

**STAFF REPORT TO AMADOR COUNTY AIRPORT LAND USE COMMISSION
FOR MEETING OF TUESDAY, NOVEMBER 14, 2017**

ITEM NO. 1 - Review and possible compatibility determination relative to the proposed Tanner Backwash Recycling Project which proposes the installation of two 35' high steel tanks and associated pumping and piping facilities for the purpose of recycling treatment plant backwash wastewater.

Applicant: Amador Water Agency

Location: On the south side of Ridge Rd. about ¾ mile east of Hwy 49 just southwest of the existing AWA Tanner Water Treatment Plant.

- A. Background.** To remain in compliance with existing regulations by eliminating offsite discharge of backwash water the Amador Water Agency (AWA) is proposing to construct two new steel storage reservoirs and associated pumping and piping facilities adjacent to their existing water treatment facility south of Ridge Rd. (see attached information). Construction is expected to commence in early 2018, after the Update to the ALUCP is adopted.

The proposed storage reservoirs (tanks enclosed with metal roof systems) will be no taller than 35' above ground level with an estimated diameter of 50' to 60' (approx. 220,000 gals each). The proposed location for the tanks lies in Overflight Zone 3 of the 1990 (current) Airport Land Use Compatibility Plan (ALUCP) and is in Safety Zone 6 of the proposed 2017 update to the ALUCP that is currently underway. Both the 1990 ALUCP and the 2017 Updated ALUCP contain the same Airspace Protection Zones for imaginary surfaces (i.e., height limitations) which establish criteria for evaluating potential obstructions that may constitute hazards to aircraft.

AWA has submitted a Notice of Proposed Construction or Alteration to the FAA (attached) for review and approval. The information submitted in that application shows the proposed tanks and pump station at the proposed location will not be of a height so as to penetrate the 14 CFR Part 77 Imaginary Surfaces as contained in both the 1990 ALUCP and the proposed 2017 Update to the ALUCP.

The AWA also plotted the location of the proposed project under the proposed 2017 ALUCP land use compatibility zones. The proposed tank site and pump station are in Zone 6 with the project piping traversing into Zone 3. The proposed Land Use Compatibility Table identifies Utilities as a "compatible" use in Zones 2 through 6 subject to ALUC review if greater than 200 feet above field elevation (AFE) and a finding the project does not to present a Wildlife Hazard Attractant

- B. ALUC Action:** The ALUCP needs to review the information submitted and determine whether the proposed project is compatible with the Westover Field airspace protection zones for imaginary surfaces (height limits), the Land Use Compatibility Table, and the wildlife hazard attractant policies. Findings supporting the action of the Commission should be adopted.
- C. Staff Recommendations:** Based upon the information provided in the FAA Notice of Proposed Construction or Alteration, the project description, and both the 1990 and 2017 ALUCPs the following findings and conditions are provided for the Commission's consideration.

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Recommended findings are as follows:

1. The proposed project consisting of 2 enclosed tanks with a metal roofing system does not constitute a wildlife hazard attractant;
2. The proposed 35' high tanks will be at a maximum elevation of approximately 1735' msl which is approximately 55' AFE (above field elevation) and which does not penetrate the imaginary surfaces maximum height limit for the project site; and
3. The proposed project consisting of two 35' high tanks with a pump station and associated piping system for the Amador Water Agency Tanner Backwash Recycling Project is a compatible land use (Utilities) for Overflight Zone 3 of the 1990 ALUCP and Safety Zones 3 and 6 of the proposed 2017 ALUCP Update, subject to the above two findings.

Recommended Conditions are:

4. Obtain FAA approval of Notice of Proposed Construction or Alteration pursuant to 14 CFR Part 77.
5. Construction of project shall be substantially the same as proposed. Any substantial change will require resubmittal to the ALUC.



A Public Agency 12800 RIDGE ROAD, SUTTER CREEK, CA 95685 • (209) 223-3018 Fax: (209) 257-5267

October 12, 2017

**Subject: Airport Land Use Commission Application
Amador Water Agency
Tanner Backwash Recycling Project**

RECEIVED

OCT 13 2017

**AMADOR COUNTY
PLANNING DEPARTMENT**

Dear Susan Grijalva,

This Document presents the Airport Land Use Commission Application supporting the development of Amador Water Agency's proposed Tanner Backwash Recycling Project. This application includes a project description, a map of the proposed facilities within airport safety zones, a map of the proposed facilities over existing topography, and a preliminary profile presenting the extent of encroachment of the proposed facilities towards the Airspace Protection Zone Surface.

If you have any question or desire any additional information, please do not hesitate to contact Karl Brustad at (916) 608-2212 x113.

Sincerely,

Damon Wyckoff
Operations Manager

Enclosures: Project Description
Project Location Figure
Preliminary Site Plan
Preliminary Profile

**Tanner Backwash Recycling Project
Amador Water Agency
October 12, 2017**

RECEIVED

OCT 13 2017

**AMADOR COUNTY
PLANNING DEPARTMENT**

Project Description:

The Amador Water Agency (AWA) is proposing to construct two new welded steel storage reservoirs and associated pumping and piping facilities at the southern limits of its parcel for the purpose of recycling treatment plant backwash wastewater. The proposed Project will eliminate offsite discharge of backwash water. The Project is a priority for AWA and is needed to allow the Tanner Water Treatment Plant (WTP) to remain in compliance with existing regulations.

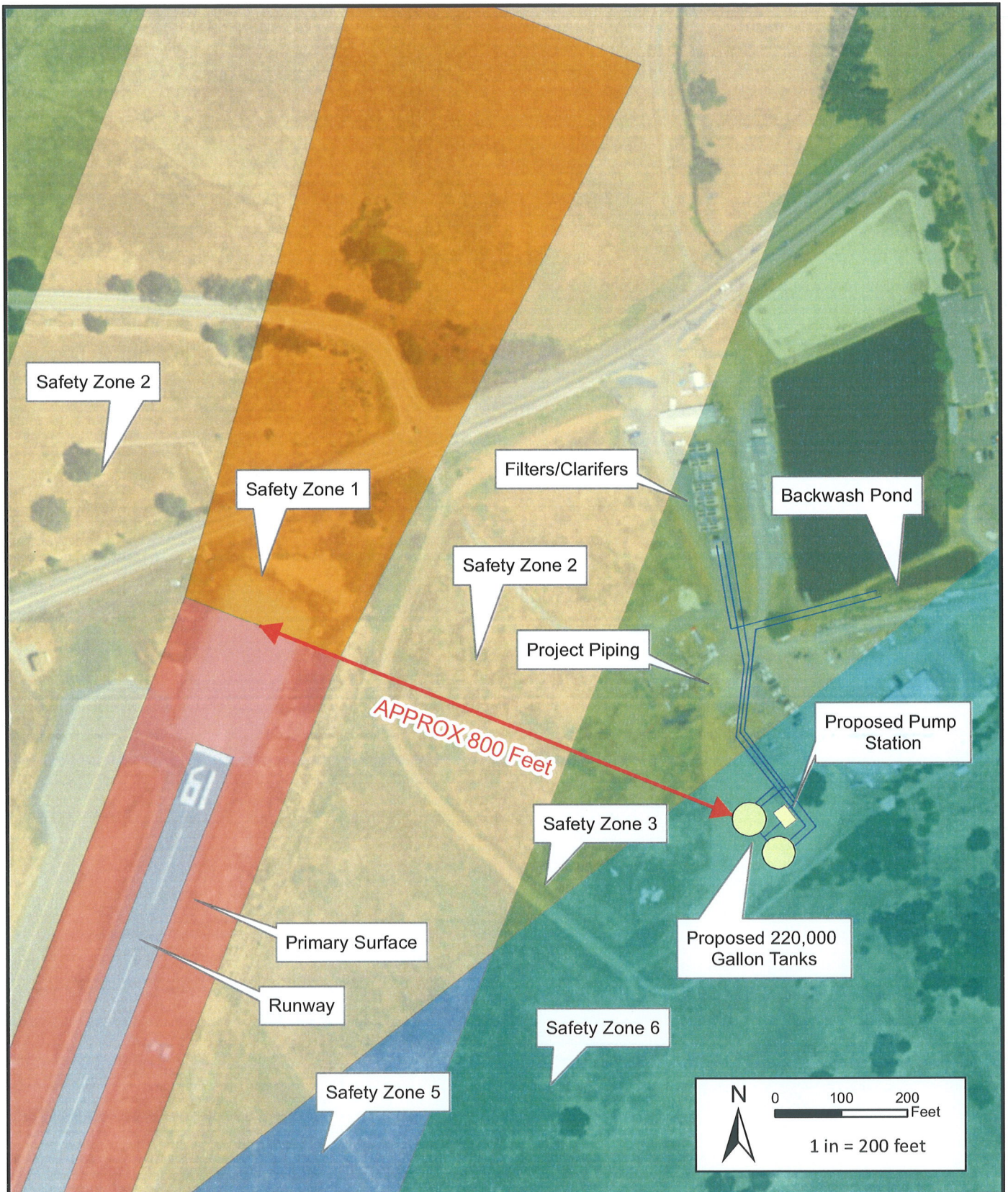
The project will consist of constructing two backwash storage reservoirs and one return pump station designed to return decanted water back to the inlet to the WTP and settled sludge to a solids handling facility. The locations of these facilities with respect to airport safety zones are presented in Figure 1. In addition, the location of these facilities with respect to existing topography are presented in Figure 2. The reservoirs and pump station are to be constructed on existing grade and will have a finished total height of no more than 35 feet above ground level. The proposed tanks will be located in Zone 6 approximately 800 feet away from the runway centerline (675 feet away from the Primary Surface) according to the Westover Field Airport Land Use Compatibility Plan¹. The site was selected to avoid construction within Zone 3 and maximize the clearance beneath the Airspace Protection Zone.

The proposed reservoirs will be approximately 50 to 60 feet wide, and no more than 35 feet tall including ventilation and railings. The height of the proposed facilities are below the Airspace Protect Zone. A preliminary profile of the closest proposed reservoir to the runway is presented in Figure 3.

Equipment used in the construction of the reservoirs shall not extend vertically into the Airspace Protection Zone more than 35 feet above existing grade. This requirement will be clearly addressed in the final construction documents and will preserve a minimum of 5 feet of clearance beneath the Airspace Protection Zone.

The ancillary improvements associated with the project will be constructed at or below grade and will not extend above the height of the reservoirs.

¹ Draft Westover Field Airport Land Use Compatibility Plan, Prepared for the County of Amador, June 2017



PETERSON . BRUSTAD . INC
ENGINEERING . CONSULTING



1180 Iron Point Rd., Suite 260
Folsom, CA 95630

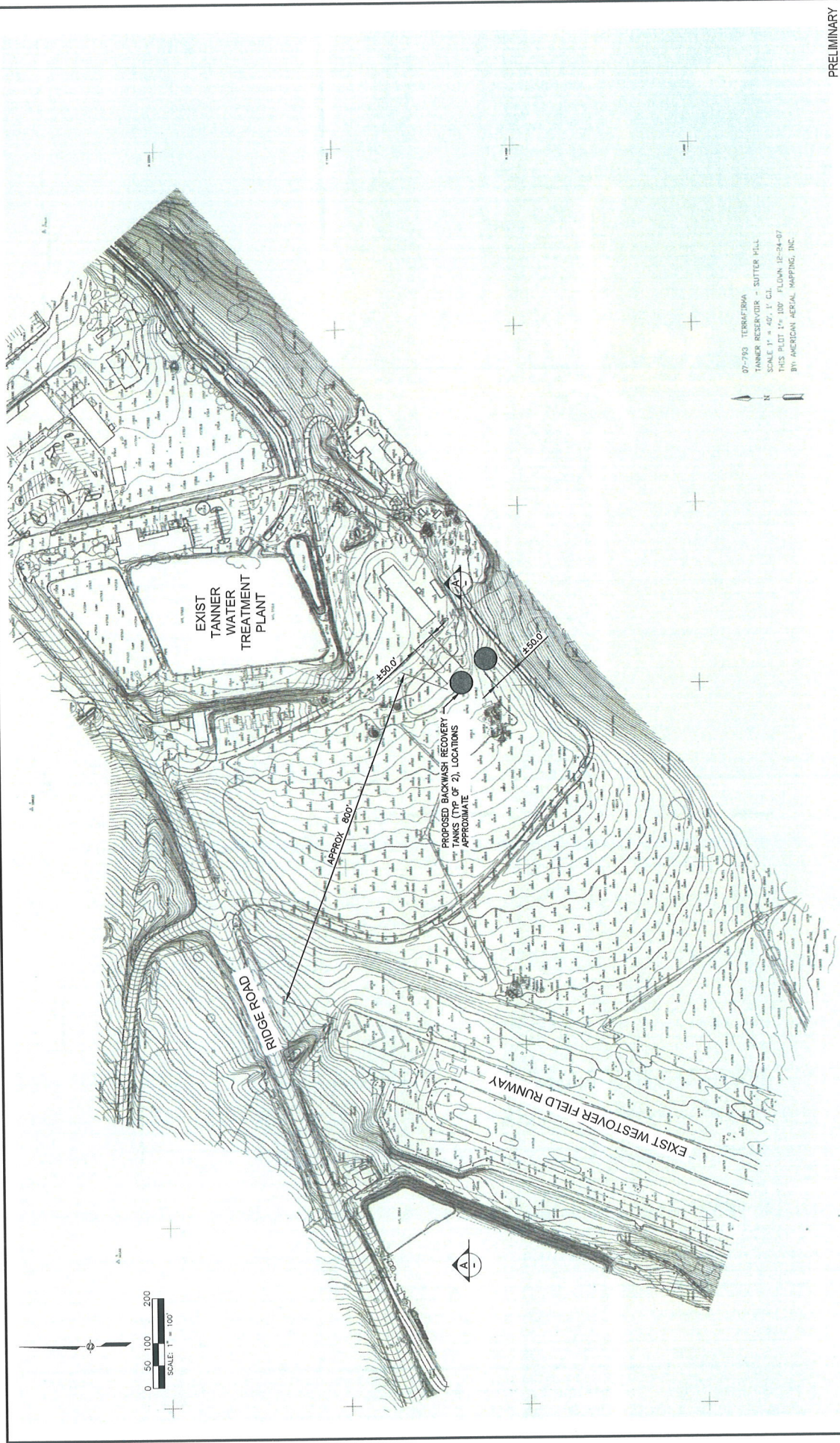
Phone: (916) 608-2212
Fax: (916) 608-2232

TANNER WTP BACKWASH RECYCLING PROJECT

Project Location

FIGURE

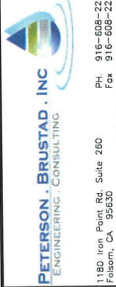
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07-793 TERRAFORMA
 TANNER RESERVOIR - SUTTER HILL
 SCALE 1" = 40', 1" CL.
 THIS PLOT 1" = 100' FLOWN 12-24-07
 BY: AMERICAN AERIAL MAPPING, INC.

PRELIMINARY

AMADOR WATER AGENCY
 TANNER WTP BACKWASH RECYCLING PROJECT



MARK BRUSTAD, PE
 PROJECT MANAGER
 57869
 E.C.E. NO.
 6/30/18
 EXP. DATE

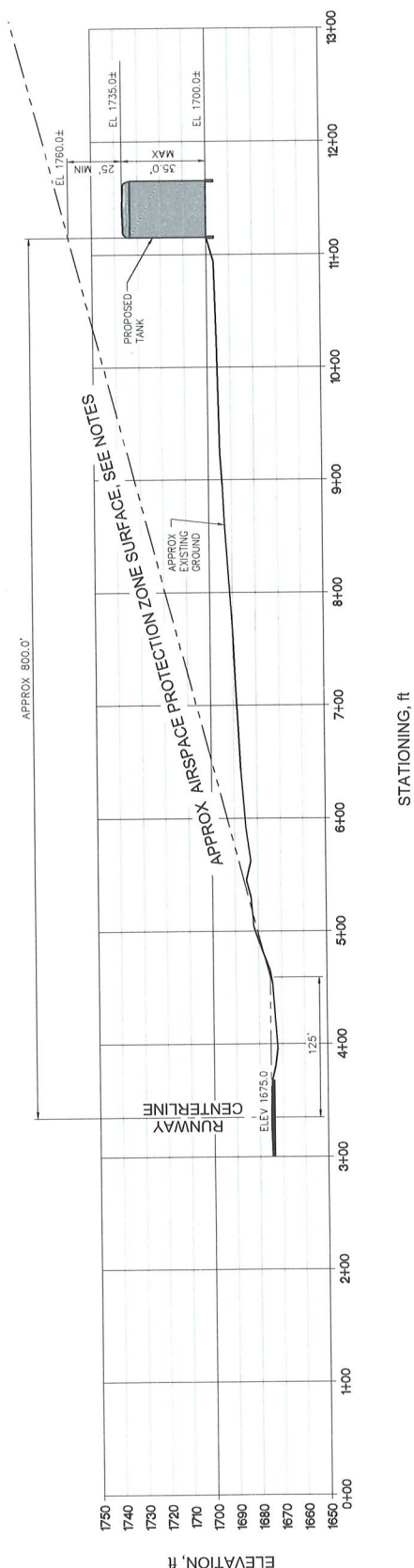
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|-----|----------|-----|---|
| 1 | 10/12/17 | JMT | PRELIMINARY AIRBORNE LAND USE APPLICATION |

PRELIMINARY SITE PLAN
 FIGURE 2

1180 Iron Point Rd. Suite 200
 Susanville, CA 95954
 PH: 530-938-2212
 FAX: 530-938-2212



NOTES:

SAFETY ZONE SURFACE APPROXIMATE BASED ON THE DRAFT WESTOVER FIELD AIRPORT LAND USE COMPATIBILITY PLAN AND THE DRAFT WESTOVER FIELD AIRPORT AIRSPACE PROTECTION SURFACE. PROTECTION SURFACE IS BASED ON THE CODE OF FEDERAL REGULATIONS TITLE 14 - AERONAUTICS AND SPACE, PART 77, SUBPART C, SECTION 77.19 - CIVIL AIRPORT IMAGINARY SURFACES WITH THE FOLLOWING CONSIDERATIONS:

- PER ARTICLE C.1 AND THE DRAFT PLAN, THE PRIMARY SURFACE WIDTH IS 250 FEET (EDGES ARE OFFSET 125 FEET FROM RUNWAY CENTERLINE).
- PER ARTICLE E, THE TRANSITIONAL SURFACE IS PROJECTED AT A 7H:1V SLOPE FROM THE EDGE OF THE PRIMARY SURFACE.
- PER THE TOPOGRAPHIC MAPPING USED TO DETERMINE THE FINISHING ELEVATION OF THE TRANSITIONAL SURFACE IS THE RUNWAY CENTERLINE AT ELEV 1675.0.

PRELIMINARY

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|--|----------|--|--|
| | | AMADOR WATER AGENCY TANNER WTP BACKWASH/RECYCLING PROJECT | |
| | | PRELIMINARY PROFILE FIGURE 3 | |
| 1:80 (not for scale) Suite 260 Pasadena, CA 91103 | | P: 916-658-2122 F: 916-608-2232 | |
| KAS: BRUSTAD, PE PROJECT MANAGER | | 57869 R.C.E. NO. | |
| 6/30/18 EXP. DATE | | DESIGNED: JMB/TWB DRAWN: JMB/TWB CHECKED: ASB | |
| SCALE: $H = \frac{1}{4} \text{ IN} = 1' \text{ TO } 1" = 25'$ $V = \frac{1}{4} \text{ IN} = 1' \text{ TO } 1" = 25'$ | | WARNING: 0 1/2 1 IF THIS SCALE DOES NOT MATCH THE DRAWING, THEN THE DRAWING IS NOT TO SCALE. | |
| DATE: OCTOBER 2017 | | PRELIMINARY AIRPORT LAND USE APPLICATION | |
| REV | DATE | BY | DESCRIPTION |
| 1 | 10/12/17 | JMB | PRELIMINARY AIRPORT LAND USE APPLICATION |

Please Type or Print on This Form



U.S. Department of Transportation
 Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USE ONLY

Aeronautical Study Number

1. Sponsor (person, company, etc. proposing this action):
 Attn. of: Damon Wyckoff
 Name: Amador Water Agency
 Address: 12800 Ridge Road
 City: Sutter Creek State: CA Zip: 95685
 Telephone: (209) 257-5284 Fax: (209) 257-5295

2. Sponsor's Representative (if other than #1):
 Attn. of: Karl Brustad
 Name: Peterson Brustad, Inc.
 Address: 1180 Iron Point Road, Suite 260
 City: Folsom State: CA Zip: 95630
 Telephone: (916) 608-2212, x 113 Fax: (916) 608-2232

3. Notice of: New Construction Alteration Existing
4. Duration: Permanent Temporary (_____ months, _____ days)
5. Work Schedule: Beginning April 2018 End September 2018
6. Type: Antenna Tower Crane Building Power Line
 Landfill Water Tank Other _____

7. Marking/Painting and/or Lighting Preferred:
 Red Lights and Paint Dual - Red and Medium Intensity White
 White - Medium Intensity Dual - Red and high Intensity White
 White - High Intensity Other

8. FCC Antenna Structure Registration Number (if applicable): _____

9. Latitude: 38 ° 22 ' 50.9 , N " "
10. Longitude: 120 ° 47 ' 19.5 , W " "
11. Datum: NAD 83 NAD 27 Other
12. Nearest: City: Sutter Creek State: CA
13. Nearest Public-use (not private-use) or Military Airport or Heliport:
Westover Field Airport
14. Distance from #13. to Structure: Approx 850 ft from runway
15. Direction from #13. to Structure: Northeast
16. Site Elevation (AMSL): 1700 ft.
17. Total Structure Height (AGL): 35 ft.
18. Overall Height (#16 + #17) (AMSL): 1735 ft.
19. Previous FAA Aeronautical Study Number (if applicable): _____ -OE

20. Description of Location: (Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey)
 See attached quad map, topo map, preliminary site plan, and preliminary profile exhibit.

21. Complete Description of Proposal:
 The Amador Water Agency is proposing to construct two new welded steel storage reservoirs and associated pumping and piping facilities at the southern limits of its parcel for the purpose of recycling treatment plant backwash wastewater. The dual reservoirs will be constructed at grade and are expected to have a finished total height of no more than 35 feet above ground level. The ancillary improvements associated with the project will be constructed at or below grade and will not encroach upon the Westover Field Airport beyond the footprint of the proposed reservoirs, nor will the extend above the height of the reservoirs. The new reservoirs will be complete enclosed with metal roof systems.

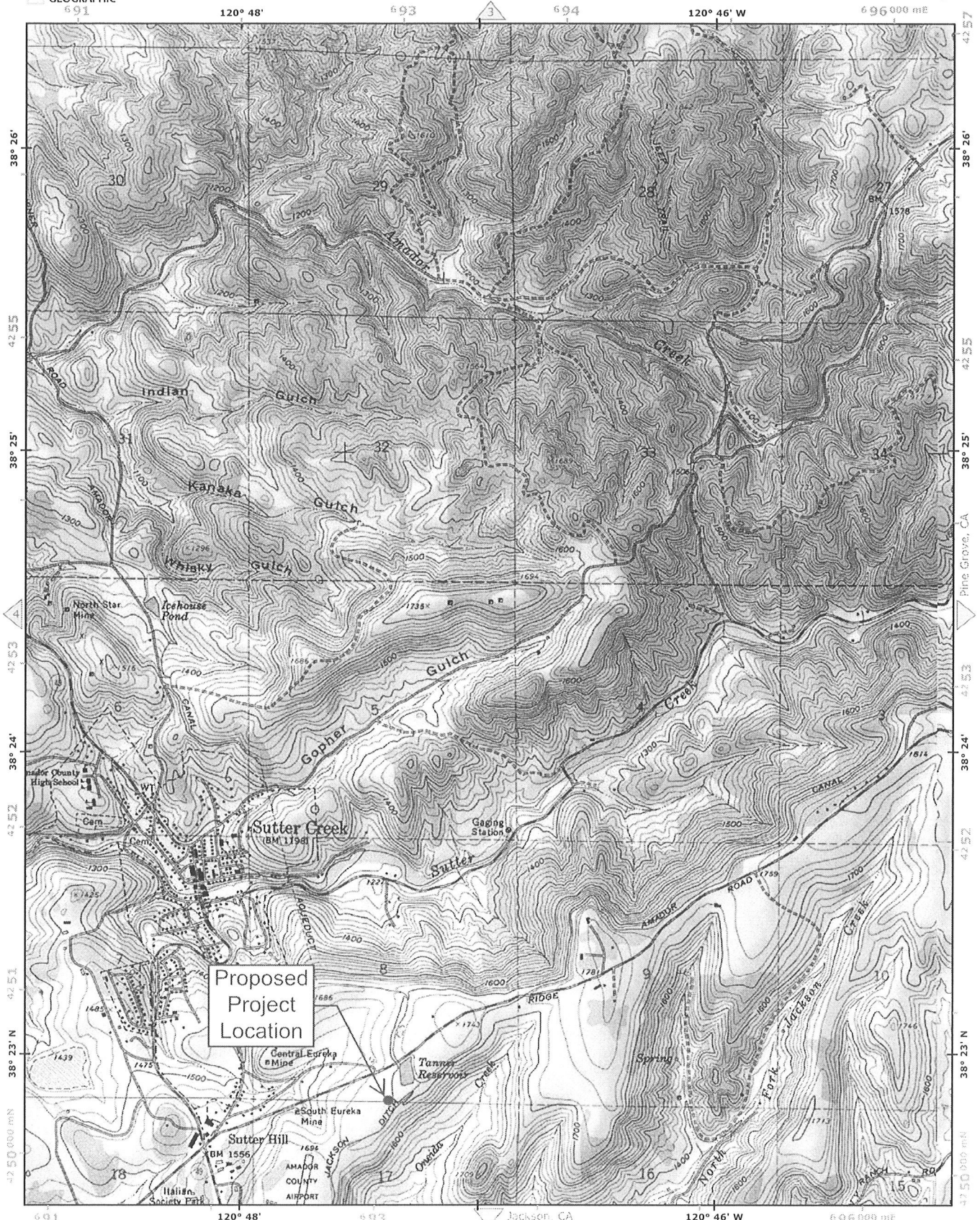
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Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of \$1,000 per day until the notice is received, pursuant to 49 U.S.C., Section 46301(a)

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking & lighting standards as necessary.

Date: October 6, 2017 Typed or Printed Name and Title of Person Filing Notice: Damon Wyckoff Signature: _____



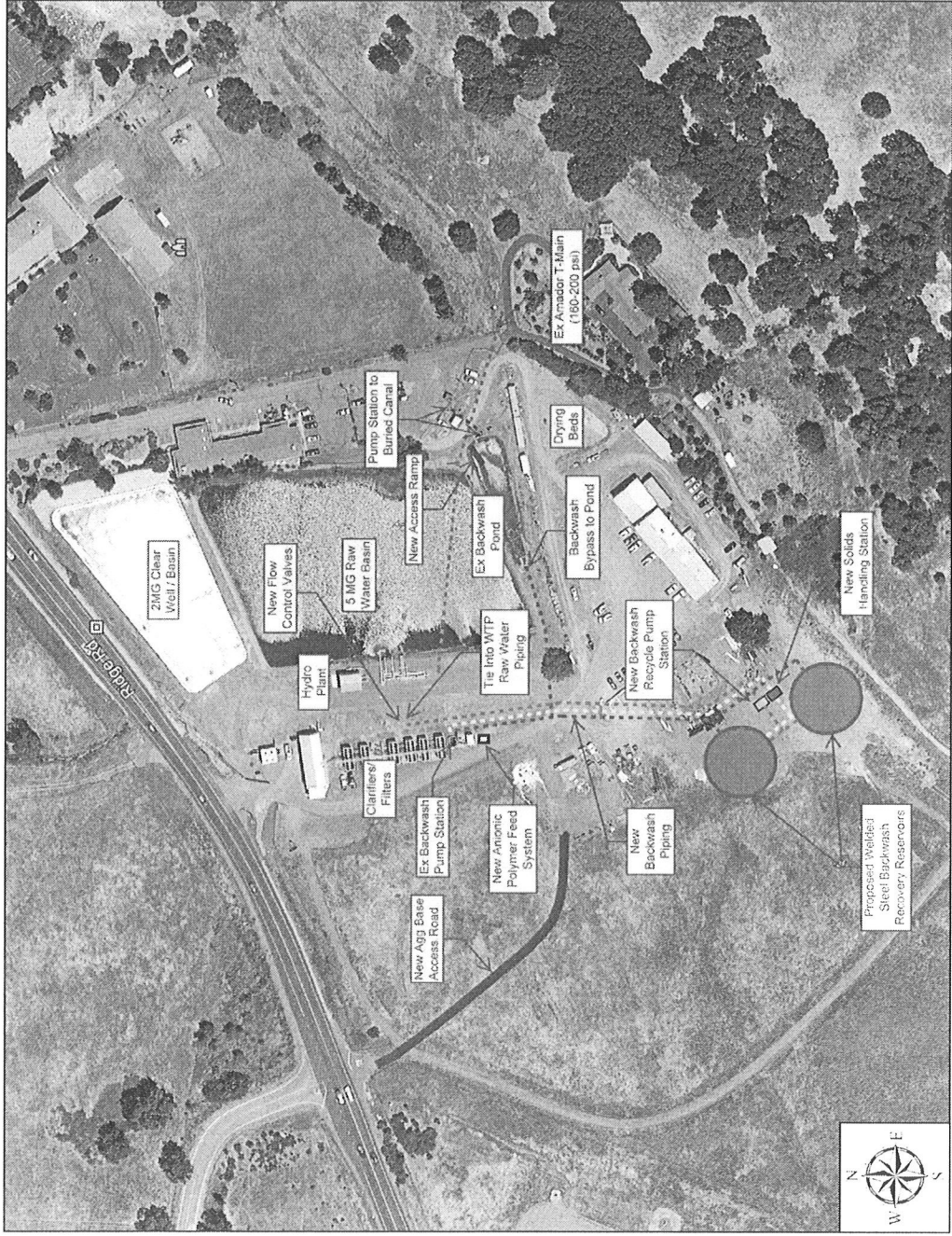
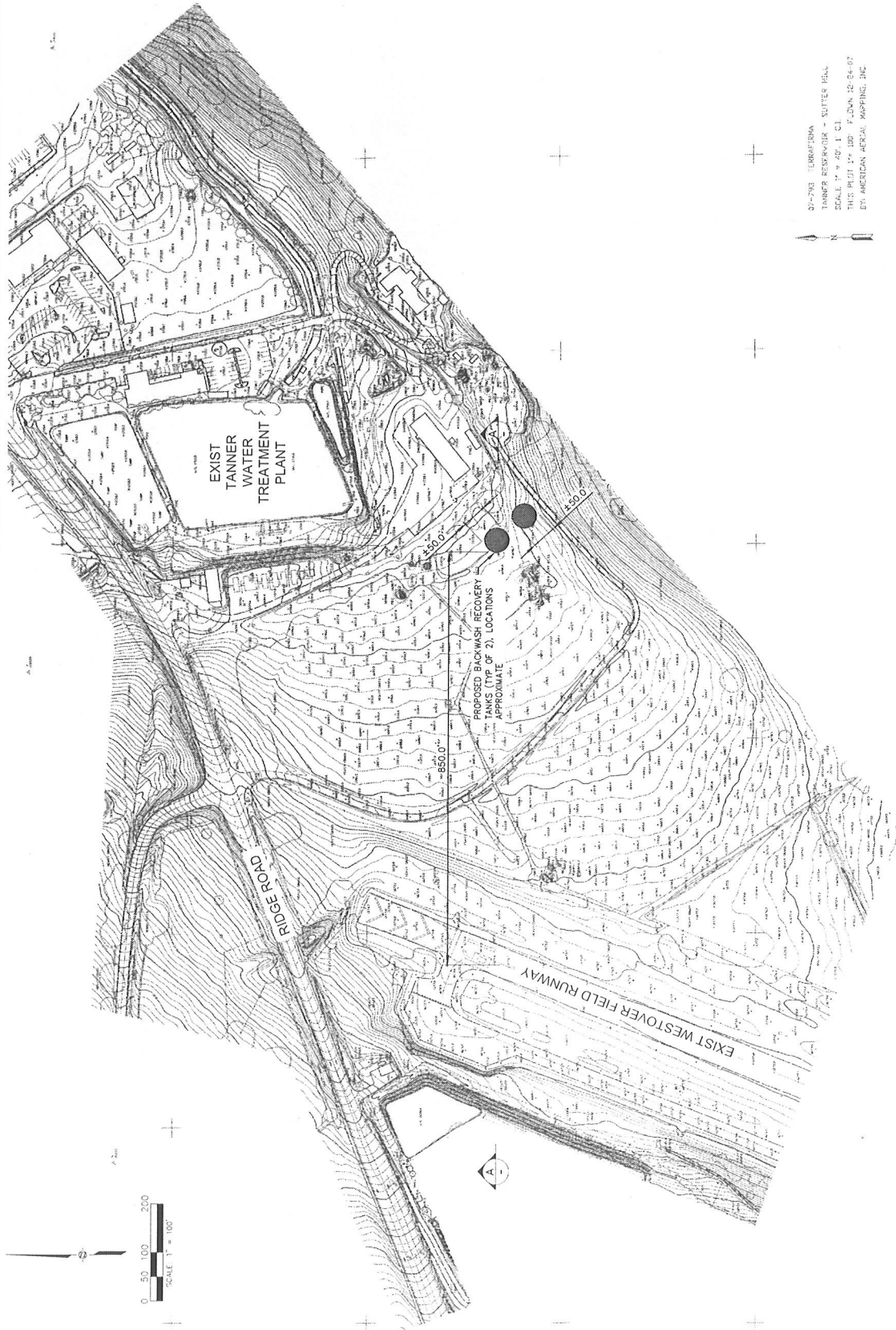

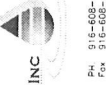

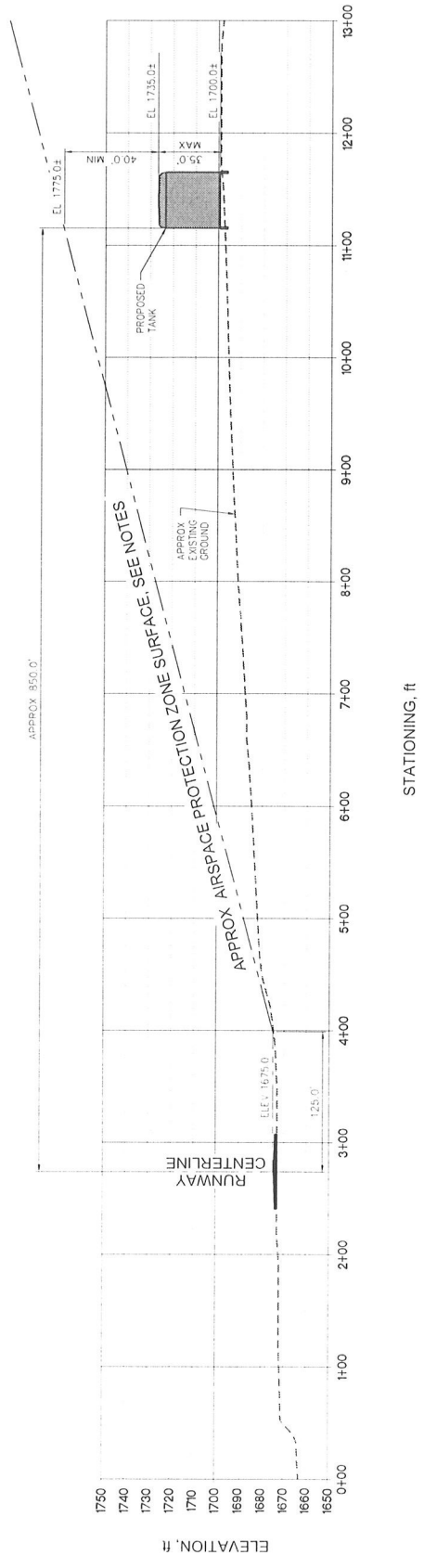


Exhibit: Preliminary Site Plan



30'-10" TERRAIN
 100' RESERVOIR - WESTER HILL
 SCALE 1" = 100' 1" C1
 THIS PLAN IS FOR PLOTTING AS SHOWN
 BY AMERICAN AERIAL MAPPING, INC.

| | | | |
|--|--|---|-------------|
| PRELIMINARY SHEET | | AMADOR WATER AGENCY TANNER WTP BACKWASH RECYCLING PROJECT | |
| C1 | | PRELIMINARY SITE PLAN | |
|  | |  | |
|  | | PETERSON BRUSTAD, INC. ENGINEERING CONSULTING 1180 Iron Point Rd. Suite 200 Folsom, CA 95630 Ph: 916-608-2312 Fax: 916-608-2312 | |
| SCALE | 1" = 100' | RESPONSIBLE | DATE |
| WARNING | IF THIS DRAWING IS USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER, THE USER ASSUMES ALL LIABILITY. | PROJECT ENGINEER | DATE |
| DATE | MARCH 2015 | M. BRUSTAD, PE | 6/20/18 |
| PROJECT | TANNER WTP BACKWASH RECYCLING PROJECT | PROJECT MANAGER | DATE |
| REV. | DATE | BY | DESCRIPTION |



NOTES.

SAFETY ZONE SURFACE APPROXIMATE BASED ON THE DRAFT WESTOVER FIELD AIRPORT LAND USE COMPATIBILITY PLAN PREPARED FOR THE COUNTY OF AMADOR, DATED JUNE 2017. SURFACE PROJECTION IS BASED ON THE CODE OF FEDERAL REGULATIONS TITLE 14 - AERONAUTICS AND SPACE, PART 77, SUBPART C, SECTION 77.119 - CIVIL AIRPORT IMAGINARY SURFACES WITH THE FOLLOWING CONSIDERATIONS:

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AMADOR WATER AGENCY
TANNER WTP BACKWASH RECYCLING PROJECT
PRELIMINARY PROFILE



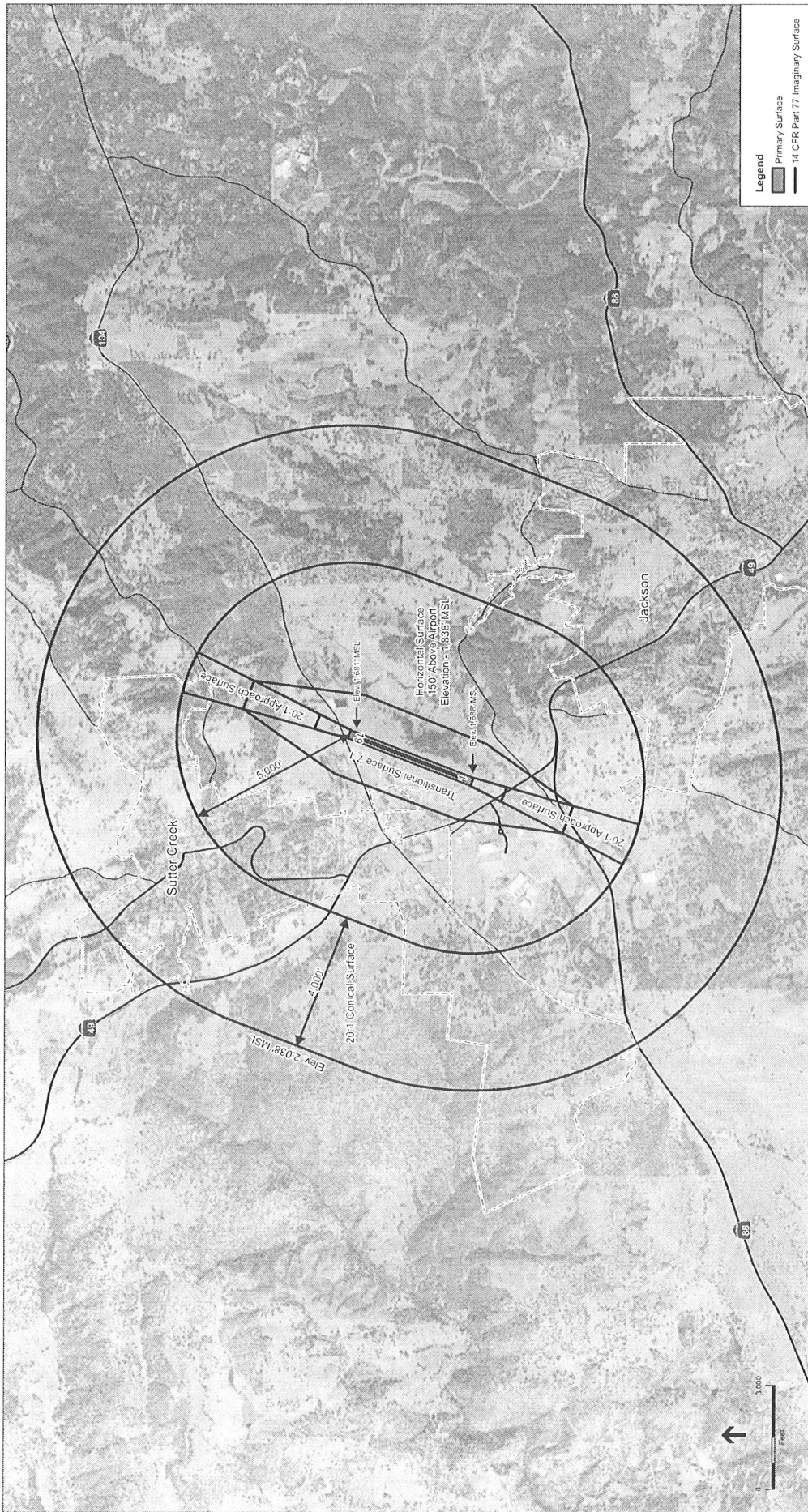
PETERSON, BRUSTAD, INC.
REGISTERED PROFESSIONAL ENGINEERS
1180 Iron Point Rd. Suite 240
Folsom, CA 95630
PH 916-608-2212
FX 916-608-2232



| | |
|----------------------|---------------|
| DESIGNED: TWB | DATE: 5/23/18 |
| DRAWN: TWB | DATE: 5/23/18 |
| CHECKED: KBB | DATE: 5/23/18 |
| PROJECT MANAGER: KBB | DATE: 5/23/18 |

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| SCALE: HORIZONTAL 1"=100' | VERTICAL 1"=40' |
| DATE: MARCH 2018 | |
| WARNING: 0 1/2" 1" 1 1/2" 2" 3" 4" 5" 6" 8" 10" 12" 15" 20" 25" 30" 40" 50" 60" 80" 100" 120" 150" 200" 250" 300" 400" 500" 600" 800" 1000" | IF THIS SCALE DOES NOT MEASURE TO THE DIMENSIONS NOTED IN THESE NOTES, IT IS NOT TO BE USED. |

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|---|----------------|
| PROJECT NO. 17-0017 | DATE: 03/20/18 |
| PROJECT NAME: TANNER WTP BACKWASH RECYCLING PROJECT | DATE: 03/20/18 |
| PROJECT LOCATION: 744 APPLICATION, EMBETT | DATE: 03/20/18 |
| PROJECT DESCRIPTION: PRELIMINARY PROFILE | DATE: 03/20/18 |



Amador County Westover Field ALUCP .211061
Figure 3-3
 14 CFR Part 77 Imaginary Surfaces

SOURCE USDOT FAA 14 CFR Part 77, Saife, Efficient Use and Preservation of the Navigable Airspace, July 21, 2010, ESA, 2016, ESRI

DRAFT FOR DELIBERATIVE PURPOSES ONLY