N

*See Corps (2018)

Wetland boundaries were identified using a combination of indicators observed on the ground, most often corresponding to changes in topography and dominant vegetation, in addition to other indicators. Where wetland boundaries were difficult to determine, wetland signatures visible in recent and historical aerial imagery from Google Earth (2021) were used to determine wetland boundaries. Using imagery from normal periods allowed WRA to identify the normal extent of wetland conditions across the site. Using imagery from drier than normal periods allowed WRA to more easily visualize trends in vegetation and soil conditions due to the stronger juxtaposition of wet and dry areas.

3.1.2 Difficult Wetland Situations/Disturbed Areas

The Arid West Supplement (Corps 2008) includes recommended procedures for completing wetland delineations in areas of "difficult wetland situations" in which wetlands may lack one or more indicators or indicators may be disturbed due to natural or anthropogenic factors; these are discussed as atypical or problematic wetland conditions in the Corps Manual (Environmental Laboratory 1987). Although the Corps Manual and Arid West Supplement (Corps 2008) were utilized in the wetland determination, they do not provide exhaustive lists of the difficult situations and problem areas that can arise during delineations in the Arid West. In these situations, the Corps Manual and Regional Supplement stress the importance of using best professional judgment and knowledge of the ecology of the wetlands in the region during the collection and interpretation of data in difficult sites.

Past vegetation clearing, grading, and soil stockpiling occurred in the Study Area during construction of the Bowman Charter School and its associated roads and other facilities. At sample points where one or more wetland parameters was disturbed, supplemental investigations were conducted to make a wetland determination. Several sample points were collected in microtopographic high and low areas to if they were subject to prolonged periods of inundation or soil saturation during the growing season that would indicate presence of wetland hydrology. The current year's rainfall was considered in interpreting field results, as well as the likelihood that wet conditions would occur on the site at least every other year. Past vegetation conditions were determined through a review of historic aerial photographs and a field assessment of directly adjacent vegetation communities to determine the former plant community composition prior to site disturbance.

Soils were examined in previously disturbed and adjacent undisturbed reference areas with a similar topographic setting and hydrologic conditions. A sufficient number of exploratory sample pits were dug to understand the soil-hydrologic relationships within the context of landscape setting, vegetation, and hydrology indicators. Soil profiles were investigated from several locations throughout the disturbed grassland area and compared with surrounding undisturbed/intact vegetation. Soil color and other morphological features were examined to determine potential presence of redoximorphic features that may have formed following site disturbance. Particular attention was paid to changes in microtopography over short distances to detect repetitive sequences of potential hydric/non-hydric soils to aid in the determination of wetland-upland boundaries.

3.1.3 Hydrologic Analysis

A hydrologic analysis using the Antecedent Precipitation Tool (Deters 2021) was conducted to determine whether precipitation levels during the 3 months prior to the site visits were above, below, or within the 30-year average for the region as well as to determine if the region was experiencing long-term drought

conditions. Long-term precipitation data were obtained from the Auburn weather station located approximately 2.3 miles south of the Study Area. Drought condition data were obtained from monthly Palmer Drought Severity Index dataset published by the National Ocean and Atmospheric Administration.

During the 3-month period prior to the site visit, precipitation was wetter normal, following a series of significant precipitation events. However, at the time of the site visit, the region was experiencing moderate drought according to the Drought Index (PDSI) from the Antecedent Precipitation Tool output. Evaluating precipitation for the 3-month antecedent period provides information for near-term conditions, but drought condition evaluations help to provide longer term context. The full results of the Antecedent Precipitation Tool analysis are provided as Appendix D.

3.2 Non-Wetland Waters

This study also evaluated the presence of non-wetland waters using Corps manuals and guidance for the identification of OHWM indicators (Lichvar and McColley 2008). Examples of non-wetland waters include lakes, rivers, and streams. Non-wetland water types potentially subject to both Corps and RWQCB/SWRCB jurisdiction were investigated and identified in the field and as part of this report.

3.2.1 Ordinary High Water Mark

Consistent with Corps delineation methodology, the OHWM was used to identify the limits of non-wetland waters. The location of the OHWM was determined based on a combination of indicators observed on the ground (e.g., water stains, scour marks, and sediment sorting). Where direct access to the OHWM was feasible, it was mapped in the field using a GPS unit with mapping grade accuracy. Where direct access to the OHWM was not feasible, the location of the OHWM was hand drawn in the field on aerial photographs and topographic maps for subsequent digitizing in ArcGIS. The width between the OHWM was visually estimated in the field and recorded for each feature.

4.0 STUDY AREA DESCRIPTION

The approximately 6-acre Study Area is located on the west side of Interstate-80, approximately three miles northeast of central Auburn in western Placer County, California (Appendix A – Figure 1). The Study Area can be reached from I-80 eastbound from the Bowman Road exit 122. The Study Area is bounded by Bowman Charter School to the northeast, I-80 corridor to the east, and rural residences to the south and west. Habitat conditions within the Study Area are generally disturbed from past placer mining and grading/stockpiling activities during construction of the Bowman Charter School in 2018.

4.1 Vegetation

There are three major vegetation communities in the Study Area, including ruderal grassland, foothill pine-interior live oak woodland, and willow riparian scrub (Appendix A – Figure 2). Annual grassland, characterized primarily by an assemblage of non-native grasses and forbs, is present in the northeastern portion of the property in a previously graded and disturbed area adjacent to an unnamed service road associated with Bowman Charter School. Dominant grass species within this community consists of Italian rye grass (Festuca perennis; FAC), orchard grass (*Dactylis glomerata*; FACU), soft chess (*Bromus hordeaceous*; UPL), ripgut brome (*Bromus diandrus*; UPL), wild oat (*Avena barbata*; UPL). Other herbaceous species include stinkwort (*Dittrichia graveolens*; UPL), spring vetch (*Vicia sativa*; FACU),

(*Geranium molle*; UPL), (*Lactuca serriola*; FACU) curly dock (*Rumex crispus*; FAC), rose clover (*Trifolium hirtum*; UPL), star thistle (*Centaurea solstitialis*; UPL), and Italian thistle (*Carduus pycnocephalus*; UPL). Foothill pine-interior live oak woodland occurs throughout a majority of the Study Area. The overstory of this community is dominated by interior live oak (*Quercus wislizeni*; UPL), foothill pine (*Pinus sabiniana*; UPL), and occasional blue oak (*Quercus douglasii*; UPL). Species in the shrub-dominated understory include coyotebrush (*Baccharis pilularis*; UPL), California blackberry (*Rubus ursinus*), bur chervil (*Anthriscus caucalis*; UPL), field hedge parsley (*Torilis arvensis*; UPL), and poison oak (*Toxicodendron diversilobum*; FACU), with grassland components in canopy openings, including non-native species described above with the addition of native blue wildrye (*Elymus glaucus*; FACU) and needlegrass (*Nassella*, sp.; UPL). Patches of riparian scrub occurs in the eastern portion northwestern portion of the site along an unnamed intermittent stream. The overstory of this community contains willows (*Salix* spp.; FACW), and interior live oaks with a dense and continuous understory of Himalayan blackberry (*Rubus armeniacus*; FAC) and poison oak.

4.2 Topography and Soils

Topography on the site is generally level, and gradually slopes to the southwest of the site. Elevations from northwest to southeast on the site range from approximately 1,600 to 1,630 feet above mean sea level (MSL). The Soil Survey of Placer County, Western Part (USDA 1980 and 2021) and SoilWeb (CSRL 2021) list two soil mapping units within the Study Area: Auburn, 2 to 9 percent slopes and Xerorthents, cut and fill. General characteristics associated with each soils type is described below.

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) has identified two soil map units within the project site:

Auburn silt loam, 2 to 15 percent slopes: The Auburn series consists of shallow to moderately deep, well drained soils formed in material weathered from amphibolite schist. Auburn soils are on foothills on slopes of 2 to 75 percent. This soil type is found on low hills in the Loomis Basin between 200 and 1,000 feet above MSL. The soil is moderately deep and well-drained. Natural vegetation includes annual grasses, herbaceous species, blue and live oak, and scattered pines. Permeability in this soil is moderately rapid and surface runoff is medium. This soil type is not classified as hydric (USDA 2021).

Xerorthents, Placer: This soil unit consists of stony, cobbly, and gravelly material commonly adjacent to streams that have been placer mined. Natural vegetation varies, but generally consists of annual grasses, oak and willow. Derived from a mixture of rocks, cut and fill areas are typically well-drained and surface runoff is rapid. Permeability and water capacity are variable. This soil type is classified as hydric when occurring within drainageways (USDA 2021).

4.3 Hydrology and Climate

The Study Area is located in the Sacramento region, within the Coon Creek watershed (Hydrologic Unit Code 8 [NRCS 2021]). The region has a Mediterranean climate with dry hot summers and mild winters. Over the course of a year, average high temperatures typically vary from 54°F in the winter to around 92°F in the summer. Precipitation occurs mostly from November through April in the form of rain, averaging around 25 inches per year. Little or no precipitation falls during June, July, and August.

The primary hydrologic source supporting wetland and other water features within the Study Area appears to be re-directed, channelized surface water from an unnamed tributary to Dry Creek on the eastern (opposite) side if I-80. The tributary flows from the northeast, under I-80 via culvert, then onto the eastern portion of the Study Area. While the Auburn USGS quadrangle does not show a "blue line" stream on the Study Area, it depicts the unnamed tributary as a blue line stream flowing in proximity to the eastern portion of the site, which then branches off to another unnamed tributary, flowing directly southeast to the North Fork American River. Flows directed south eventually join the confluence of several canals that eventually flow into the Sacramento River via the Cross Canal.

5.0 RESULTS

Descriptions of all aquatic resources identified within the Study Area are provided in the following sections, including areas meeting both the Corps and RWQCB/SWRCB wetland definitions. As discussed above, features in this report are classified based on the Corps definition of wetlands. State-defined wetlands include areas lacking vegetation and containing anaerobic substrate, in addition to features the meet the Corps definition. A map showing the location and extent of potential jurisdictional waters mapped within the Study Area is provided in Appendix A – Figure 3. A summary of acreages of potential Corps jurisdiction under Section 404 of the CWA and potential RWQCB jurisdiction under Section 401 of the CWA is provided in Table 2 below. Wetland Determination Data Forms are provided as Appendix B. Photographs of the Study Area are provided as Appendix C. The results of a precipitation and hydrological analysis is included as Appendix D.

TABLE 2. SUMMARY OF WETLANDS AND NON-WETLAND WATERS MAPPED WITHIN THE STUDY AREA

Feature Type	Classification[1]	Potential Section 404 Waters of the U.S.		Potential Waters of the State	
		Acres	Linear Feet	Acres	Linear Feet
Wetlands					
Wetland Ditch	PEM1Fx	0.01	--	0.01	--
	Total:	**0.01**	**--**	**0.01**	**--**
Intermittent Drainage	R4SBFx	0.12	344	0.12	344
	Total:	**0.13**	**344**	**0.13**	**344**

[1]See FGDC 2013

[2]Some non-wetland waters may meet the definition of a wetland in the State Wetland Policy.

5.1 Wetlands

Wetland Ditch

Wetland ditch WD-1 (0.01 acre) is located in a man-made ditch along the eastern boundary of the Study Area. It is situated within a low spot adjacent to the outfall of a buried culvert under Bowman Road. This feature is dominated by cattails (*Typha* sp.; OBL) and shallow standing water was present at the time of the survey. This feature presumably receives runoff from an unnamed tributary to Dry Creek, which results in prolonged inundation. Hydric soils were assumed based on the presence of perennial surface water and the fact that hydrophytic vegetation and several indicators of wetland hydrology were met. Primary indicators of wetland hydrology included Surface Water (A1), High Water Table (A2) (assumed based on perennial surface water), and Saturation (A3); secondary indicators included Drainage Patterns (B10) and FAC-Neutral Test (D5). Wetland boundaries were determined based primarily on the edge of vegetation and channel morphology.

The wetland ditch is classified by the USFWS Cowardin classification system as PEM1Fx: Palustrine (P), emergent (EM), persistent (1), semipermanently flooded (F), excavated (x).

Intermittent Drainage

Intermittent drainages are features that do not meet the three-parameter criteria for vegetation, hydrology and soils, but do convey water and exhibit an OHWM. Water flows within intermittent drainages are fed primarily by a seasonally perched groundwater table and supplemented by precipitation and stormwater runoff. After the initial onset of rains, these features have persistent flows throughout and past the end of the rainy season, generally drying out during the driest time of the year. Typically, these features exhibit a well-defined bed and bank.

Intermittent drainage ID-1 (0.12 acre/344 linear feet) is a prominent man-made excavated ditch that had 2-4 inches of gently flowing water at the time of the site visit. The feature flows along the eastern and southern boundaries of the Study Area. Surface water appears to originate from an off-site tributary to Dry Creek that flows onto the site from a culvert under Bowman Road. The width between the OHWM is approximately 15 feet. The banks are stable and vegetated with willow-dominated riparian and interior live oak woodland communities. Surface water is confined to the incised, channelized banks of the excavated ditch feature.

The intermittent drainage feature ID-1 is classified as R4SBFx: Riverine (R), intermittent (4), streambed (SB), semipermanently flooded (F), excavated (x)

5.2 Difficult Wetland Situations/Disturbed Areas

Microtopographic highs and lows were evaluated throughout the previously disturbed grassland area and are represented by sample points P1, P2, P3, P4, P7, and P8. Because of previous site disturbance, vegetation and soils were examined at a number of exploratory excavations in disturbed and undisturbed reference areas with a similar topographic setting; this effort was conducted to understand the soil-hydrologic relationships at the site and determine if hydrophytic vegetation and hydric soil criteria would be met in the absence of disturbed conditions.

Based on a review of aerial photographs and field assessment of surrounding vegetation communities, the disturbed grassland area previously supported an upland (non-wetland) community consisting of coyote brush scrub mixed with interior live oak, similar to the adjacent community. Based on slope shape and lack of hydrology (no prolonged standing water or saturation) or evidence of recent overland flow, surface water would run off readily and it was determined that the sampled area would not be subject to prolonged inundation or soil saturation during the growing season that would support hydric soil development. Upon careful examination of topographic highs (disturbed area dominated by coyote brush) and lows (within drainage pattern in disturbed area), it was determined that none of the sampled soil pits in the disturbed area exhibited morphological features reflect hydric conditions and originate from mixed fill soils. Soil morphology in the was not distinct between topographic low/high areas. Disturbed fill soils contained various pieces of imported parent material mixed into the matrix that are yellow and red in color and not indicative of hydric soil development at all sampled locations where soil was characterized as disturbed on the data forms. One secondary hydrology indicator, drainage pattern, was observed in the disturbed grassland area. Based on review of past aerial photos, the drainage pattern appeared to develop during construction of the school across a newly graded and sloped area on the downhill side of a recently constructed access road. However, the previously formed rill feature is currently well-vegetated, stabilized, and exhibits no evidence of active flows, i.e., destruction of vegetation/exposed roots, transport of sediment, bank erosion, or other indicators of recent surface flows. This is also evident in the lack of outflow at the mouth of the recently constructed culvert following a significant precipitation event.

6.0 CONCLUSION

The results of this delineation of aquatic resources was based on conditions observed during the time of the assessment and information provided to WRA by representatives from the Bowman Charter School (property owner). The delineation uses the federal methodology to determine the potential boundaries of wetlands and non-wetland features and is consistent with the approach used by the RWQCB to determine wetlands subject to the State Wetland Policy. These results are considered to be preliminary until verified by the Corps and/or until any permits are issued by agencies authorizing activities within this area.

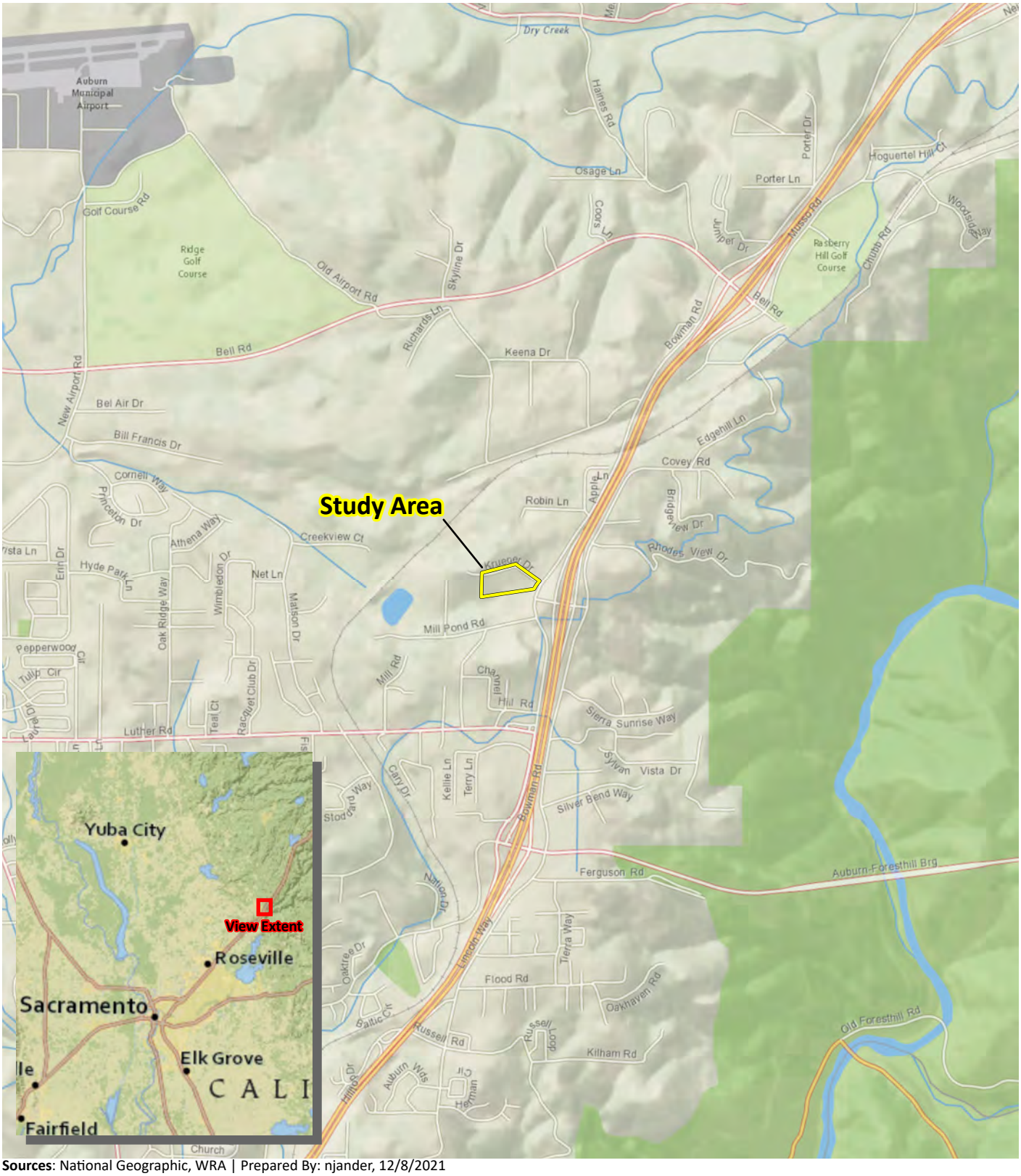
7.0 REFERENCES

Corps 2008a	U.S. Army Corps of Engineers. 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). September.
Corps 2008b	U.S. Army Corps of Engineers. 2008b. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. Unites States. December 2.
Corps 2014	U.S. Army Corps of Engineers. 2014. A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Regions of the United States. August.
Corps 2018	U.S. Army Corps of Engineers. 2018. National Wetland Plant List, version 3.4. Engineer Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH. Online at: http://wetland-plants.usace.army.mil/; most recently accessed: November 2021.
CSRL 2021	California Soil Resource Lab. 2021. SoilWeb: An online soil resource browser. Online at: http://casoilresource.lawr.ucdavis.edu/gmap; most recently accessed: November 2021.
Deters 2021	Antecedent Precipitation Tool version 1.0.13. Online at: https://github.com/jDeters-USACE; most recently accessed: November 2021.
Environmental Laboratory 1987	Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Department of the Army, Waterways Experiment Station, Vicksburg, Mississippi 39180-0631.
FGDC 2013	Federal Geographic Data Committee. 2013. Classification of Wetlands and Deepwater Habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.
Google Earth 2021	Google Earth. 2021. Aerial Imagery 1993-2021. Most recently accessed: November 2021.
Jepson Flora Project 2021	Jepson Flora Project (eds.). 2019. Jepson eFlora. Online at: http://ucjeps.berkeley.edu/IJM.html; most recently accessed: November 2021.
Lichvar and McColley 2008	Lichvar, R.W. and S.M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. U.S. Army Corps of Engineers. August.

NRCS 2021	Natural Resources Conservation Service. 2021. Watershed Boundary Dataset. Online: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/water/watersheds/dataset/; most recently accessed: November 2021.
USDA 1997	U.S. Department of Agriculture. 1997. Chapter 19. Hydrology tools for wetland determination. Engineering Field Handbook.
USDA 2021	U.S. Department of Agriculture. 2021. National List of Hydric Soils. Natural Resources Conservation Service. Online at: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/; most recently accessed: November 2021.
USDA 1980	U.S. Department of Agriculture. 1980. Soil survey of Western Placer County. Online at: http://websoilsurvey.nrcs.usda.gov; most recently accessed: November 2021.
USFWS 2021	U.S. Fish and Wildlife Service. 2021. National Wetlands Inventory. Online at: http://www.fws.gov/nwi; most recently accessed: November 2021.
USGS 2021	U.S. Geological Survey. 2021. Auburn Quadrangle, California. 7.5-minute topographic map.

APPENDIX A – FIGURES

FIGURE 1. STUDY AREA LOCATION



Path: I:\Acad 2000 Files\31000\31343\GIS\ArcMap\31343_Edits_20211208\31343_Edits_20211208.aprx

Sources: National Geographic, WRA | Prepared By: njander, 12/8/2021

Figure 1. Study Area Regional Location Map

Bowman Charter School
Auburn, California

0 0.5 1 Miles

N

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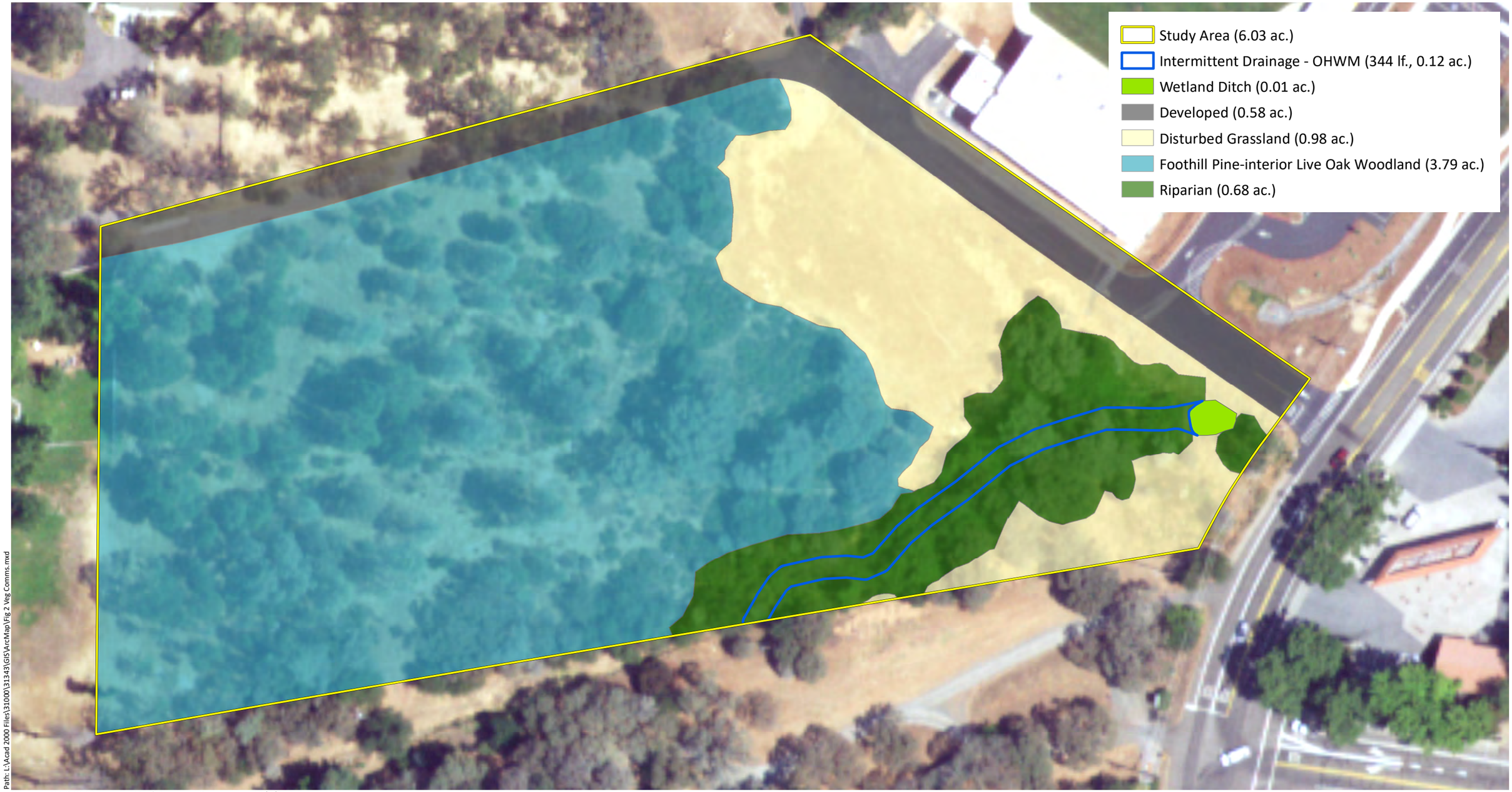
FIGURE 2. VEGETATION COMMUNITIES AND LAND COVER TYPES



Path: L:\Acad 2000 Files\31000\31343\GIS\ArcMap\Fig 2 Veg Comms.mxd

Sources: NAIP 2018 Aerial, WRA | Prepared By: njander, 12/8/2021

Figure 2. Map of Vegetation Communities and other Land Cover Types

Bowman Charter School
Auburn, California

ENVIRONMENTAL CONSULTANTS

FIGURE 3. POTENTIAL JURISDICTIONAL FEATURES LOCATED WITHIN THE STUDY AREA

Jurisdictional Feature	Name/ID	Area (Acres)	Length (Linear Feet)
Intermittent Drainage	ID-1	0.12	344
Wetland Ditch	WD-1	0.01	

Path: L:\Acad 2000 Files\31000\31343\GIS\ArcMap\Fig 3 Delineaiton.mxd

Sources: NAIP 2018 Aerial, WRA | Prepared By: njander, 12/8/2021 | Delineation by: Amy Parravano

Figure 3. Aquatic Resources Delineation Map

Bowman Charter School
Auburn, California

1 inch = 65 ft

0 65 130 Feet

N

wra ENVIRONMENTAL CONSULTANTS

APPENDIX B – WETLAND DETERMINATION DATA FORMS

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P1
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): undulating | Slope (%): 3
Subregion (LRR): LRR C | Lat: -121.057424° | Long: 38.934295° | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes ____ No x
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Sample point collected at culvert outflow on disturbed area previously filled/graded during 2018. Site was previously foothill pine-live oak woodland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 10x10)			
1. *Lolium perenne*	80	Yes	FAC
2. *Lactuca serriola*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	80	x 3 =	240
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	90 (A)		280 (B)

Prevalence Index = B/A = 3.11

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Vegetation composition is representative of disturbed grassland area.

SOIL

Sampling Point: P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/4	60					Loamy/Clayey	multicolored rocks in matrix (40%)
10-16	5YR 4/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

Disturbed fill soils composed of mechanically removed and mixed rock/gravel, clay, and clay loam soils. Multi-colored matrix above ~10 inches: other colors 10YR 5/6 (30%), 10YR 6/6 (10%) - horizons not readily discernible.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- x Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

well vegetated, faint drainage pattern. Appears to have formed immediate following site grading and no evidence of recent flows, i.e. scour, sediment deposition, or destruction of vegetation was observed. Water table and saturation greater than 16 inches in depth within sample pit.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P2
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): convex | Slope (%): 3
Subregion (LRR): LRR C | Lat: -121.057656° | Long: 38.934325° | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point collected in disturbed grassland area filled/graded during school consrtuction in 2018. Site was previously foothill pine-live oak woodland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 10x10)			
1. *Baccharis pilularis*	5	Yes	UPL
2.			
3.			
4.			
5.			
	5 =Total Cover		
Herb Stratum (Plot size: 10x10)			
1. *Lolium perenne*	90	Yes	FAC
2. *Rumex crispus*	5	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	0	x 4 =	0
UPL species	5	x 5 =	25
Column Totals:	100 (A)		310 (B)

Prevalence Index = B/A = 3.10

Hydrophytic Vegetation Indicators:
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Vegetation composition is representative of disturbed grassland area with uniform species composition throughout.

SOIL

Sampling Point: P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/4	80					Loamy/Clayey	multicolored rocks/gravel in matrix
	10YR 5/4	10						rock
	5YR 6/6	10						rock

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

Soil is composed of fill with clay loam texture with mixed rock, gravel, and wood chips in the matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P3
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): none | Slope (%): 3
Subregion (LRR): LRR C | Lat: -121.057772° | Long: 38.934343° | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No x
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Sample point collected infoothill pine/interior live oak woodland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10x10)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus wislizeni*	40	Yes	UPL
2.			
3.			
4.			
	40	=Total Cover	
Sapling/Shrub Stratum (Plot size: 10x10)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 10x10)			
1. *Dactylis glomerata*	25	Yes	FACU
2. *Vicia sativa*	5	No	FACU
3. *Geranium molle*	5	No	UPL
4. *Anthriscus caucalis*	5	No	UPL
5.			
6.			
7.			
8.			
	40	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	30	x 4 =	120
UPL species	50	x 5 =	250
Column Totals:	80 (A)		370 (B)

Prevalence Index = B/A = 4.63

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Vegetation composition is representative of foothill pine/interior live oak woodland, which is the dominant plant community type within the Study Area.

SOIL

Sampling Point: P3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 4/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:
Not hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P4
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): none | Slope (%): 3
Subregion (LRR): LRR C | Lat: -121.057333° | Long: 38.934107° | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point collected in disturbed grassland area filled/graded during school consrtuction in 2018. Site was previously foothill pine-live oak woodland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 10x10)			
1. *Baccharis pilularis*	15	Yes	UPL
2.			
3.			
4.			
5.			
	15 =Total Cover		
Herb Stratum (Plot size: 10x10)			
1. *Lolium perenne*	20	Yes	FAC
2. *Dittrichia graveolens*	35	Yes	UPL
3. *Centaurea solstitialis*	25	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	80 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	75	x 5 =	375
Column Totals:	95 (A)		435 (B)
Prevalence Index = B/A =			4.58

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Vegetation composition is representative of disturbed grassland area with higher proportion of weedy forbs (yellow star thistle) than P1 and P2

SOIL

Sampling Point: P4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	7.5YR 4/4	100					Loamy/Clayey	multicolored rocks/gravel in matrix

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

Top layer of soil (upper 10- 15 inches) is composed of fill with clay loam texture and mixed rock, gravel, and wood chips in the matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed. Collected outside of vegetated drainage pattern represented by sample point P1.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P5
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): none | Slope (%): 2-3
Subregion (LRR): LRR C | Lat: -121.058148° | Long: 38.933510° | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No x
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Sample point collected infoothill pine/interior live oak woodland on upper bank of drainage ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10x10)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus wislizeni*	30	Yes	UPL
2.			
3.			
4.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size: 10x10)			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 10x10)			
1. *Dactylis glomerata*	30	Yes	FACU
2. *Nassella*	10	No	UPL
3. *Elymus glaucus*	5	No	FACU
4. *Anthriscus caucalis*	15	Yes	UPL
5. *Avena barbata*	1	No	UPL
6.			
7.			
8.			
	61	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	56	x 5 =	280
Column Totals:	91 (A)		420 (B)
Prevalence Index = B/A =			4.62

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Vegetation composition is representative of foothill pine/interior live oak woodland, which is the dominant plant community type within the Study Area.

SOIL

Sampling Point: P5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 4/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:
Not hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P6
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): none | Slope (%): 2-3
Subregion (LRR): LRR C | Lat: -121.058606° | Long: 38.933804° | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No x
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Sample point collected infoothill pine/interior live oak woodland on upper bank of drainage ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10x10)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus wislizeni*	15	Yes	UPL
2. *Pinus sabiniana*	10	Yes	UPL
3. *Quercus douglasii*	5	No	UPL
4.			
	30	=Total Cover	
Sapling/Shrub Stratum (Plot size: 10x10)			
1. *Quercus douglasii*	12	Yes	UPL
2.			
3.			
4.			
5.			
	12	=Total Cover	
Herb Stratum (Plot size: 10x10)			
1. *Elymus caput-medusae*	70	Yes	UPL
2. *Gerarnium molle*	5	No	UPL
3. *Dactylis glomerata*	5	No	FACU
4. *Anthriscus caucalis*	5	No	UPL
5. *Avena barbata*	5	No	UPL
6. *Plantago lanceolata*	2	No	FAC
7. *Elymus glaucus*	2	No	FACU
8.			
	94	=Total Cover	
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
		=Total Cover	

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	2	x 3 =	6
FACU species	7	x 4 =	28
UPL species	127	x 5 =	635
Column Totals:	136 (A)		669 (B)
Prevalence Index = B/A =			4.92

Hydrophytic Vegetation Indicators:
____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Vegetation composition is representative of foothill pine/interior live oak woodland, which is the dominant plant community type within the Study Area.

SOIL

Sampling Point: P6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	5YR 4/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:
Not hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No hydrology indicators observed.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P7
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): undulating | Slope (%): 0-1
Subregion (LRR): LRR C | Lat: -121.057693° | Long: 38.934066° | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No x	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Sample point collected in disturbed grassland area filled/graded during school construction in 2018. Site was previously foothill pine-live oak woodland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 10x10)			
1. *Baccharis pilularis*	20	Yes	UPL
2. *Rubus armeniacus*	30	Yes	FAC
3.			
4.			
5.			
	50 =Total Cover		
Herb Stratum (Plot size: 10x10)			
1. *Elymus caput-medusae*	40	Yes	UPL
2. *Elymus glaucus*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	50 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	60	x 5 =	300
Column Totals:	100 (A)		430 (B)

Prevalence Index = B/A = 4.30

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Upland grassland area - does not meet hydrophytic vegetation criterion.

SOIL

Sampling Point: P7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	7.5YR 4/4	100					Loamy/Clayey	multicolored rocks/gravel in matrix

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

Fill soils with with clay loam texture and mixed rock, gravel, and wood chips in the matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed. Collected outside of vegetated drainage pattern represented by sample point P1.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P8
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): Hillslope | Local relief (concave, convex, none): none | Slope (%): 5
Subregion (LRR): LRR C | Lat: -121.057333° | Long: 38.934086 | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ____ No X
Hydric Soil Present? Yes ____ No x
Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
Sample point collected in disturbed grassland area filled/graded during school consrtuction in 2018. Site was previously foothill pine-live oak woodland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 10x10)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 10x10)			
1. *Lolium perenne*	40	Yes	FAC
2. *Dittrichia graveolens*	30	Yes	UPL
3. *Centaurea solstitialis*	25	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	=Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	55	x 5 =	275
Column Totals:	95 (A)		395 (B)

Prevalence Index = B/A = 4.16

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks:
Vegetation composition is representative of disturbed grassland area.

SOIL

Sampling Point: P8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 5/4	100					Loamy/Clayey	multicolored rocks/gravel in matrix

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

Top layer of soil (upper 10- 15 inches) is composed of fill with clay loam texture and mixed rock and other materials in the matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No x Depth (inches): 0

Water Table Present? Yes ___ No x Depth (inches): ___

Saturation Present? Yes ___ No x Depth (inches): ___

(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators observed. Collected on hillslope.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Bowman Charter School | City/County: Auburn/Placer | Sampling Date: 11/15/21
Applicant/Owner: Bowman Charter School | State: CA | Sampling Point: P9
Investigator(s): Amy Parravano | Section, Township, Range: S35, T12N, R8E
Landform (hillside, terrace, etc.): ditch | Local relief (concave, convex, none): concave | Slope (%): 0
Subregion (LRR): LRR C | Lat: -121.056581 | Long: 38.933878 | Datum: NAD84
Soil Map Unit Name: Auburn silt loam, 2 to 15 percent slopes | NWI classification: n/a
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)
Are Vegetation ____, Soil x, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes x No ____
Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

Remarks:
Sample point collected in ponded wetland ditch dominated by cattails.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ =Total Cover		
Sapling/Shrub Stratum (Plot size: 10x10)			
1.			
2.			
3.			
4.			
5.			
	____ =Total Cover		
Herb Stratum (Plot size: 10x10)			
1. *Typha angustifolia*	80	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80 =Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ =Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		80 (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:
Vegetation composition is representative of disturbed grassland area.

SOIL

Sampling Point: P9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Iron-Manganese Masses (F12) **(LRR D)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** ___

Remarks:
Soil inundated and presumed hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- x Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- x Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No ___	Depth (inches): 2	
Water Table Present?	Yes x	No ___	Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes x	No ___	Depth (inches): 0	**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Sample point collected in ponded ditch - criterion met.

APPENDIX C – STUDY AREA PHOTOGRAPHS

Photograph 1. Photograph of sample point P-1, located in a disturbed grassland area in the northern portion of the Study Area. View facing north. Photograph taken November 15, 2021.

Photograph 2. Photograph of sample point P-2, located in a disturbed grassland area in the northern portion of the Study Area. View facing east. Photograph taken November 15, 2021.

Photograph 3. Photograph of sample point P-3, located in oak woodland in the northern portion of the Study Area. View facing northwest. Photograph taken November 15, 2021.

Photograph 4. Photograph of sample point P-4, located in a coyote brush scrub/grassland area in the northern portion of the Study Area. View facing west. Photograph taken November 15, 2021.

Photograph 5. Photograph of sample point P-5, located in oak woodland in the southern portion of the Study Area. View facing west. Photograph taken November 15, 2021.

Photograph 6. Photograph of sample point P-6, located in foothill pine-oak woodland in the western portion of the Study Area. View facing north. Photograph taken November 15, 2021.

Photograph 7 . Photograph of sample point P-7, located in oak woodland with understory of coyote brush scrub in the southern portion of the Study Area. View facing west. Photograph taken November 15, 2021.

Photograph 8. Photograph of sample point P-8, located in a disturbed grassland area in the northeast portion of the Study Area. View facing northeast. Photograph taken November 15, 2021.

Photograph 9 . View of sample point P-9 collected in wetland ditch (0.01 ac) in southeastern portion of Study Area. Facing southeast. Photograph taken November 15, 2021.

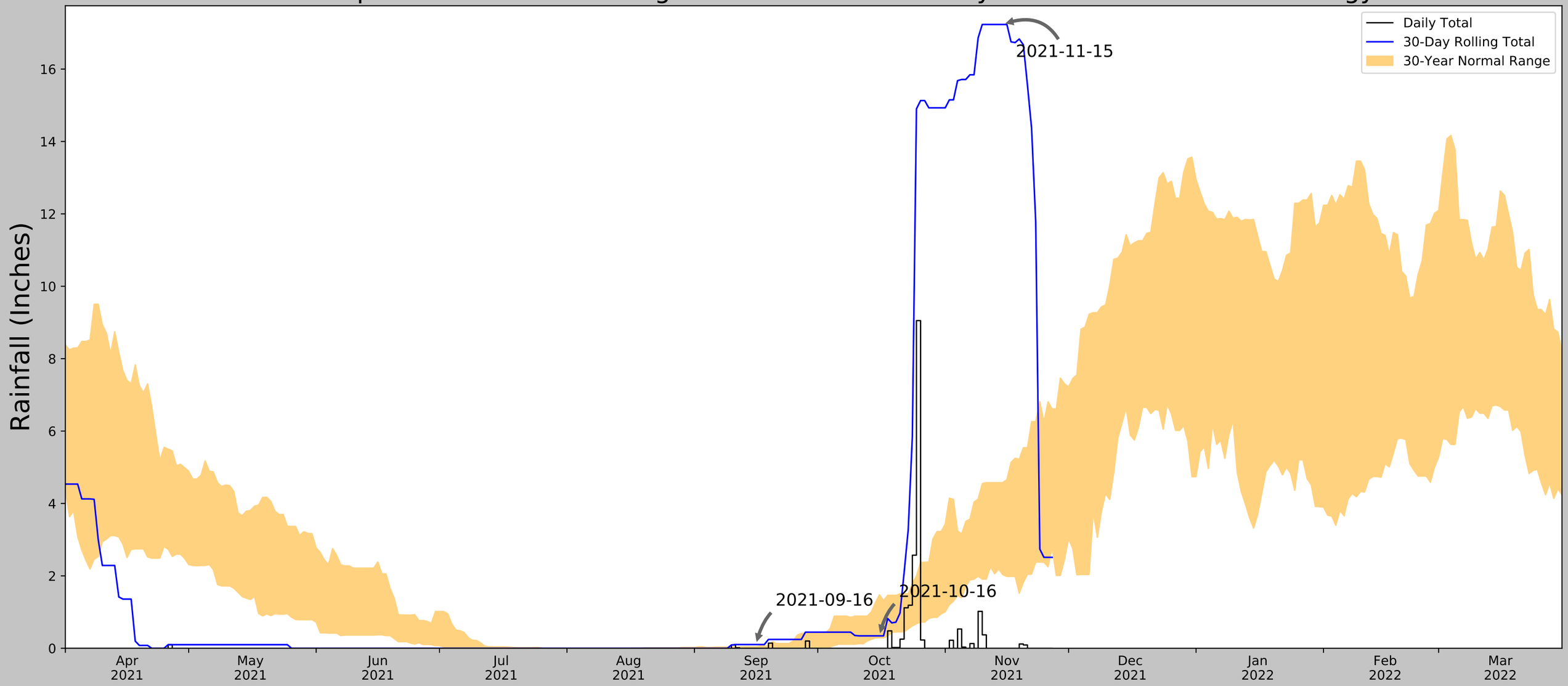
Photograph 10. View of drainage ditch in the southeastern corner of the Study Area. View facing north. Photograph taken November 15, 2021.

Photograph 11 . View of drainage ditch OHWM in the southeastern corner of of the Study Area. Photograph taken November 15, 2021.

Photograph 12. Typical view of disturbed fill soils examined at sample points collected in northern portion of Study Area. Photograph taken November 15, 2021.

APPENDIX D –ANTECEDENT PRECIPITATION TOOL ANALYSIS

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	38.934089, -121.057401
Observation Date	2021-11-15
Elevation (ft)	1606.47
Drought Index (PDSI)	Moderate drought (2021-10)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-11-15	2.032677	4.575984	17.232284	Wet	3	3	9
2021-10-16	0.288583	1.477559	0.34252	Normal	2	2	4
2021-09-16	0.0	0.03937	0.102362	Wet	3	1	3
Result							Wetter than Normal - 16

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
GRASS VALLEY #2	39.2042, -121.0681	2399.934	18.672	793.464	23.218	11072	83
AUBURN 3.1 N	38.9362, -121.0679	1527.887	0.583	78.583	0.308	2	0
AUBURN 4.8 N	38.9602, -121.0923	1444.882	2.602	161.588	1.591	1	7
AUBURN	38.9072, -121.0839	1291.995	2.341	314.475	1.79	228	0
KELSEY 1 N	38.8089, -120.8208	2000.0	15.389	393.53	12.981	50	0

APPENDIX E

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605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

August 12, 2019 11799-02.7

Kelly Graham
Ackerman Charter School District
13777 Bowman Road
Auburn, California, 95603

Subject: *Soil Sampling for Bowman Charter School Field Project, Placer County, California*
APNs 053-090-024 and 053-090-023

Dear Mr. Graham:

This letter documents the background information, objective, methods, and results for the soil sampling that was performed by Dudek for the property located at 13777 Bowman Road in Auburn (APNs 053-090-024 and 053-090-023) (site; Figure 1, Attachment A) per the scope outlined in the cost for subsurface investigation letter dated June 18, 2019.

Executive Summary

A Phase I ESA was conducted for the site in June 2019 (Dudek 2019). As discussed in the Phase I ESA, the site was historically used for agricultural and there were indications of ongoing weed abatement. Thus, soil sampling was recommended to determine if pesticides, herbicides, and/or metals are present in soil above regulatory screening levels.

The soil sampling event was conducted at the site on July 5, 2019. Four soil samples were collected for analysis of arsenic, six soil samples (were collected from thirteen boring locations) for analysis of organochlorine pesticides (OCP's) and four soil samples were collected for analysis of herbicides. Areas of potential impacts from arsenic and OCP's were determined based on historical aerial photographs and topographical maps. Area of potential impacts from herbicides were determined based on denuded vegetation observed during the site reconnaissance while conducting the Phase 1 ESA.

OCP's (4,4'-DDD, 4,4'-DDE, 4,4'-DDT and dieldrin) were detected in all samples above laboratory method detection limits, but the concentrations were below the regulatory screening levels. Herbicides in all samples were below the laboratory method detection limits. Arsenic was detected in all samples but concentrations were below the maximum background concentration for California soils.

Background Information

A Phase I ESA was prepared for the site by Dudek in June 2019 (Dudek, 2019). Per the findings in the Phase I ESA, the site was historically used for agricultural purposes from at least 1938 until at least 1984. The history of agricultural use on the site is an indicator of the use of pesticide and potentially pesticides containing arsenic. The denuded vegetation observed during the site reconnaissance conducted on April 11 and 15, 2019 is an indicator of the ongoing and/or past use of herbicides.

Objective

The soil sampling was conducted as recommended by Dudek, based on the finding of the Phase I ESA (Dudek 2019), to determine if there were impacts to the site, given its historical agricultural use and potential present use of chemicals for weed abatement. The constituents of potential concern included OCP's, herbicides and arsenic (used in pesticides).

Methods and Procedures

Methods and procedures as outlined in the Department of Toxic Substances Control (DTSC) guidance for sampling agriculture properties (DTSC 2008) were followed. The soil sampling was conducted on July 5, 2019 by Jonathan Martin of Dudek. The soil samples were collected from approximately 0 to 6 inches below ground surface (bgs) at the locations as shown in Figures 2, 3 and 4 (Attachment A).

Soil was collected from four locations (SA-1 to SA-4) across the site, where historical agriculture use was observed. Four discrete soil samples from these locations were analyzed for arsenic (EPA Method 6020). The locations of the arsenic samples are shown on Figure 2 (Attachment A).

Soil was collected from four locations (SH-1 to SH-4) across the site, where the denuded vegetation was observed. Four discrete soil samples from these locations were analyzed for herbicides (EPA Method 8151). The locations of the herbicides samples are shown on Figure 3 (Attachment A).

Soil was collected from thirteen locations (S-1 to S-13) across the site (Figure 3- Attachment A) where the historical agriculture use was observed. Six composite soil samples, each made up of soil from two to three locations, were analyzed for OCPs by EPA Method 8081A. Sample (SO-1) comprised two locations in the northwestern corner of the site (S-1 and S-2). Sample (SO-2) comprised two locations in the southwestern corner of the site (S-3 and S-4). Sample (SO-3) comprised two locations near center and the southern boundary of the site (S-5 and S-6). Sample (SO-4) comprised three locations (S-7 to S-9) from the southeastern area of site. Sample (SO-5) comprised two locations from the north eastern corner of the site (S-10 and S-11). Sample (SO-6) comprised two locations in the center and near the northern boundary of the site (S-12 and S-13).

Soil from 0-6 inches bgs was collected using a dedicated hand trowel at each location. Soil was placed directly into a pre-cleaned laboratory-supplied 16-ounce glass jar. The sample was then labeled with a unique identifier, logged on a chain-or-custody form, and placed in an ice-chilled cooler. The samples were transferred to BC Laboratories, Inc., Sacramento, California for analysis.

Results

Sample results are summarized in Tables 1, 2, and 3 (Attachment B) and the complete laboratory report is provided as Attachment C. Results were compared to regulatory screening levels including regional screening levels (RSLs), environmental screening levels (ESLs) and background screening levels as noted in the References section of this report as well as the tables.

Arsenic

Four discrete soil samples were collected and analyzed for arsenic by EPA Method 6020 (Figure 2, Attachment A). Arsenic was detected in all four samples (Table 1, Attachment B). The arsenic concentrations ranged from 2.1 to 8 mg/kg. Concentrations of arsenic in all the four samples were above regulatory screening levels. However, all of the detections were below the maximum concentration (11 mg/kg) for background concentrations of arsenic in California soils (UCR 1996).

Herbicides

Four discrete soil samples were collected and analyzed for herbicides by EPA Method 8151 (Figure 3, Attachment A). No herbicides were detected above the laboratory reporting limits or regulatory screening levels in any of the four soil samples analyzed (Table 2, Attachment B).

Organochlorine Pesticides

Six composite soil samples were collected and analyzed for OCPs by EPA Method 8081A (Figure 4, Attachment A). The following OCPs were detected above their respective laboratory detection limits in all the six composite samples: 4, 4'-DDD, 4,4'-DDE, 4,4' DDT and dieldrin. However, none of the detected OCPs were above the regulatory screening levels (Table 3, Attachment B)

Summary and Recommendations

Due to the historical use of the site for agricultural purposes, residual pesticides and metals (specifically, arsenic) may have been present in shallow soil. Dudek conducted shallow soil sampling across the site. Six composite soil samples were analyzed for organochlorine pesticides and four discrete soil samples were analyzed for arsenic and four for herbicides. Detections of OCPs were below regulatory screening levels. No herbicides were detected above the laboratory method detection limits and therefore were also below regulatory screening levels. Arsenic was detected in all samples above regulatory screening levels but below the background concentration for California soils.

This assessment did not reveal potential concerns associated with the use of pesticides, metals or herbicides at the site. Thus, no further investigation appears warranted at this time

We appreciate this opportunity to assist you. If you have any questions, please contact me at 760.479.4130 or gmcmahon@dudek.com.

Sincerely,

Glenna McMahon, P.E.

Att.: A Figures
B Tables
C Laboratory Analytical Report

cc: Markus Lang, Dudek

References

California Water Boards 2019. Environmental Screening Levels San Francisco Bay Regional Water Quality Control Board Tier 1. January 2019. Revision 1.

DTSC (California Department of Toxic Substances Control). 2008. *Interim Guidance for Sampling Agricultural Properties (Third Revision)*. California Department of Toxic Substances Control. California Environmental Protection Agency. August 7, 2008.

DTSC. 2019. Human and Ecological Risk, Human health Risk Assessment Note 3, Modified Screening Levels. Table 1, DTSC Recommended Screening Levels for Soil. April 2019.

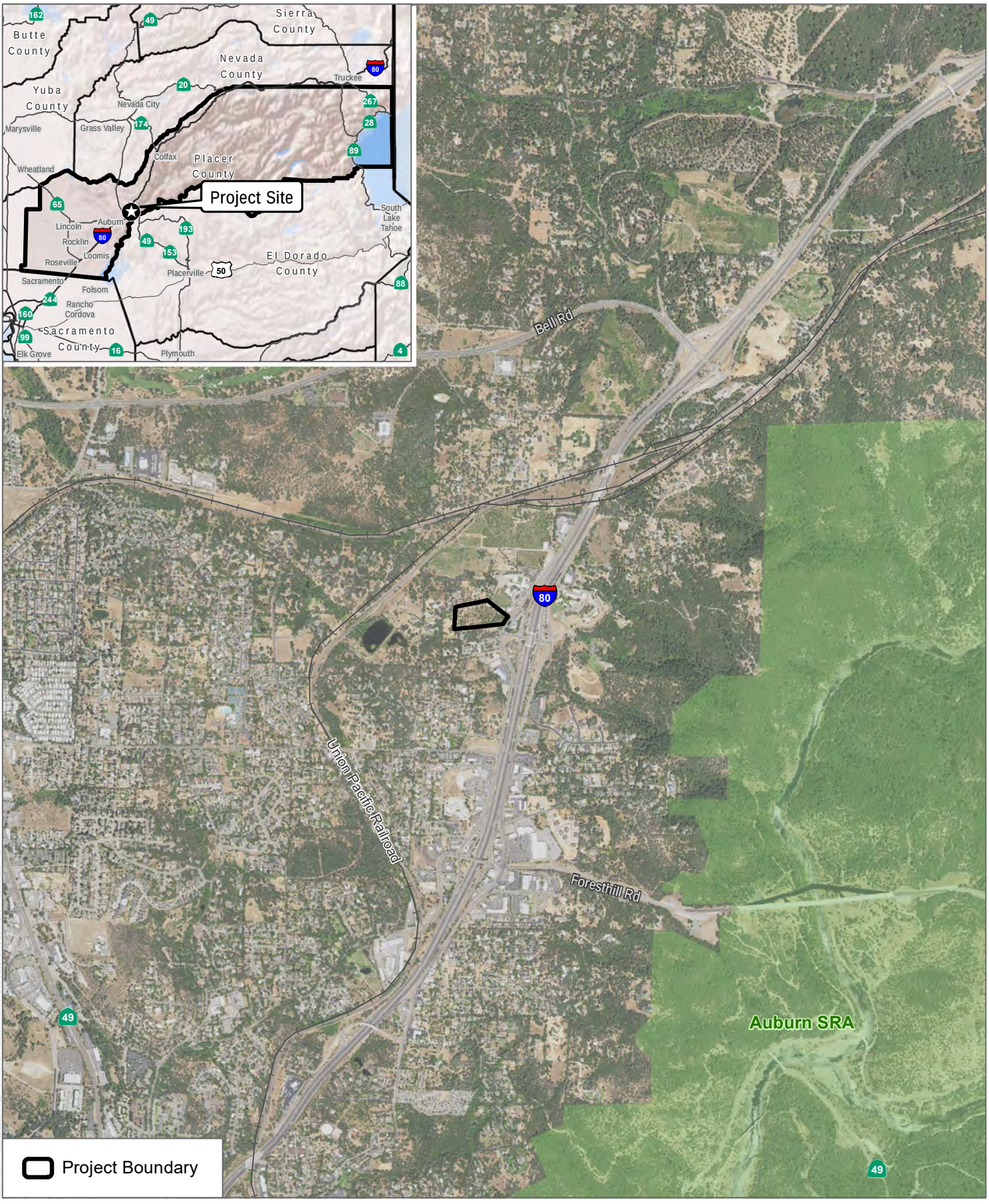
Dudek, 2019. Phase I Environmental Site Assessment, Bowman Charter School field Project, 13777 Bowman Road, Auburn, Placer County, California. June 2019.

EPA (U. S. Environmental Protection Agency). 2019. Regional Screening Level Summary Table (TR=1E-06, HQ=1). May 2019.

University of California, Riverside 1996. Background Concentrations of Trace and Major Elements in California Soils. Kearney Foundation for Soil Science, Division of Agriculture and Natural Resources, University of California. March 1996.

Attachment A

Figures



SOURCE: USDA 2016, CA State Parks 2018

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Bowman Charter School Athletic Fields Project - Phase I ESA

SOURCE: USDA 2016

DUDEK

0 65 130 Feet

FIGURE 2

Arsenic Sample Locations

Bowman Charter School Field Project -Soil Sampling

SOURCE: USDA 2016

DUDEK

0 80 160 Feet

FIGURE 3

Herbicide Sample Locations

Bowman Charter School Field Project -Soil Sampling

SOURCE: USDA 2016

DUDEK

0 80 160 Feet

FIGURE 4

Boring Locations for Organochlorine Pesticide Samples

Bowman Charter School Field Project -Soil Sampling

Attachment B

Tables

Table 1. Arsenic in Soil Samples

Sample ID	Sample Date	Arsenic (mg/kg)
SA-1	7/5/2019	8
SA-2		3.5
SA-3		3.4
SA-4		2.10
Background Concentration [1]		*3.5 (average)* *0.6-11(range)*
DTSC Screening Level [2]		*0.36*
Environmental Screening Level [3]		*0.31*

Notes:

Soil samples analyzed by EPA Method 8081A by BC Laboratories, Sacramento, California

mg/kg - milligrams per kilogram

< Constituent was not detected above the laboratory method detection limit.

[1]Kearney Foundation for Soil Science. Background Concentrations of Trace and Major Elements in California Soils. March 1996.

[2]Human Health Risk Assessment Note 3, Table 1. DTSC-Recommended Screening Levels for Soil (Commercial/Industrial, Cancer Endpoint), April 2019

[3]Environmental Screening Level, San Francisco Bay RWQCB, Commercial/Industrial Shallow Soil Exposure, Cancer Risk, January 2019 (Rev. 1)

Table . erbicides in Soil Samples

Sample ID	Sample Date	2,4,5-T	2,4,5-TP (Silvex)	2,4-D	2,4-DB	Bentazon	Dalapon	Dicamba	Dichloroprop	Dinoseb	Pentachlorophenol	Picloram
		micrograms per kilogram (g/kg)										
SH-1	7/5/2019	<1.4	<0.57	<3.2	<07.4	<12	<15	<0.95	<1.7	<1.6	<0.57	<0.73
SH-2		<1.4	<0.57	<3.2	<07.4	<12	<15	<0.95	<1.7	<1.6	<0.57	<0.73
SH-3		<1.4	<0.57	<3.2	<07.4	<12	<15	<0.95	<1.7	<1.6	<0.57	<0.73
SH-4		<1.4	<0.57	<3.2	<07.4	<12	<15	<0.95	<1.7	<1.6	<0.57	<0.73
DTSC Screening Level [1]		*5.3E 06*	*.2E 06*	*.3E 06*	--	*2.5E 0*	*1.6E 0*	*1.6E 0*	--	*5.3E 05*	*.0E 03*	*5. E 0*

Notes:

Soil samples analyzed by EPA Method 8081A by BC Laboratories, Sacramento, California

< Constituent was not detected above the laboratory method detection limit.

-- No regulatory screening level for the constituent.

[1]Human Health Risk Assessment Note 3, Table 1. DTSC-Recommended Screening Levels for Soil (Commercial/Industrial, Cancer Endpoint), April 2019 non-cancer endpoint used where no cancer endpoint.

Table . Or anoc lorine Pes icides in Soil Samples

Subsample ID	Sample ID	Sample Date	Aldrin	alpha-BHC (Lindane)	beta-BHC	gamma-BHC	delta-BHC	Chlordane	4,4 -DDD	4,4 -DDE	4,4 -DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin aldehyde	Heptachlor	Heptachlor epoxide	Methoxychlor	Toxaphene
			micrograms per kilogram (g/kg)																		
S-1	S -1	7/5/2019	<0.087	<0.073	<0.074	<0.046	<0.5	<2.8	**5.9**	**530.0**	**58.0**	**3.4**	<0.073	<0.079	<0.064	<0.031	<0.088	<0.043	<0.06	<0.18	<2.1
S-2																					
S-3	S -2		<0.087	<0.073	<0.074	<0.046	<0.5	<2.8	**6.9**	**670.0**	**84.0**	**7.4**	<0.073	<0.079	<0.064	<0.031	<0.088	<0.043	<0.06	<0.18	<2.1
S-4																					
S-5	S -3		<0.087	<0.073	<0.074	<0.046	<0.5	<2.8	**70.0**	**2500.0**	**320.0**	**30.0**	<0.073	<0.079	<0.064	<0.031	<0.088	<0.043	<0.06	<0.18	<2.1
S-6																					
S-7	S -4		<0.087	<0.073	<0.074	<0.046	<0.5	<2.8	**69.0**	**1200.0**	**240.0**	**9.3**	<0.073	<0.079	<0.064	<0.031	<0.088	<0.043	<0.06	<0.18	<2.1
S-8																					
S-9																					
S-10	S -5		<0.087	<0.073	<0.074	<0.046	<0.5	<2.8	**140.0**	**3600.0**	**480.0**	**31.0**	<0.073	<0.079	<0.064	<0.031	<0.088	<0.043	<0.06	<0.18	<2.1
S-11																					
S-12	S -6		<0.087	<0.073	<0.074	<0.046	<0.5	<2.8	**130.0**	**1800.0**	**390.0**	**38.0**	<0.073	<0.079	<0.064	<0.031	<0.088	<0.043	<0.06	<0.18	<2.1
S-13																					
DTSC Screening Level [1]			*1 0*	*2 0*	*20*	*2000*	--	*6100*	*6200*	*300*	*100*	*3*	*6.0E 06*	--	--	*1.6E 05*	--	*630*	*330*	*2.60E 06*	*1200*
Environmental Screening Level [2]			*150*	*2500*	--	--	--	*2200*	*12000*	*300*	*500*	*160*	*5. E 06*	--	--	*2. E 05*	--	*530*	*2 0*	*. 0E 06*	*2200*

Notes:

Soil samples analyzed by EPA Method 8081A by BC Laboratories, Sacramento, California

< Constituent was not detected above the laboratory method detection limit.

Bold indicates constituent was detected above the laboratory reporting limit.

-- No regulatory screening level for the constituent.

[1]Human Health Risk Assessment Note 3, Table 1. DTSC-Recommended Screening Levels for Soil (Commercial/Industrial, Cancer Endpoint), April 2019 non-cancer endpoint used where no cancer endpoint.

[2]Environmental Screening Level, San Francisco Bay RWQCB, Commercial/Industrial Shallow Soil Exposure, Cancer Risk, January 2019 (Rev. 1) non-cancer hazard used where no value for cancer risk.

Attachment C

Laboratory Analytical Report

Date of Report: 08/01/2019

Jonathan Martin

Dudek Engineering
853 Lincoln Way, #105
Auburn, CA 95603

Client Project:	11799-2.7
BCL Project:	Bowman Soil
BCL Work Order:	1921846
Invoice ID:	B348029, B349425

Enclosed are the results of analyses for samples received by the laboratory on 7/9/2019. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000916378

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Stuart Buttram
Technical Director

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BC LABORATORIES, INC.
19-21846

Chain of Custody Form

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Report To: Client: DUDEK	Project #: 11799-2.7		
Attn: JON MARTIN	Project Name: Bowman Soil		
Street Address: 853 Lincoln Way #105			
City, State, Zip: Auburn, CA 95603	Sampler(s): J. MARTIN		
Phone: 760.415.9058 Fax: –			
Email: jmartin@dudek.com			
Work Order #:			

Comments:
Sample IDs
SH = soil herbicide
SA = soil arsenic
SO = soil OCP

Please refer to the back of this page for completion instructions and method legend.

Sample #	Description	Date Sampled	Time Sampled	EPA 8081 - OCPs	EPA 8151 - Herbicides	EPA 6020 - Arsenic	EPA 3050 - [illegible]	Soil	Sludge	Drinking Water	Ground Water	Waste Water	Other	Notes
SH-1	16 oz glass jar - soil -1	7/4/19	15:05		X			X						
SA-2	-2		15:05			X	X	X						
SO-2	-3		15:10	X				X						
SA-1	-4		15:20			X	X	X						
SO-1	-5		15:30	X				X						
SO-6	-6		15:45	X				X						
SA-4	-7		16:05			X	X	X						
SO-5	-8		16:15	X				X						
SO-3	-9		16:45	X				X						
SH-4	-10		16:50		X			X						
SH-2	-11		17:00		X			X						
SH-3	-12		17:10		X			X						
SA-3	-13		17:20			X	X	X						
SO-4	-14		17:25	X				X						

Result Request **Surcharge: ☒ STD (10 Days) ☐ 5 Day** ☐ 2 Day** ☐ 1 Day**

CHK BY [illegible] DISTRIBUTION [illegible] SUB OUT ☐

Billing ☐ Same as above
Client: DUDEK
Address: 605 3rd St
City: ENCINITAS State CA Zip 92024
Attn: GLENNA McMAHON
P.O. #: 11799-2.7

EDF Required? Geotracker ☐ Yes ☒ No
Send Copy to State of CA? (EDT) ☐ Yes ☒ No

Global ID — (Needed for EDF)
System # — (Needed for EDT)

Relinquished By	Date	Time	Received By	Date	Time
1. JON MARTIN	7.5.19	11:46	1. [signature]	7/5/19	4:43
2. [signature]	7/5/19	12:30	2. [signature] 7-9-19		8:00
3.			3. 7-8-[illegible]		

BC Laboratories, Inc. – 4100 Atlas Ct. – Bakersfield, CA 93308 – 661.327.4911 – Fax: 661.327.1918 – www.bclabs.com

Chain of Custody and Cooler Receipt Form for 1921846 Page 2 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 9-21846

SHIPPING INFORMATION
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐
BC Lab Field Service ☐ Other ☐ (Specify) GSO

SHIPPING CONTAINER
Ice Chest ☐ None ☐ Box ☐
Other ☐ (Specify)

FREE LIQUID
YES ☐ NO ☐
W / S

Refrigerant: Ice ☐ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☐ Comments:

All samples received? Yes ☐ No ☐ All samples containers intact? Yes ☐ No ☐ Description(s) match COC? Yes ☐ No ☐

COC Received ☐ YES ☐ NO

Emissivity: 0.98 Container: Clear Glass Thermometer ID: 208

Temperature: (A) -.1 °C / (C) 1.7 °C

Date/Time 7.9.19 8:00 7.8.19

Analyst Init: JTH

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR	XH	A	A	A	A					
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: JTH Date/Time: 7.9.19 8:59

A = Actual / C = Corrected

7.8.19

Rev 21 05/23/2016

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Chain of Custody and Cooler Receipt Form for 1921846 Page 3 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 2

Submission #: 19-21846

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐	Ice Chest ☐ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☐ Other ☐ (Specify) GSO	Other ☐ (Specify)	W / S

Refrigerant: Ice ☐ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☐ Comments:

All samples received? Yes ☐ No ☐ All samples containers intact? Yes ☐ No ☐ Description(s) match COC? Yes ☐ No ☐

COC Received ☐ YES ☐ NO

Emissivity: 0.98 Container: Clear Glass Thermometer ID: 208 Date/Time 7.8.19 8:00

Temperature: (A) 1.7 °C / (C) 1.7 °C Analyst Init: JTM

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR JTM	A	A	A	A	A	A	A	A	A	A
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: JTM Date/Time: 8:50 7.8.19

A = Actual / C = Corrected

Rev 21 05/23/2016

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7.8.19

Dudek Engineering
853 Lincoln Way, #105
Auburn, CA 95603

Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1921846-01	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 15:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SH-1	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-02	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 15:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SA-2	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-03	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 15:10
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SO-2	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-04	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 15:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SA-1	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-05	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 15:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SO-1	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-06	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 15:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SO-6	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-07	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 16:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SA-4	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil

Dudek Engineering
853 Lincoln Way, #105
Auburn, CA 95603

Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1921846-08	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 16:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SO-5	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-09	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 16:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SO-3	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-10	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 16:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SH-4	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-11	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 17:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SH-2	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-12	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 17:10
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SH-3	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-13	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 17:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SA-3	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil
1921846-14	**COC Number:**	---	**Receive Date:**	07/09/2019 08:00
	Project Number:	---	**Sampling Date:**	07/04/2019 17:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SO-4	**Lab Matrix:**	Solids
	Sampled By:	Jonathan Martin	**Sample Type:**	Soil

Dudek Engineering
853 Lincoln Way, #105
Auburn, CA 95603

Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Chlorinated Herbicides (EPA Method 8151A)

BCL Sample ID: 1921846-01 | **Client Sample Name:** SH-1, 7/4/2019 3:05:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bentazon	ND	mg/kg	0.050	0.012	EPA-8151A	ND		1
2,4-D	ND	mg/kg	0.020	0.0032	EPA-8151A	ND		1
2,4-DB	ND	mg/kg	0.040	0.0074	EPA-8151A	ND		1
Dalapon	ND	mg/kg	0.050	0.015	EPA-8151A	ND		1
Dicamba	ND	mg/kg	0.0020	0.00095	EPA-8151A	ND		1
Dichloroprop	ND	mg/kg	0.020	0.0017	EPA-8151A	ND		1
Dinoseb	ND	mg/kg	0.0070	0.0016	EPA-8151A	ND		1
Pentachlorophenol	ND	mg/kg	0.0020	0.00057	EPA-8151A	ND		1
Picloram	ND	mg/kg	0.0030	0.00073	EPA-8151A	ND		1
2,4,5-T	ND	mg/kg	0.0030	0.0014	EPA-8151A	ND		1
2,4,5-TP (Silvex)	ND	mg/kg	0.0030	0.00057	EPA-8151A	ND		1
2,4-Dichlorophenylacetic acid (Surrogate)	47.5	%	40 - 120 (LCL - UCL)		EPA-8151A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8151A	07/12/19 11:03	07/18/19 07:30	OLH	GC-8	0.997	B051328

Dudek Engineering
853 Lincoln Way, #105
Auburn, CA 95603

Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Total Concentrations (TTLC)

BCL Sample ID: 1921846-02 | **Client Sample Name:** SA-2, 7/4/2019 3:05:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	**3.5**	**mg/kg**	**0.50**	**0.17**	**EPA-6020**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6020	07/09/19 09:30	07/09/19 17:27	AS1	PE-EL2	1	B050434

Dudek Engineering
853 Lincoln Way, #105
Auburn, CA 95603

Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Organochlorine Pesticides (EPA Method 8081A)

BCL Sample ID: 1921846-03 | **Client Sample Name:** SO-2, 7/4/2019 3:10:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.00050	0.000087	EPA-8081A	ND		1
alpha-BHC	ND	mg/kg	0.00050	0.000073	EPA-8081A	ND		1
beta-BHC	ND	mg/kg	0.00050	0.000074	EPA-8081A	ND		1
delta-BHC	ND	mg/kg	0.00050	0.000050	EPA-8081A	ND		1
gamma-BHC (Lindane)	ND	mg/kg	0.00050	0.000046	EPA-8081A	ND		1
Chlordane (Technical)	ND	mg/kg	0.050	0.0028	EPA-8081A	ND		1
4,4'-DDD	**0.0069**	**mg/kg**	**0.00050**	**0.000099**	**EPA-8081A**	ND		1
4,4'-DDE	**0.67**	**mg/kg**	**0.050**	**0.0071**	**EPA-8081A**	ND	**A01**	2
4,4'-DDT	**0.084**	**mg/kg**	**0.050**	**0.0074**	**EPA-8081A**	ND	**A01**	2
Dieldrin	**0.0074**	**mg/kg**	**0.00050**	**0.000083**	**EPA-8081A**	ND		1
Endosulfan I	ND	mg/kg	0.00050	0.000073	EPA-8081A	ND		1
Endosulfan II	ND	mg/kg	0.00050	0.000079	EPA-8081A	ND		1
Endosulfan sulfate	ND	mg/kg	0.00050	0.000064	EPA-8081A	ND		1
Endrin	ND	mg/kg	0.00050	0.000031	EPA-8081A	ND		1
Endrin aldehyde	ND	mg/kg	0.00050	0.000088	EPA-8081A	ND		1
Heptachlor	ND	mg/kg	0.00050	0.000043	EPA-8081A	ND		1
Heptachlor epoxide	ND	mg/kg	0.00050	0.000060	EPA-8081A	ND		1
Methoxychlor	ND	mg/kg	0.00050	0.00018	EPA-8081A	ND		1
Toxaphene	ND	mg/kg	0.050	0.0021	EPA-8081A	ND		1
TCMX (Surrogate)	55.6	%	20 - 130 (LCL - UCL)		EPA-8081A			1
Decachlorobiphenyl (Surrogate)	55.9	%	40 - 130 (LCL - UCL)		EPA-8081A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081A	07/10/19 13:30	07/15/19 15:21	HKS	GC-17	1.003	B051200
2	EPA-8081A	07/10/19 13:30	07/16/19 09:48	HKS	GC-17	100.33	B051200

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Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Total Concentrations (TTLC)

BCL Sample ID: 1921846-04 | **Client Sample Name:** SA-1, 7/4/2019 3:20:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	**8.0**	**mg/kg**	**0.50**	**0.17**	**EPA-6020**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6020	07/09/19 09:30	07/09/19 17:29	AS1	PE-EL2	0.962	B050434

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Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Organochlorine Pesticides (EPA Method 8081A)

BCL Sample ID: 1921846-05 | **Client Sample Name:** SO-1, 7/4/2019 3:30:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.00050	0.000087	EPA-8081A	ND		1
alpha-BHC	ND	mg/kg	0.00050	0.000073	EPA-8081A	ND		1
beta-BHC	ND	mg/kg	0.00050	0.000074	EPA-8081A	ND		1
delta-BHC	ND	mg/kg	0.00050	0.000050	EPA-8081A	ND		1
gamma-BHC (Lindane)	ND	mg/kg	0.00050	0.000046	EPA-8081A	ND		1
Chlordane (Technical)	ND	mg/kg	0.050	0.0028	EPA-8081A	ND		1
4,4'-DDD	**0.0059**	**mg/kg**	**0.00050**	**0.000099**	**EPA-8081A**	ND		1
4,4'-DDE	**0.53**	**mg/kg**	**0.050**	**0.0071**	**EPA-8081A**	ND	**A01**	2
4,4'-DDT	**0.058**	**mg/kg**	**0.050**	**0.0074**	**EPA-8081A**	ND	**A01**	2
Dieldrin	**0.0034**	**mg/kg**	**0.00050**	**0.000083**	**EPA-8081A**	ND		1
Endosulfan I	ND	mg/kg	0.00050	0.000073	EPA-8081A	ND		1
Endosulfan II	ND	mg/kg	0.00050	0.000079	EPA-8081A	ND		1
Endosulfan sulfate	ND	mg/kg	0.00050	0.000064	EPA-8081A	ND		1
Endrin	ND	mg/kg	0.00050	0.000031	EPA-8081A	ND		1
Endrin aldehyde	ND	mg/kg	0.00050	0.000088	EPA-8081A	ND		1
Heptachlor	ND	mg/kg	0.00050	0.000043	EPA-8081A	ND		1
Heptachlor epoxide	ND	mg/kg	0.00050	0.000060	EPA-8081A	ND		1
Methoxychlor	ND	mg/kg	0.00050	0.00018	EPA-8081A	ND		1
Toxaphene	ND	mg/kg	0.050	0.0021	EPA-8081A	ND		1
TCMX (Surrogate)	80.9	%	20 - 130 (LCL - UCL)		EPA-8081A			1
Decachlorobiphenyl (Surrogate)	60.8	%	40 - 130 (LCL - UCL)		EPA-8081A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081A	07/10/19 13:30	07/15/19 16:27	HKS	GC-17	1.003	B051200
2	EPA-8081A	07/10/19 13:30	07/16/19 10:21	HKS	GC-17	100.33	B051200

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Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Organochlorine Pesticides (EPA Method 8081A)

BCL Sample ID: 1921846-06 | **Client Sample Name:** SO-6, 7/4/2019 3:45:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.050	0.0087	EPA-8081A	ND	A01	1
alpha-BHC	ND	mg/kg	0.050	0.0073	EPA-8081A	ND	A01	1
beta-BHC	ND	mg/kg	0.050	0.0074	EPA-8081A	ND	A01	1
delta-BHC	ND	mg/kg	0.050	0.0050	EPA-8081A	ND	A01	1
gamma-BHC (Lindane)	ND	mg/kg	0.050	0.0046	EPA-8081A	ND	A01	1
Chlordane (Technical)	ND	mg/kg	5.0	0.28	EPA-8081A	ND	A01	1
4,4'-DDD	**0.13**	**mg/kg**	**0.050**	**0.0099**	**EPA-8081A**	ND	**A01**	1
4,4'-DDE	**1.8**	**mg/kg**	**0.25**	**0.036**	**EPA-8081A**	ND	**A01**	2
4,4'-DDT	**0.39**	**mg/kg**	**0.050**	**0.0074**	**EPA-8081A**	ND	**A01**	1
Dieldrin	**0.038**	**mg/kg**	**0.050**	**0.0083**	**EPA-8081A**	ND	**J,A01**	1
Endosulfan I	ND	mg/kg	0.050	0.0073	EPA-8081A	ND	A01	1
Endosulfan II	ND	mg/kg	0.050	0.0079	EPA-8081A	ND	A01	1
Endosulfan sulfate	ND	mg/kg	0.050	0.0064	EPA-8081A	ND	A01	1
Endrin	ND	mg/kg	0.050	0.0031	EPA-8081A	ND	A01	1
Endrin aldehyde	ND	mg/kg	0.050	0.0088	EPA-8081A	ND	A01	1
Heptachlor	ND	mg/kg	0.050	0.0043	EPA-8081A	ND	A01	1
Heptachlor epoxide	ND	mg/kg	0.050	0.0060	EPA-8081A	ND	A01	1
Methoxychlor	ND	mg/kg	0.050	0.018	EPA-8081A	ND	A01	1
Toxaphene	ND	mg/kg	5.0	0.21	EPA-8081A	ND	A01	1
TCMX (Surrogate)	81.3	%	20 - 130 (LCL - UCL)		EPA-8081A		A01	1
Decachlorobiphenyl (Surrogate)	121	%	40 - 130 (LCL - UCL)		EPA-8081A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081A	07/10/19 13:30	07/16/19 10:54	HKS	GC-17	100.67	B051200
2	EPA-8081A	07/10/19 13:30	07/16/19 11:11	HKS	GC-17	503.36	B051200

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Project Number: 11799-2.7
Project Manager: Jonathan Martin

Total Concentrations (TTLC)

BCL Sample ID: 1921846-07 | **Client Sample Name:** SA-4, 7/4/2019 4:05:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	**2.1**	**mg/kg**	**0.50**	**0.17**	**EPA-6020**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6020	07/09/19 09:30	07/09/19 17:08	AS1	PE-EL2	1	B050434

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Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Organochlorine Pesticides (EPA Method 8081A)

BCL Sample ID: 1921846-08 | **Client Sample Name:** SO-5, 7/4/2019 4:15:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.050	0.0087	EPA-8081A	ND	A01	1
alpha-BHC	ND	mg/kg	0.050	0.0073	EPA-8081A	ND	A01	1
beta-BHC	ND	mg/kg	0.050	0.0074	EPA-8081A	ND	A01	1
delta-BHC	ND	mg/kg	0.050	0.0050	EPA-8081A	ND	A01	1
gamma-BHC (Lindane)	ND	mg/kg	0.050	0.0046	EPA-8081A	ND	A01	1
Chlordane (Technical)	ND	mg/kg	5.0	0.28	EPA-8081A	ND	A01	1
4,4'-DDD	**0.14**	**mg/kg**	**0.050**	**0.0099**	**EPA-8081A**	ND	**A01**	1
4,4'-DDE	**3.6**	**mg/kg**	**0.25**	**0.036**	**EPA-8081A**	ND	**A01**	2
4,4'-DDT	**0.48**	**mg/kg**	**0.050**	**0.0074**	**EPA-8081A**	ND	**A01**	1
Dieldrin	**0.031**	**mg/kg**	**0.050**	**0.0083**	**EPA-8081A**	ND	**J,A01**	1
Endosulfan I	ND	mg/kg	0.050	0.0073	EPA-8081A	ND	A01	1
Endosulfan II	ND	mg/kg	0.050	0.0079	EPA-8081A	ND	A01	1
Endosulfan sulfate	ND	mg/kg	0.050	0.0064	EPA-8081A	ND	A01	1
Endrin	ND	mg/kg	0.050	0.0031	EPA-8081A	ND	A01	1
Endrin aldehyde	ND	mg/kg	0.050	0.0088	EPA-8081A	ND	A01	1
Heptachlor	ND	mg/kg	0.050	0.0043	EPA-8081A	ND	A01	1
Heptachlor epoxide	ND	mg/kg	0.050	0.0060	EPA-8081A	ND	A01	1
Methoxychlor	ND	mg/kg	0.050	0.018	EPA-8081A	ND	A01	1
Toxaphene	ND	mg/kg	5.0	0.21	EPA-8081A	ND	A01	1
TCMX (Surrogate)	76.3	%	20 - 130 (LCL - UCL)		EPA-8081A		A01	1
Decachlorobiphenyl (Surrogate)	109	%	40 - 130 (LCL - UCL)		EPA-8081A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081A	07/10/19 13:30	07/16/19 11:27	HKS	GC-17	101.35	B051200
2	EPA-8081A	07/10/19 13:30	07/16/19 11:44	HKS	GC-17	506.76	B051200

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Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Organochlorine Pesticides (EPA Method 8081A)

BCL Sample ID: 1921846-09 | **Client Sample Name:** SO-3, 7/4/2019 4:45:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.0050	0.00087	EPA-8081A	ND	A01	1
alpha-BHC	ND	mg/kg	0.0050	0.00073	EPA-8081A	ND	A01	1
beta-BHC	ND	mg/kg	0.0050	0.00074	EPA-8081A	ND	A01	1
delta-BHC	ND	mg/kg	0.0050	0.00050	EPA-8081A	ND	A01	1
gamma-BHC (Lindane)	ND	mg/kg	0.0050	0.00046	EPA-8081A	ND	A01	1
Chlordane (Technical)	ND	mg/kg	0.50	0.028	EPA-8081A	ND	A01	1
4,4'-DDD	**0.070**	**mg/kg**	**0.0050**	**0.00099**	**EPA-8081A**	ND	**A01**	1
4,4'-DDE	**2.5**	**mg/kg**	**0.25**	**0.036**	**EPA-8081A**	ND	**A01**	2
4,4'-DDT	**0.32**	**mg/kg**	**0.25**	**0.037**	**EPA-8081A**	ND	**A01**	2
Dieldrin	**0.030**	**mg/kg**	**0.0050**	**0.00083**	**EPA-8081A**	ND	**A01**	1
Endosulfan I	ND	mg/kg	0.0050	0.00073	EPA-8081A	ND	A01	1
Endosulfan II	ND	mg/kg	0.0050	0.00079	EPA-8081A	ND	A01	1
Endosulfan sulfate	ND	mg/kg	0.0050	0.00064	EPA-8081A	ND	A01	1
Endrin	ND	mg/kg	0.0050	0.00031	EPA-8081A	ND	A01	1
Endrin aldehyde	ND	mg/kg	0.0050	0.00088	EPA-8081A	ND	A01	1
Heptachlor	ND	mg/kg	0.0050	0.00043	EPA-8081A	ND	A01	1
Heptachlor epoxide	ND	mg/kg	0.0050	0.00060	EPA-8081A	ND	A01	1
Methoxychlor	ND	mg/kg	0.0050	0.0018	EPA-8081A	ND	A01	1
Toxaphene	ND	mg/kg	0.50	0.021	EPA-8081A	ND	A01	1
TCMX (Surrogate)	62.9	%	20 - 130 (LCL - UCL)		EPA-8081A		A01	1
Decachlorobiphenyl (Surrogate)	86.1	%	40 - 130 (LCL - UCL)		EPA-8081A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081A	07/10/19 13:30	07/16/19 12:17	HKS	GC-17	10.169	B051200
2	EPA-8081A	07/10/19 13:30	07/16/19 13:39	HKS	GC-17	508.47	B051200

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Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Chlorinated Herbicides (EPA Method 8151A)

BCL Sample ID: 1921846-10 | **Client Sample Name:** SH-4, 7/4/2019 4:50:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bentazon	ND	mg/kg	0.050	0.012	EPA-8151A	ND		1
2,4-D	ND	mg/kg	0.020	0.0032	EPA-8151A	ND		1
2,4-DB	ND	mg/kg	0.040	0.0074	EPA-8151A	ND		1
Dalapon	ND	mg/kg	0.050	0.015	EPA-8151A	ND		1
Dicamba	ND	mg/kg	0.0020	0.00095	EPA-8151A	ND		1
Dichloroprop	ND	mg/kg	0.020	0.0017	EPA-8151A	ND		1
Dinoseb	ND	mg/kg	0.0070	0.0016	EPA-8151A	ND		1
Pentachlorophenol	ND	mg/kg	0.0020	0.00057	EPA-8151A	ND		1
Picloram	ND	mg/kg	0.0030	0.00073	EPA-8151A	ND		1
2,4,5-T	ND	mg/kg	0.0030	0.0014	EPA-8151A	ND		1
2,4,5-TP (Silvex)	ND	mg/kg	0.0030	0.00057	EPA-8151A	ND		1
2,4-Dichlorophenylacetic acid (Surrogate)	46.8	%	40 - 120 (LCL - UCL)		EPA-8151A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8151A	07/12/19 11:03	07/18/19 09:56	OLH	GC-8	0.993	B051328

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Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Chlorinated Herbicides (EPA Method 8151A)

BCL Sample ID: 1921846-11 | **Client Sample Name:** SH-2, 7/4/2019 5:00:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bentazon	ND	mg/kg	0.050	0.012	EPA-8151A	ND		1
2,4-D	ND	mg/kg	0.020	0.0032	EPA-8151A	ND		1
2,4-DB	ND	mg/kg	0.040	0.0074	EPA-8151A	ND		1
Dalapon	ND	mg/kg	0.050	0.015	EPA-8151A	ND		1
Dicamba	ND	mg/kg	0.0020	0.00095	EPA-8151A	ND		1
Dichloroprop	ND	mg/kg	0.020	0.0017	EPA-8151A	ND		1
Dinoseb	ND	mg/kg	0.0070	0.0016	EPA-8151A	ND		1
Pentachlorophenol	ND	mg/kg	0.0020	0.00057	EPA-8151A	ND		1
Picloram	ND	mg/kg	0.0030	0.00073	EPA-8151A	ND		1
2,4,5-T	ND	mg/kg	0.0030	0.0014	EPA-8151A	ND		1
2,4,5-TP (Silvex)	ND	mg/kg	0.0030	0.00057	EPA-8151A	ND		1
2,4-Dichlorophenylacetic acid (Surrogate)	48.2	%	40 - 120 (LCL - UCL)		EPA-8151A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8151A	07/12/19 11:03	07/18/19 10:17	OLH	GC-8	1.003	B051328

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Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Chlorinated Herbicides (EPA Method 8151A)

BCL Sample ID: 1921846-12 | **Client Sample Name:** SH-3, 7/4/2019 5:10:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Bentazon	ND	mg/kg	0.050	0.012	EPA-8151A	ND		1
2,4-D	ND	mg/kg	0.020	0.0032	EPA-8151A	ND		1
2,4-DB	ND	mg/kg	0.040	0.0074	EPA-8151A	ND		1
Dalapon	ND	mg/kg	0.050	0.015	EPA-8151A	ND		1
Dicamba	ND	mg/kg	0.0020	0.00095	EPA-8151A	ND		1
Dichloroprop	ND	mg/kg	0.020	0.0017	EPA-8151A	ND		1
Dinoseb	ND	mg/kg	0.0070	0.0016	EPA-8151A	ND		1
Pentachlorophenol	ND	mg/kg	0.0020	0.00057	EPA-8151A	ND		1
Picloram	ND	mg/kg	0.0030	0.00073	EPA-8151A	ND		1
2,4,5-T	ND	mg/kg	0.0030	0.0014	EPA-8151A	ND		1
2,4,5-TP (Silvex)	ND	mg/kg	0.0030	0.00057	EPA-8151A	ND		1
2,4-Dichlorophenylacetic acid (Surrogate)	39.2	%	40 - 120 (LCL - UCL)		EPA-8151A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8151A	07/12/19 11:03	07/18/19 10:38	OLH	GC-8	0.987	B051328

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Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Total Concentrations (TTLC)

BCL Sample ID: 1921846-13 | **Client Sample Name:** SA-3, 7/4/2019 5:20:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Arsenic	**3.4**	**mg/kg**	**0.50**	**0.17**	**EPA-6020**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-6020	07/09/19 09:30	07/09/19 17:30	AS1	PE-EL2	0.990	B050434

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Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Organochlorine Pesticides (EPA Method 8081A)

BCL Sample ID: 1921846-14 | **Client Sample Name:** SO-4, 7/4/2019 5:25:00PM, Jonathan Martin

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.00050	0.000087	EPA-8081A	ND		1
alpha-BHC	ND	mg/kg	0.00050	0.000073	EPA-8081A	ND		1
beta-BHC	ND	mg/kg	0.00050	0.000074	EPA-8081A	ND		1
delta-BHC	ND	mg/kg	0.00050	0.000050	EPA-8081A	ND		1
gamma-BHC (Lindane)	ND	mg/kg	0.00050	0.000046	EPA-8081A	ND		1
Chlordane (Technical)	ND	mg/kg	0.050	0.0028	EPA-8081A	ND		1
4,4'-DDD	**0.069**	**mg/kg**	**0.050**	**0.0099**	**EPA-8081A**	ND	**A01**	2
4,4'-DDE	**1.2**	**mg/kg**	**0.050**	**0.0071**	**EPA-8081A**	ND	**A01**	2
4,4'-DDT	**0.24**	**mg/kg**	**0.050**	**0.0074**	**EPA-8081A**	ND	**A01**	2
Dieldrin	**0.0093**	**mg/kg**	**0.00050**	**0.000083**	**EPA-8081A**	ND		1
Endosulfan I	ND	mg/kg	0.00050	0.000073	EPA-8081A	ND		1
Endosulfan II	ND	mg/kg	0.00050	0.000079	EPA-8081A	ND		1
Endosulfan sulfate	ND	mg/kg	0.00050	0.000064	EPA-8081A	ND		1
Endrin	ND	mg/kg	0.00050	0.000031	EPA-8081A	ND		1
Endrin aldehyde	ND	mg/kg	0.00050	0.000088	EPA-8081A	ND		1
Heptachlor	ND	mg/kg	0.00050	0.000043	EPA-8081A	ND		1
Heptachlor epoxide	ND	mg/kg	0.00050	0.000060	EPA-8081A	ND		1
Methoxychlor	ND	mg/kg	0.00050	0.00018	EPA-8081A	ND		1
Toxaphene	ND	mg/kg	0.050	0.0021	EPA-8081A	ND		1
TCMX (Surrogate)	62.5	%	20 - 130 (LCL - UCL)		EPA-8081A			1
Decachlorobiphenyl (Surrogate)	54.4	%	40 - 130 (LCL - UCL)		EPA-8081A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081A	07/10/19 13:30	07/15/19 17:33	HKS	GC-17	1.017	B051200
2	EPA-8081A	07/10/19 13:30	07/16/19 14:12	HKS	GC-17	101.69	B051200

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853 Lincoln Way, #105
Auburn, CA 95603

Reported: 08/01/2019 17:12
Project: Bowman Soil
Project Number: 11799-2.7
Project Manager: Jonathan Martin

Organochlorine Pesticides (EPA Method 8081A)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B051200						
Aldrin	B051200-BLK1	ND	mg/kg	0.00050	0.000087	
alpha-BHC	B051200-BLK1	ND	mg/kg	0.00050	0.000073	
beta-BHC	B051200-BLK1	ND	mg/kg	0.00050	0.000074	
delta-BHC	B051200-BLK1	ND	mg/kg	0.00050	0.000050	
gamma-BHC (Lindane)	B051200-BLK1	ND	mg/kg	0.00050	0.000046	
Chlordane (Technical)	B051200-BLK1	ND	mg/kg	0.050	0.0028	
4,4'-DDD	B051200-BLK1	ND	mg/kg	0.00050	0.000099	
4,4'-DDE	B051200-BLK1	ND	mg/kg	0.00050	0.000071	
4,4'-DDT	B051200-BLK1	ND	mg/kg	0.00050	0.000074	
Dieldrin	B051200-BLK1	ND	mg/kg	0.00050	0.000083	
Endosulfan I	B051200-BLK1	ND	mg/kg	0.00050	0.000073	
Endosulfan II	B051200-BLK1	ND	mg/kg	0.00050	0.000079	
Endosulfan sulfate	B051200-BLK1	ND	mg/kg	0.00050	0.000064	
Endrin	B051200-BLK1	ND	mg/kg	0.00050	0.000031	
Endrin aldehyde	B051200-BLK1	ND	mg/kg	0.00050	0.000088	
Heptachlor	B051200-BLK1	ND	mg/kg	0.00050	0.000043	
Heptachlor epoxide	B051200-BLK1	ND	mg/kg	0.00050	0.000060	
Methoxychlor	B051200-BLK1	ND	mg/kg	0.00050	0.00018	
Toxaphene	B051200-BLK1	ND	mg/kg	0.050	0.0021	
TCMX (Surrogate)	**B051200-BLK1**	**69.7**	%	**20 - 130 (LCL - UCL)**		
Decachlorobiphenyl (Surrogate)	**B051200-BLK1**	**89.5**	%	**40 - 130 (LCL - UCL)**		

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Organochlorine Pesticides (EPA Method 8081A)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: B051200										
Aldrin	B051200-BS1	LCS	0.0046957	0.0049669	mg/kg	94.5		70 - 130		
gamma-BHC (Lindane)	B051200-BS1	LCS	0.0043394	0.0049669	mg/kg	87.4		60 - 140		
4,4'-DDT	B051200-BS1	LCS	0.0050116	0.0049669	mg/kg	101		60 - 140		
Dieldrin	B051200-BS1	LCS	0.0049735	0.0049669	mg/kg	100		70 - 130		
Endrin	B051200-BS1	LCS	0.0048305	0.0049669	mg/kg	97.3		60 - 140		
Heptachlor	B051200-BS1	LCS	0.0048238	0.0049669	mg/kg	97.1		60 - 140		
TCMX (Surrogate)	B051200-BS1	LCS	0.0080136	0.0099338	mg/kg	80.7		20 - 130		
Decachlorobiphenyl (Surrogate)	B051200-BS1	LCS	0.019696	0.019868	mg/kg	99.1		40 - 130		

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Organochlorine Pesticides (EPA Method 8081A)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B051200	Used client sample: N										
Aldrin	MS	1921619-01	ND	0.0034275	0.0050336	mg/kg		68.1		50 - 140	
	MSD	1921619-01	ND	0.0034628	0.0050336	mg/kg	1.0	68.8	30	50 - 140	
gamma-BHC (Lindane)	MS	1921619-01	ND	0.0034832	0.0050336	mg/kg		69.2		50 - 140	
	MSD	1921619-01	ND	0.0033819	0.0050336	mg/kg	3.0	67.2	30	50 - 140	
4,4'-DDT	MS	1921619-01	0.00019492	0.0038638	0.0050336	mg/kg		72.9		50 - 140	
	MSD	1921619-01	0.00019492	0.0041765	0.0050336	mg/kg	7.8	79.1	30	50 - 140	
Dieldrin	MS	1921619-01	ND	0.0035668	0.0050336	mg/kg		70.9		40 - 140	
	MSD	1921619-01	ND	0.0037540	0.0050336	mg/kg	5.1	74.6	30	40 - 140	
Endrin	MS	1921619-01	ND	0.0039124	0.0050336	mg/kg		77.7		50 - 150	
	MSD	1921619-01	ND	0.0041728	0.0050336	mg/kg	6.4	82.9	30	50 - 150	
Heptachlor	MS	1921619-01	ND	0.0038440	0.0050336	mg/kg		76.4		60 - 140	
	MSD	1921619-01	ND	0.0037772	0.0050336	mg/kg	1.8	75.0	30	60 - 140	
TCMX (Surrogate)	MS	1921619-01	ND	0.0089668	0.010067	mg/kg		89.1		20 - 130	
	MSD	1921619-01	ND	0.0082252	0.010067	mg/kg	8.6	81.7		20 - 130	
Decachlorobiphenyl (Surrogate)	MS	1921619-01	ND	0.014918	0.020134	mg/kg		74.1		40 - 130	
	MSD	1921619-01	ND	0.015597	0.020134	mg/kg	4.4	77.5		40 - 130	

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Chlorinated Herbicides (EPA Method 8151A)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B051328						
Bentazon	B051328-BLK1	ND	mg/kg	0.050	0.012	
2,4-D	B051328-BLK1	ND	mg/kg	0.020	0.0032	
2,4-DB	B051328-BLK1	ND	mg/kg	0.040	0.0074	
Dalapon	B051328-BLK1	ND	mg/kg	0.050	0.015	
Dicamba	B051328-BLK1	ND	mg/kg	0.0020	0.00095	
Dichloroprop	B051328-BLK1	ND	mg/kg	0.020	0.0017	
Dinoseb	B051328-BLK1	ND	mg/kg	0.0070	0.0016	
Pentachlorophenol	B051328-BLK1	ND	mg/kg	0.0020	0.00057	
Picloram	B051328-BLK1	ND	mg/kg	0.0030	0.00073	
2,4,5-T	B051328-BLK1	ND	mg/kg	0.0030	0.0014	
2,4,5-TP (Silvex)	B051328-BLK1	ND	mg/kg	0.0030	0.00057	
2,4-Dichlorophenylacetic acid (Surrogate)	**B051328-BLK1**	**70.5**	%	**40 - 120 (LCL - UCL)**		

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Chlorinated Herbicides (EPA Method 8151A)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: B051328										
2,4-D	B051328-BS1	LCS	0.055593	0.081356	mg/kg	68.3		50 - 120		
2,4-DB	B051328-BS1	LCS	0.12203	0.18305	mg/kg	66.7		50 - 120		
Dicamba	B051328-BS1	LCS	0.019661	0.020339	mg/kg	96.7		50 - 120		
Dichloroprop	B051328-BS1	LCS	0.058305	0.081356	mg/kg	71.7		50 - 120		
Dinoseb	B051328-BS1	LCS	0.026441	0.040678	mg/kg	65.0		50 - 120		
2,4,5-T	B051328-BS1	LCS	0.012881	0.020339	mg/kg	63.3		30 - 120		
2,4,5-TP (Silvex)	B051328-BS1	LCS	0.012881	0.020339	mg/kg	63.3		50 - 120		
2,4-Dichlorophenylacetic acid (Surrogate)	B051328-BS1	LCS	0.089831	0.13559	mg/kg	66.3		40 - 120		

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Chlorinated Herbicides (EPA Method 8151A)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B051328	Used client sample: Y - Description: SH-4, 07/04/2019 16:50										
2,4-D	MS	**1921846-10**	**ND**	**0.023355**	**0.078947**	**mg/kg**		**29.6**		**40 - 120**	**Q03**
	MSD	**1921846-10**	**ND**	**0.026441**	**0.081356**	**mg/kg**	**12.4**	**32.5**	**30**	**40 - 120**	**Q03**
2,4-DB	MS	**1921846-10**	**ND**	**0.079276**	**0.17763**	**mg/kg**		**44.6**		**50 - 120**	**Q03**
	MSD	**1921846-10**	**ND**	**0.087458**	**0.18305**	**mg/kg**	**9.8**	**47.8**	**30**	**50 - 120**	**Q03**
Dicamba	MS	**1921846-10**	**ND**	**0.0078947**	**0.019737**	**mg/kg**		**40.0**		**50 - 120**	**Q03**
	MSD	**1921846-10**	**ND**	**0.0084746**	**0.020339**	**mg/kg**	**7.1**	**41.7**	**30**	**50 - 120**	**Q03**
Dichloroprop	MS	1921846-10	ND	0.032237	0.078947	mg/kg		40.8		40 - 120	
	MSD	1921846-10	ND	0.036271	0.081356	mg/kg	11.8	44.6	30	40 - 120	
Dinoseb	MS	1921846-10	ND	0.016447	0.039474	mg/kg		41.7		40 - 130	
	MSD	1921846-10	ND	0.016949	0.040678	mg/kg	3.0	41.7	30	40 - 130	
2,4,5-T	MS	**1921846-10**	**ND**	**0.0052632**	**0.019737**	**mg/kg**		**26.7**		**30 - 120**	
	MSD	**1921846-10**	**ND**	**0.0061017**	**0.020339**	**mg/kg**	**14.8**	**30.0**	**30**	**30 - 120**	
2,4,5-TP (Silvex)	MS	**1921846-10**	**ND**	**0.0069079**	**0.019737**	**mg/kg**		**35.0**		**40 - 120**	
	MSD	**1921846-10**	**ND**	**0.0077966**	**0.020339**	**mg/kg**	**12.1**	**38.3**	**30**	**40 - 120**	
2,4-Dichlorophenylacetic acid (Surrogate	MS	1921846-10	ND	0.064474	0.13158	mg/kg		49.0		40 - 120	
	MSD	1921846-10	ND	0.069492	0.13559	mg/kg	7.5	51.3		40 - 120	

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Total Concentrations (TTLC)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: B050434						
Arsenic	B050434-BLK1	ND	mg/kg	0.50	0.17	

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Total Concentrations (TTLC)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: B050434										
Arsenic	B050434-BS1	LCS	20.401	20.000	mg/kg	102		75 - 125		

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Total Concentrations (TTLC)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: B050434	Used client sample: Y - Description: SA-4, 07/04/2019 16:05										
Arsenic	DUP	1921846-07	2.1385	2.0415		mg/kg	4.6		20		
	MS	1921846-07	2.1385	24.416	20.000	mg/kg		111		75 - 125	
	MSD	1921846-07	2.1385	24.354	20.000	mg/kg	0.3	111	20	75 - 125	

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Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.
Q03	Matrix spike recovery(s) was(were) not within the control limits.