

**Ball Property Wetland Reconnaissance, OHWM
Determination and Mitigation Plan
Ronald, Washington**

Submitted to:
The Ball family
18401 Salmon La Sac Road
Ronald, Wa, 98940

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Kittitas County CDS

4/3/2019

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APR 12 2019

Kittitas County CDS



COOKE SCIENTIFIC
4231 NE 110th Street
Seattle, WA 98125
(206) 695-2267

SITE DELINEATION SUMMARY

The Ball Family has requested an investigation to determine the boundary of the Ordinary High Water Mark (OHWM) of lake Chelan and if any wetlands are found on their property, located at 18401 Salmon La Sac Road in Ronald, Wa. (Figure 1. - Vicinity Map portion of the map). It is recorded as Lot # 6 on the plat Map (Figure 1).

My scope included investigating current conditions in the vicinity of the septic and drainfield and writing a letter report to the County describing the results of the site investigation, documenting the site conditions overall for critical areas, including wetland and streams and rating any wetlands (there weren't any), and identifying the Ordinary High Water Mark (OHWM) of Lake Cle Elum. The buffers required by the County under a Shoreline exemption that would allow for a 100-foot buffer also needed to be identified should I find any critical areas. The County also requested a mitigation plan that addresses the impacts and management needs for the buffer area that includes the septic area drainfield, and any that might result from the building of the proposed house structure identified on Figures 2, 4, and 5a, 5b.

Cooke Scientific staff investigated the property for wetlands Steams and OHWM on August 30, 2018. We found no wetlands on the property on top of the slope and no wetlands within the zone identified on Figure 9 as having wetlands See Figures 2-4 and Photo Pages). The area between the toe of slope and the lower lake level lacks soils and vegetation criteria and the hydrology indicators are only present when the Lake level is high (See Figure 3 and Photo Pages 4 and 6). There are no streams on the property west of the Salmon La Sac Road (Figure 8). The stream crosses from the property east of the road, passes under the road and exits to the Lake via Lot 12. The OOHWM is not at the top of the slope as shown on the County map (Figure 7) but is actually where it is shown on Figure 10. This was difficult to determine because it lacked the usual criteria ("a mark upon the land as identified by the soils and vegetation" or secondary characteristics as seen in aerials from 7/15/14, and 7/13/17 and the ground shots shown on Photo pages 4 and 5), but the Washington State Department of Ecology has determined that it is at the toe of the slope as shown on Figure 10 and the Google aerial from 7/10/12 and the Site plan (Figure 5a).

The property on top of the steep cliffs is entirely upland in character and is dominated by Douglas fir (*Pseudotsuga menziesii*) and Ponderosa Pine (*Pinus ponderosa*). The understory is sparse because of the dry nature of the area but dominant shrubs are snowberry (*Symphoricarpos albus*), dewberry (*Rubus ursinus*), western serviceberry (*Amelanchier alnifolia*), and oceanspray (*Holodiscus discolor*), (Photo Sheets).

Installation of the septic pits occurred over ten years ago and the area has revegetated in except for the actual septic lids. There is no potential to plant in this area because there are plants wherever there is soil. The drain field does include some bare ground and Mitigation will consist of backfilling the small area with the same plants that are found on the land in the non-cleared areas, including snowberry, dewberry, western serviceberry, and oceanspray. There is an additional area north of the proposed house (Figure 5b) that will remain as native land with trees and understory. No development will occur in this area. It will remain in native vegetation.

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The following are found immediately after the reference section:

Photo Pages:

- Sheet 1. Native veg on the property, east of the driveway; west of the driveway
- Sheet 2. A few willows on the beach below the toe of slope (OWWM); the house site looking west, the house site looking North towards the compensation area for shoreline buffer encroachment.
- Sheet 3. Leachfield area and septic tank area.
- Sheet 4. Base (toe) of slope, top of beach; Beach lacking vegetation; Beach looking east towards the Ball property.
- Sheet 5. Eroded ledge (on the beach); Eroded ledge showing steep incline to the water's edge; rocky beach cobbles lacking vegetation within DOE's designation within the shoreline
- Google aerial 7/10/12 Ball Property
- Google aerial 7/15/14 Ball Property
- Google aerial 7/13/17 Ball Property

Figures:

- Figure 1. Vicinity Map, and Plat Layout Anna Bell Plat
- Figure 2. Ball Property, Septic and Leachfield Layout
- Figure 3. Ball Property, Topography and Tree mapping
- Figure 4. Ball Property, GPS mapping from Site Assessment, Key to Photographs
- Figure 5a. Ball Residence, Site Plan,

- Figure 5b. Ball Property, Mitigation Locations and OHWM and Buffer Identification.
- Figure 6. Ball Property, Kittitas County's Inaccurate Flood Map.
- Figure 7. Ball Property, Kittitas County's Inaccurate Shoreline Map.
- Figure 8. Ball Property, Kittitas County's Stream Map.
- Figure 9. Ball Property, Kittitas County's Inaccurate Wetland Map
- Figure 10. Ball Property, Final OHWM Location on Aerial as seen on Figure 5 Site Plan.

BALL PROPERTY OHWM DELINEATION WETLAND RECONNAISSANCE AND MITIGATION PLAN

BACKGROUND/INTRODUCTION

The property is part of the Anna Bell plat that was recorded in 2006. The Ball property is recorded as Lot #6 (See Figure 1). Although the actual lot is an oddly shaped property (seen on Figures 6-9), the actual development area is only that part identified on Figures 3 and 5, west of the road.

The septic permit that included an almost identical site plan to that currently proposed was submitted by the Ball family in 2008. There is a County stamp on the plans that make it look like it was approved, and it is my understanding that all of the development team thought the permit was approved at that time, so the septic installation was done the third week of October 2008. Now, 10 years later, the County is asking for the impact of that installation to be mitigated for the acreage lost because current County staff have no record that the permit was issued (Pers. comm., Calvana Carper, August 2018). As part of the Shoreline variance permit that will allow the construction of a house and septic in the typical Shoreline buffer, the County also asked for a site reconnaissance for wetlands, streams, and shoreline and a delineation of any resources found, because the County's maps show these resources on the property (Figures 6, 7, 8, and 9). It is clear from these Figures and my site assessment that the County's critical areas mapping is not accurate. (Figures 6-10).

The County specifically wanted any residual impacts that resulted from the installation of the septic system and house within the Shoreline setback to be mitigated for. This also included any buffer impacts that may result from the installation of the house and associated development of the residential infrastructure. All details about development of the site need to be in compliance with Kittitas County Critical Areas Ordinance Title 17A KCC updated in 2017.

METHODS

Prior to conducting the delineation, Cooke Scientific staff reviewed existing topographic maps (Figures 6-9. County's GIS database); National Wetland Inventory (NWI) maps; Natural Resource Conservation Service (NRCS) soil surveys; Google Aerials to determine the potential locations of wetlands and streams on the property in order to evaluate the soil, hydrologic, and vegetative characteristics for wetlands mapping. Climate data was collected for the County from back in 2016 and for 2107-2018 to determine if "normal" conditions were present prior to doing the field work. The lake levels were much lower than previous years based on the aerials from 2012, 2014, and 2017 for approximately the same time period.

Wetlands: The presence of wetlands and streams was determined by traversing the property both east and west of the Salmon La Sac Road on October 8, 2019 and documenting vegetation, soils, and hydrologic characteristics. All wetland determinations were conducted using the newest Army Corps of Engineers Regional

Supplemental (*Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*, 2. May, 2010). This methodology calls for examining vegetation, soils, and hydrology throughout the site. Had any wetlands been found, the identified wetland within the properties was classified and the functions assessed using the 2014 Update to the *Western Washington Wetland Rating System for Western Washington—Revised* (Hruby 2006; Publication #14-06-029) (Rating System). There was no reason to use this methodology because no wetlands were found.

Streams: Since the stream was east of the Road and no development is proposed in that area, no evaluation was made for an OHWM for Bell Creek as defined by the Revised Code of Washington (RCW) 90.58.030 and the Washington Administrative Code (WAC) 220-660-030. Had there been a stream within the Ball property west of the Road, the methodology used to evaluate it would have been that developed by the Washington State Department of Ecology (WDOE Publication # 16-06-029 2016. *Determining the Ordinary High-Water Mark for Shoreline Management Act Compliance in Washington State*). The protocol requires examination of the stream bed and bank physical characteristics, the associated vegetation, and the indicators of the hydrology present during regular normal rain events. Bell Creek is shown on Figures 4 and 8.

Vegetation across the property was assessed using the 2018 latest update to the Wetland Indicator Plant list (NPL, ERDC/Cold Regions Research Engineering Lab (2012). Nomenclature follows Hitchcock and Cronquist (2018) and the Flora of North America 2018. Plant Community classifications follow Cowardin (1979).

Soils were examined using a standard 3-foot long soil auger, with most samples taken to 24-inches. Only upland soils were found. The methodology outlined in the Corps Supplement required examination of the soil to 18+ inches of depth and evaluation of soil texture and color using the Munsell colors (Munsell color 1992).

GENERAL SITE CHARACTERIZATION

3.1 Septic area

The septic tanks can be seen as three circular lids on the slope that grades down to the beach area. Their location can be seen on Figures 2, 3, 4, and 5, and Photo Sheet 3. All the area around the tanks consisted of installing tanks below the ground. It has been ten years since the installation and the area has since completely restored itself (except for the actual lids) to the same vegetation that is found elsewhere on the slope that grades down to the lake edge.

3.2 Drainfield

The area where the drainfield was installed had recently been disturbed (Photo sheet 3). An area 12 feet x 32 feet was bare of plants, so this area will be replanted with shallowly rooted shrubs and forbs. No deeply rooted trees or shrubs will be planted there because of the potential to cause problems with the leachfield, but shallowly rooted shrubs should not cause a problem. See the mitigation section below.

3.3 House site

Is currently somewhat open, as is typical with east-side forests. It is still vegetated with a few trees (mapped on Figure 3, photo on Photo page 2) and understory vegetation consisting of shrubs and forbs. As is the area to the north that will be set aside for mitigation (Figure 5b).

Wetland: The County shows a wetland on the property (Figure 9). They also mention a wetland on page 3 of the PSA #18-00194. ***There is no wetland area anywhere on the property.*** I investigated the entire property off the Salmon La Sac Road and down below the cliff on the beach associated with Lake Cle Elum. There were no jurisdictional wetlands anywhere on the property. This is based on 35 years of wetland delineation expertise and using the criteria required under Section 17B.05.020F of the Kittitas County code and outlined in the US Army Corps of Engineers protocol "*The Regional Supplement to the Corps of Engineers Wetland Delineation Manual for Western Mountains, Valleys, and Coast Region* (May 2010) nor "*The Regional Supplement to the Corps of Engineers Wetland Delineation Manual for the Arid West* (Version 11-1-2006)". I examined for soils, hydrology, and vegetation indicators and they just did not exist, especially in the areas shown on the County's map on Figure 9. I have included photos of the property attached on Photo Sheets 1-4. The beach area identified on the County's wetland map are shown in their actual ground conditions on Photo Sheets 2, 3, and 4. As can be seen, the area identified as wetland is beach cobble with less than five percent vegetation. I found a few scattered clumps of shore sedge (*Carex lenticularis*, FACW) and a few clumps of newly germinated Scouler willow, (*Salix scouleriana*, FAC) and one very small lady's thumb (*Persicaria maculosa*, FACW). The soils were a coarse sand and cobbles.

3.4 Upland Areas on site

The upland portions of the site are characterized by open dry forest dominated by *Pseudotsuga menziesii*) and Ponderosa Pine (*Pinus ponderosa*). The understory is sparse because of the dry nature of the area but dominant shrubs are snowberry (*Symphoricarpos albus*), dewberry (*Rubus ursinus*), western serviceberry (*Amelanchier alnifolia*), and oceanspray (*Holodiscus discolor*), (Photo Sheets).

3.5 Stream

While the County's Critical areas mapping for streams shows Bell Creek on the property (Figure 8), it is actually east of Salmon La Sac Road and passes under the road – through the easement owned by the Ball family and there is no stream on the property that is to be developed west of Salmon La Sac Road. The stream (Bell Creek) comes from east of the road and it enters a culvert and passes under the road, well south of the Ball property where the house and other areas to be developed exist. This stream did not appear to affect the development of the lot (13) where it actually exists so there should be no issue of its presence on the lot the Ball family now want to develop.

3.6 Lake Edge- Shoreline

The Ordinary High-Water Mark (OHWM) was evaluated using the methodology outlined by the Department of Ecology in their "*Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State*, 2016 Publication # 16-06-029. As required, the "mark upon the landscape" down below the property at the toe of the slope (see topography Figures 3, 5, 6, and 7) would be identified at the eroded edge on the beach seen on Photo Page 4 and on Figure 4 the GPS map I produced during the field work. The aerial photograph Google selected as the base map for mapping the GPS data (Figure 4) was showing the lake during an obviously much higher water level than where the water level was on the day that I visited the site (Photo Pages 4 and 5). As stated above in the Wetlands section, there was almost no vegetation (less than 5 percent aerial cover overall), the soils are sandy with cobbles and the only obvious indicator was the eroded edge. The County has mapped the OHWM on top of the slope (Shown in Figures 6 and 7), and clearly that is not correct.

The area above the eroded line on the on the beach (Photo Page 5, is above the area that commonly floods or there would be an erosive feature, vegetation, algal lines on the bedrock (Photo Page 4) at the toe of the slope. No such erosive feature exists there and the other indicators of vegetation, and soils, and indicators of hydrology are also missing. Although the aerial photograph seen in the photo section of this report (7/10/2012 and the aerial on the GPS mapping) show the water at a much higher elevation (right at the toe of the slope), there are two marks upon the beach visible in the other aerials and found during this summer's site investigation in August indicating that the water is more commonly lower down on the beach. The beach below the toe of slope is almost devoid of vegetation except for a few tufts of shore sedge (*Carex lenticularis* var. *lenticularis*) and *Scouler willow* (*Salix scouleriana*). In using the OHWM methodology, it was not clear that the OHWM is where it is shown on the 2012 aerial because of the lack of vegetation and eroded features see on Figure 4 and on the aerials from 7/15/2014 and 7/13/2017, where you can see the erosive lip shown on Photo Page 5.

The Washington State Department of Ecology has determined the OHWM is at the toe of slope. They state that this is because the Lake levels are for a short time every year at that elevation. As stated in the manual, "Common misunderstandings in determining lake OHWMs include: (1) assuming that the OHWM is limited to the area of open water and not following the continuous and contiguous water surface elevation to its landward limit within fringing wetlands and, (2) in lakes with a significant groundwater input, not accounting for a seasonal lag time in the highest water levels; high water does not necessarily occur at the wettest time of year. In those rare circumstances on lakes (and streams) where the OHWM cannot be determined from field indicators, the SMA directs that the OHWM shall be the line of mean high water (RCW 90.58.030(2)(c))." The area lacks vegetation and soils to fulfill the criteria as outlined in the State's OHWM manual, **but I defer to the DOE and we have placed the line where they have indicated** per RCW 90.58.030(2)(c).

MITIGATION

All details listed below are in compliance with County Code KCC 17B.05.020E. for Mitigation.

4.1 Septic Pit Impact and Mitigation North of the House

In exchange for the "impact" to the septic pit area 100-foot Shoreline buffer, an equivalent area (28' x 28' = 784 FT²) will be set aside north of the house (as shown on Figures 5a and 5ba and 5b) that will not be developed, nor cleared and left in a "natural" state with native trees and shrubs and forbs). This will be set aside as a permanent "no touch" buffer and will be recorded on the plat map on file with the County. Photo page 2, (lower photo) shows this area. The existing natural vegetation will be left untouched and no future activity will be planned that will affect this area. As shown on the photo, the septic area is after 10 years, fully vegetated and so needs no additional plantings in-situ.

4.2 Leachfield

The leachfield is located outside of the buffer zone (Figures 2, 4, 5; and Photo Page 3) but this area will be replanted as compensation for the disturbance that occurred as a result of the recent disturbance in situ and the future construction of the house and driveway. The rest of the site minus where the house is to be built and the existing driveway is fully vegetated and so there is really nowhere else to plant. The following will be planted: (in the rectangle identified on Figure 5b)

Common Name	Scientific Name	# to be installed*
oceanspray	<i>Holodiscus discolor</i>	3
Dewberry	<i>Rubus ursinus</i>	15
Snowberry	<i>Symphoricarpos albus</i>	10
Western serviceberry	<i>Amelanchier alnifolia</i>	5

- All plantings are to be 1-gallon size nursery stock and installed in a random fashion at least 3-feet on-center (O.C). from the next plant.

MONITORING

Monitoring will occur twice yearly on years 1, 2, 3, and 5. after the planting has been done on the leachfield.

- April
- late August.

Monitoring will consist of: (See Figure 5b)

1. **Taking photos every year at the photo stations** established at the following locations:

- Septic pits (1 photo that covers the entire area)
- Mitigation area for the septic pits north of the house (1 phot of the entire area)
- Leachfield. 2 photos that cover the area close up. One covering the southern half and 1 covering the northern half.

Photo stations will be established by installing a stake where the photos are to be recorded in all 4 locations. Photos of each location will be recorded every year monitoring is required to document both the mitigation are north of the house and the septic pit area are left untouched. The photos of the vegetation in the leachfield is documented to be sure is it surviving and thriving.

2. **Documenting weeds and any open spaces larger than 3-feet in diameter** on a detailed site map (using Figure 5 as the base map) and developing a plan for removing the weeds and planting in any “open” spaces. This should be done as early in April as possible after the April monitoring, and in October/November, after the August monitoring. The number of open spaces will be identified and plants from the table shown above can be selected – one per open space 3-feet in diameter will be ordered and installed. Any native volunteer plants will count towards the plantings and seedings may be transplanted form elsewhere into this area.

3. **An email or letter report will be submitted to the County** each year.

- In the spring (by the end of May)
- In the fall (by the end of October) documenting the current site conditions for all three areas. The family will contact the field ecologist if any questions arise.

MAINTENANCE

Weeds located on or near the three mitigation areas will be removed on a regular basis. This should occur (as needed) in:

- March
- early May
- July,
- early August

The field ecologist will monitor the site the first year after the planting and identify all the weedy species anticipated to be present in the area. A simple field identification manual with photos will be produced for the Ball family so they can identify the weeds, and they will help with setting up the photo stations, so they know how and where to take photos. It is anticipated that the Ball family will be able to remove the weeds after that point. Any plants that appear that weren't previously present, and which seem to be spreading can be identified by the field ecologist (by the family takin

photos and emailing the photos to the field ecologist). The field ecologist will tell the family if they are weeds and the family will add them to the list of plants to be removed. Removal will consist of hand-pulling and bagging and removing the weeds from the site. If a suitable compost bin can be constructed or obtained, the weeds may also be composted.

REFERENCES

- Cowardin 1979 L. M. Cowardin, Virginia Carter, F. C. Golet, and E. T. LaRoe (Cowardin). 1979. U. S. Fish and Wildlife Service Report FWS/OBS-79/31. Classification of Wetlands and Deepwater Habitats of the United States. Flora of North America. 2018. http://www.efloras.org/flora_page.aspx?flora_id=1
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- U.S. Army Corps of Engineers. Waterways Experiment Station. Technical Report Y-87-1. Corps of Engineers Wetlands Delineation Manual. Vicksburg, Miss.
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- U. S. Fish and Wildlife Service (USFWS). 2010 and 2018.

<http://www.fws.gov/wetlands/data/Mapper.html>. National Wetland Inventory Mapping System.

Photos

Native veg on the Property



Native veg on the Property



Few Willows on beach



House Site

**Photo Page 2. Ball Property,
Anna Bell Plat, Kittitas County, Wa**

House Site





Leachfield area



Septic tank area

**Photo Page 3. Ball Property,
Anna Bell Plat, Kittitas County, Wa**



Base of slope top of beach



Beach lacking veg

**Photo Page 4. Ball Property,
Anna Bell Plat, Kittitas
County, Wa**



Beach looking back at
Ball property



Eroded Ledge



Eroded Ledge in front of property



very little veg on beach

Photo Page 5. Ball Prope Plat, Kittitas County, Wa

Figures

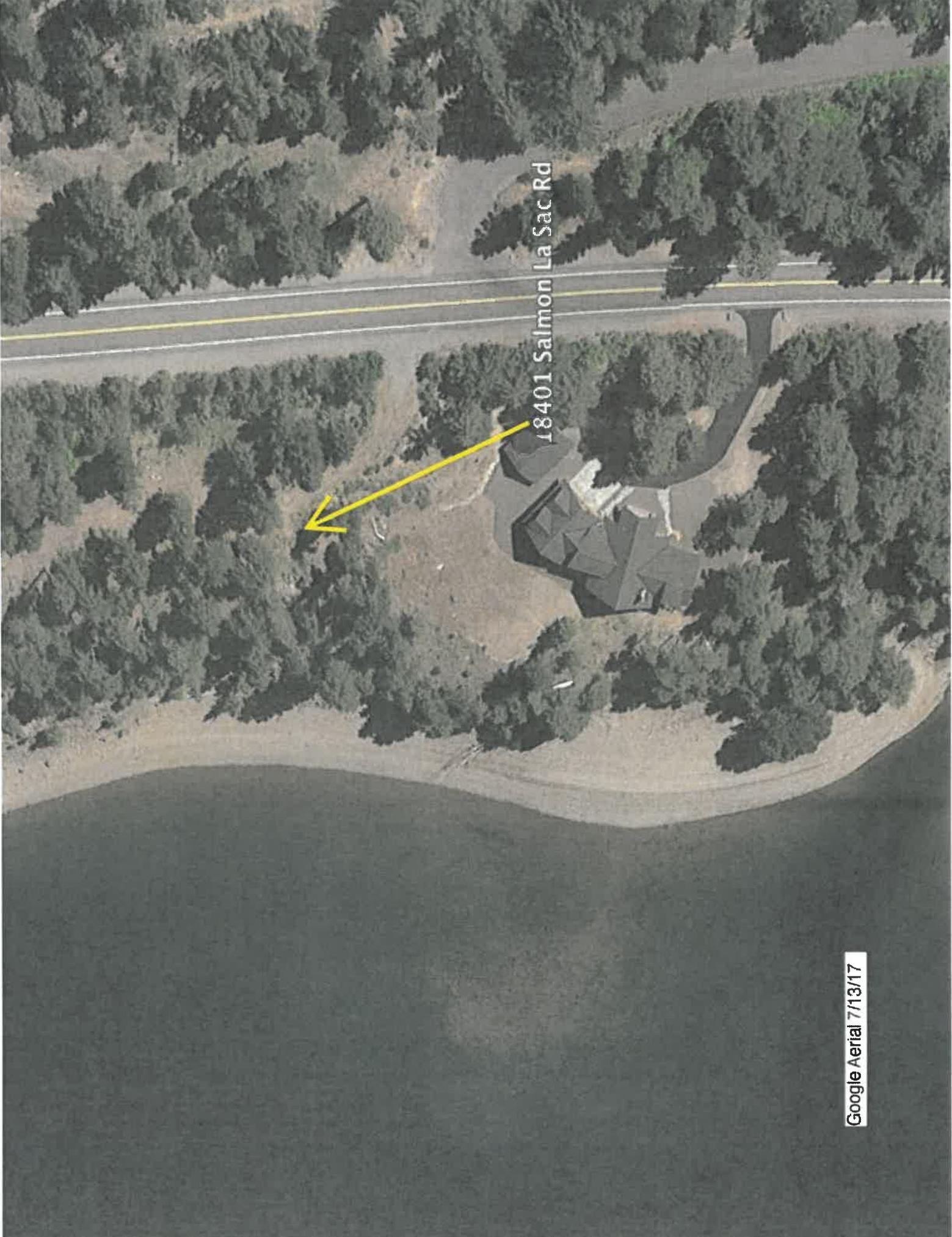
18401 Salmon La Sac Rd



18401 Salmon La Sac Rd



Google Aerial 7/15/14



18401 Salmon La Sac Rd



RECEIVING NUMBER 20010222-0067

P-05-39

ANNA BELL PLAT

PTN NW1/4 OF SECTION 21, T.21N., R.14E., W.M.
KITITITAS COUNTY, STATE OF WASHINGTON

SURVEY NOTES:

1. THIS MAP AND SECTION BOUNDARY INFORMATION IS FILED IN BOOK 31 OF SURVEYS, PAGE 89, UNDER AUDITOR'S FILE NUMBER 200600002.
2. THE PURPOSE OF THIS DOCUMENT IS TO PLAT LOT 9 OF THAT CERTAIN SURVEY AS RECORDED BY EASTSIDE CONSULTANTS INC. IN BOOK 31 OF SURVEYS, PAGE 89, UNDER AUDITOR'S FILE NUMBER 200600002.
3. KITITITAS COUNTY REFERS TO THE RECORD THAT A SUPPLY OF FRESH WATER EXISTS UNDER A GUARANTEE OR ASSURANCE THAT THERE IS A LEGAL RIGHT TO UNDERGROUND WATER WITHIN THE LAND DIVISION.
4. LOTS 1 AND 6 SHALL ACCESS SALMON LA SAC ROAD.



RECORDER'S CERTIFICATE 20010222-0067
Filed for record this 22nd day of February, 2006 at page 167 of the request for plat in book 31 of surveys, page 89, at the request of
DAVID P. NELSON
Surveyor's Name
County Auditor
Kittitas County Auditor

SURVEYOR'S CERTIFICATE

This map correctly represents a survey made by me or under my direction, conforming with the requirements of the Survey Law of the State of Washington, Chapter 65A RCW, in the request of DAVID P. NELSON, Surveyor's Name, at NEWPORT, HILLS, LAND CO., INC., in Kittitas County, Washington, on 02/22/06.
DAVID P. NELSON
Surveyor's Name
Certificate No. 18082



108 EAST 2ND STREET
CLE ELUM, WA 98922
PHONE: (509) 874-7433
FAX: (509) 874-7419

ANNA BELL PLAT

LOCATED IN SECTION 21, T. 21N., R. 14E., W.M.
KITITITAS COUNTY, STATE OF WASHINGTON

DWN BY	DATE	JOB NO.
G. WEISER	08/06	01515
D. NELSON	SCALE	SHEET
	1"=200'	1 OF 2



Figure 1. Lot 6, Ball Property, Anna Bell Plat, Kittitas County, Wa

- LEGEND**
- ☒ CALCULATED SETBACK CORNER COMMON TO FOUR SECTIONS
 - ☒ CALCULATED QUARTER CORNER COMMON TO TWO SECTIONS
 - WITNESS CORNER
 - SET 1/2" REBAR
 - 1/2" REBAR
 - APPROXIMATE 100' YEAR FLOOD LUG

Figure 1. Vicinity Map and Plat Layout

SEC. 21, T.21N., R.14E., W.M.

VICINITY MAP
N.T.S.

APPROVALS

KITITITAS COUNTY DEPARTMENT OF PUBLIC WORKS
EXAMINED AND APPROVED THIS 17th DAY OF September, A.D. 2006
John C. Johnson, C. Eng.
DIRECTOR OF DEPARTMENT OF PUBLIC WORKS

KITITITAS COUNTY HEALTH DEPARTMENT
I HEREBY CERTIFY THAT THE ANNA BELL PLAT HAS BEEN EXAMINED BY ME AND I FIND THAT THE SEWAGE AND WATER SYSTEM HEREBY SHOWN DOES MEET AND COMPLY WITH ALL REQUIREMENTS OF THE COUNTY HEALTH DEPARTMENT
DATED THIS 17th DAY OF September, A.D. 2006
Paula M.D.
KITITITAS COUNTY HEALTH DEPARTMENT

CERTIFICATE OF COUNTY PLANNING DIRECTOR
I HEREBY CERTIFY THAT THE ANNA BELL PLAT HAS BEEN EXAMINED BY ME AND I FIND THAT IT CONFORMS TO THE COMPREHENSIVE PLAN OF THE KITITITAS COUNTY PLANNING COMMISSION.
DATED THIS 17th DAY OF September, A.D. 2006
Alvin Campbell
KITITITAS COUNTY PLANNING DIRECTOR

CERTIFICATE OF KITITITAS COUNTY TREASURER
I HEREBY CERTIFY THAT THE TAXES AND ASSESSMENTS ARE PAID FOR THE PRECEDING YEARS AND FOR THIS YEAR IN WHICH THE PLAT IS NOW TO BE FILED.
PARCEL NO. 21-14-21000-0015
DATED THIS 17th DAY OF September, A.D. 2006
Amber A. Dallas
KITITITAS COUNTY TREASURER

CERTIFICATE OF KITITITAS COUNTY ASSESSOR
I HEREBY CERTIFY THAT THE ANNA BELL PLAT HAS BEEN EXAMINED BY ME AND I FIND THE PROPERTY TO BE IN AN ACCEPTABLE CONDITION FOR PLATTING. PARCEL NO. 21-14-21000-0015
DATED THIS 19 DAY OF September, A.D. 2006
Ray Ormsby
KITITITAS COUNTY ASSESSOR

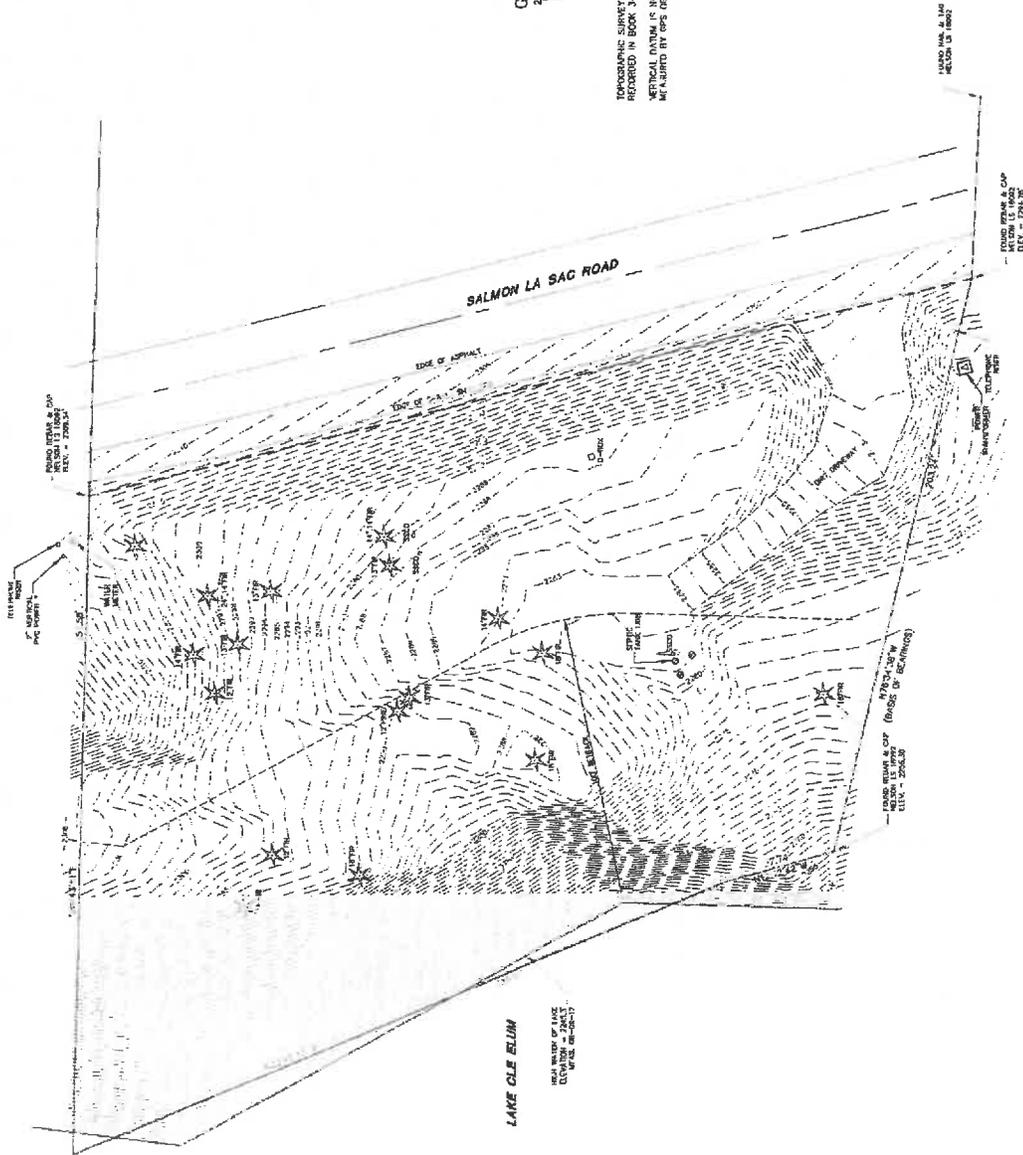
KITITITAS COUNTY BOARD OF COMMISSIONERS
EXAMINED AND APPROVED THIS 17th DAY OF September, A.D. 2006
David B. Bowden
CHAIRMAN

BOARD OF COUNTY COMMISSIONERS
KITITITAS COUNTY, WASHINGTON
BY: *David B. Bowden*
CHAIRMAN

Theresa K. Jarnal
CLERK OF THE BOARD

NOTICE: THE APPROVAL OF THIS PLAT IS NOT A GUARANTEE THAT FUTURE PERMITS WILL BE GRANTED.

PORTION OF SW 1/4, SW 1/4, SEC. 21, T. 21 N., R. 141 E., W.M., KITTITAS COUNTY, WASHINGTON



GRAPHIC SCALE
 0 10 20
 (IN FEET)
 1 inch = 100 ft.

TOPOGRAPHIC SURVEY OF LOT 8, KITTITAS COUNTY BOUNDARY LOT ADJUSTMENT
 RECORDED IN BOOK 34 OF SURVEY AT PAGE 13A, RECORDING NO. 201010000A,
 VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988/2011 (NAVD88/21)
 MEASURED BY GPS OBSERVATION

TOPOGRAPHIC SURVEY
 FOR
 JIM BALL



ROTHENBERG SURVEY SERVICES
 15500 14th Ave NW
 Issaquah, WA 98027
 (425) 417-5377

DATE	06-11-17
DRAWN BY	KJTB

Figure 3. Ball Property, Topography and Tree Mapping



Figure 4. Ball Property, GPS mapping from Site Assessment, Key to Photographs

BALL RESIDENCE

18401 Salmon La Sac Rd
 Round, WA

DATE: 3.20.19
 PHASE: AGENCY REVIEW
 DESCRIPTION:
 Unified Site Plan

A1.1

ZONING CODE NOTES
 ZONE: RURAL RECREATION
 USES: PERMITTED (SEE SCHEDULE)
 BUILDING HEIGHT (SHOULDER):
 PERMITTED - 35' ABOVE AVERAGE GRADE
 AVERAGE GRADE = (A) - 2202.3' +
 (B) - 2282.1' +
 (C) - 2284.1' +
 (D) - 2296.0' +
 (E) - 2296.5' +
 (F) - 2298.0' +
 (G) - 2298.0' +
 (H) - 2298.0' +
 (I) - 2298.0' +
 (J) - 2298.0' +
 (K) - 2298.0' +
 (L) - 2298.0' +

PERMITTED HEIGHT = 2202.3' + 35' = 2237.3'
 PROPOSED GROUND FLOOR ELEVATION = 2280.0'
 PROPOSED ROOF PEAK ELEVATION = 2255.5' OK

BUILDING SETBACKS:
 FRONT - 25'
 SIDE - PER 173.06.200(7):
 CONCRETE OR STONE OR BRICK: To ensure new single-family dwellings have similar, though not necessarily equivalent, shoreline views as existing development, a common fire shoreline buffer - determined by averaging the buffers for each of the adjacent residential dwelling units on the shoreline - may be utilized for the development of a single-family dwelling.

ADJACENT DWELLINGS (NORTH)
 18301 SALMON LA SAC ROAD
 PN 983180
 SHORELINE BUFFER = 115'

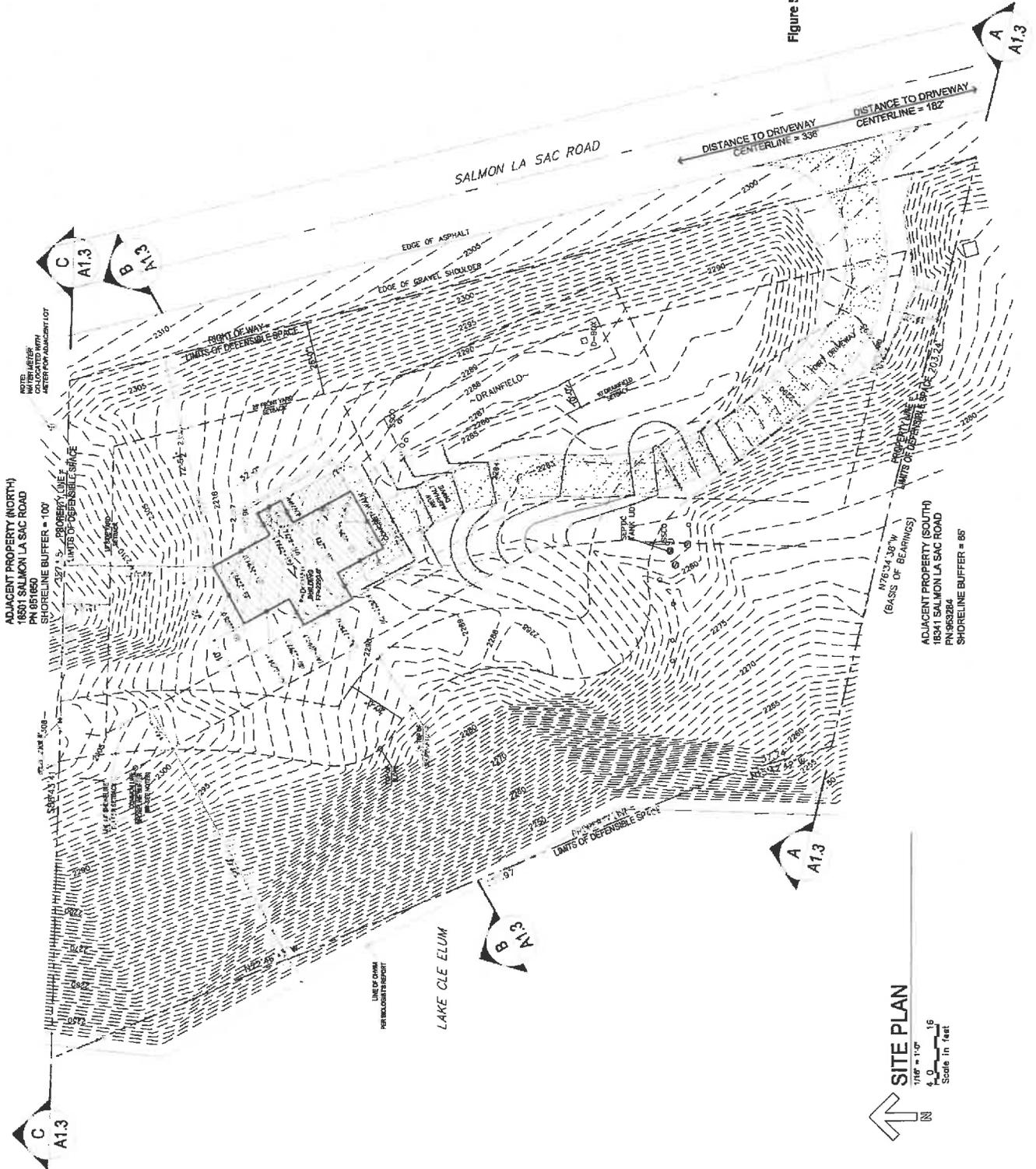
ADJACENT DWELLINGS (SOUTH)
 18341 SALMON LA SAC ROAD
 PN 983284
 SHORELINE BUFFER = 65'

COMMON LINE SHORELINE BUFFER
 115' + 65' = 180'
 180/2 = 90'

PER 173.06.200(7) d:
 There is less than fifteen (15) feet of elevation difference between the lowest lot and adjacent lots and less than two hundred fifty (250) cubic yards of grade or fill is required to accommodate use of the common fire shoreline buffer...

PROPOSED AVERAGE GRADE (SEE ABOVE) = 2282.03'
 AVERAGE GRADE AT NORTH PROPERTY LINE (PLN) = 2288.7'
 2288.7' - 2282.03' = 6.67' OK
 AVERAGE GRADE AT SOUTH PROPERTY LINE (PLS) = 2278.9'
 2282.03' - 2278.9' = 3.13' OK

Figure 5 - Ball Property Site Plan



SITE PLAN
 1/16" = 1' 0"
 1" = 16'
 Scale in feet



BALL RESIDENCE

19401 Salmon La Sac Rd
 Ronald, WA

SUBMITTAL

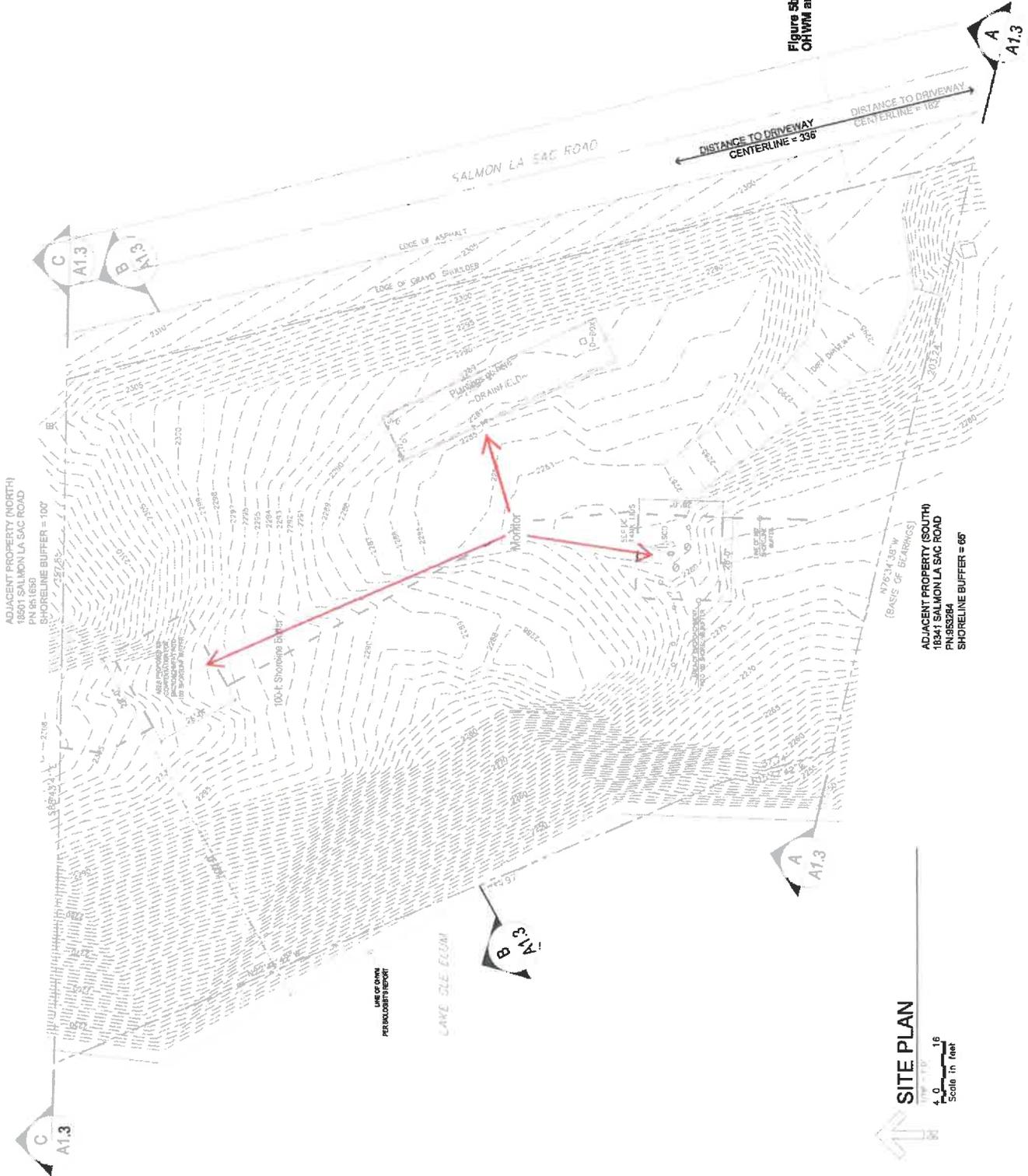
DATE: 3/21/19

PHASE: AGENCY/REPI

DESCRIPTION:
 SHORELINE BUFFER
 MITIGATION

A1.2

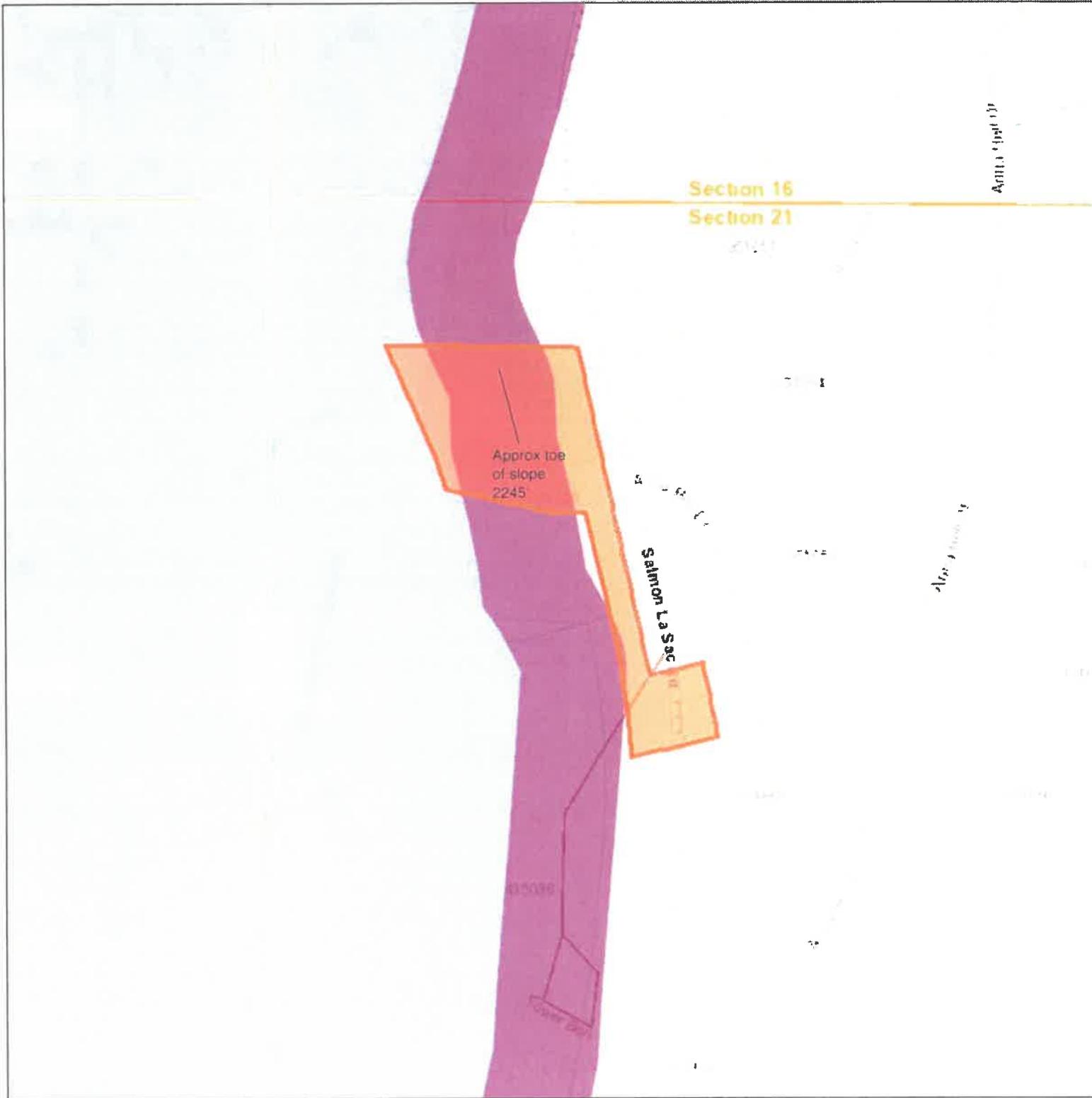
Figure 5b. Ball Property Mitigation Locations and
 CHWM and Buffers



SITE PLAN

Scale 1" = 160'

Shoreline map for PSA PSA-18-00194



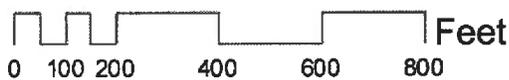
Date: 5/2/2018

1 inch = 376 feet
Relative Scale 1:4,514

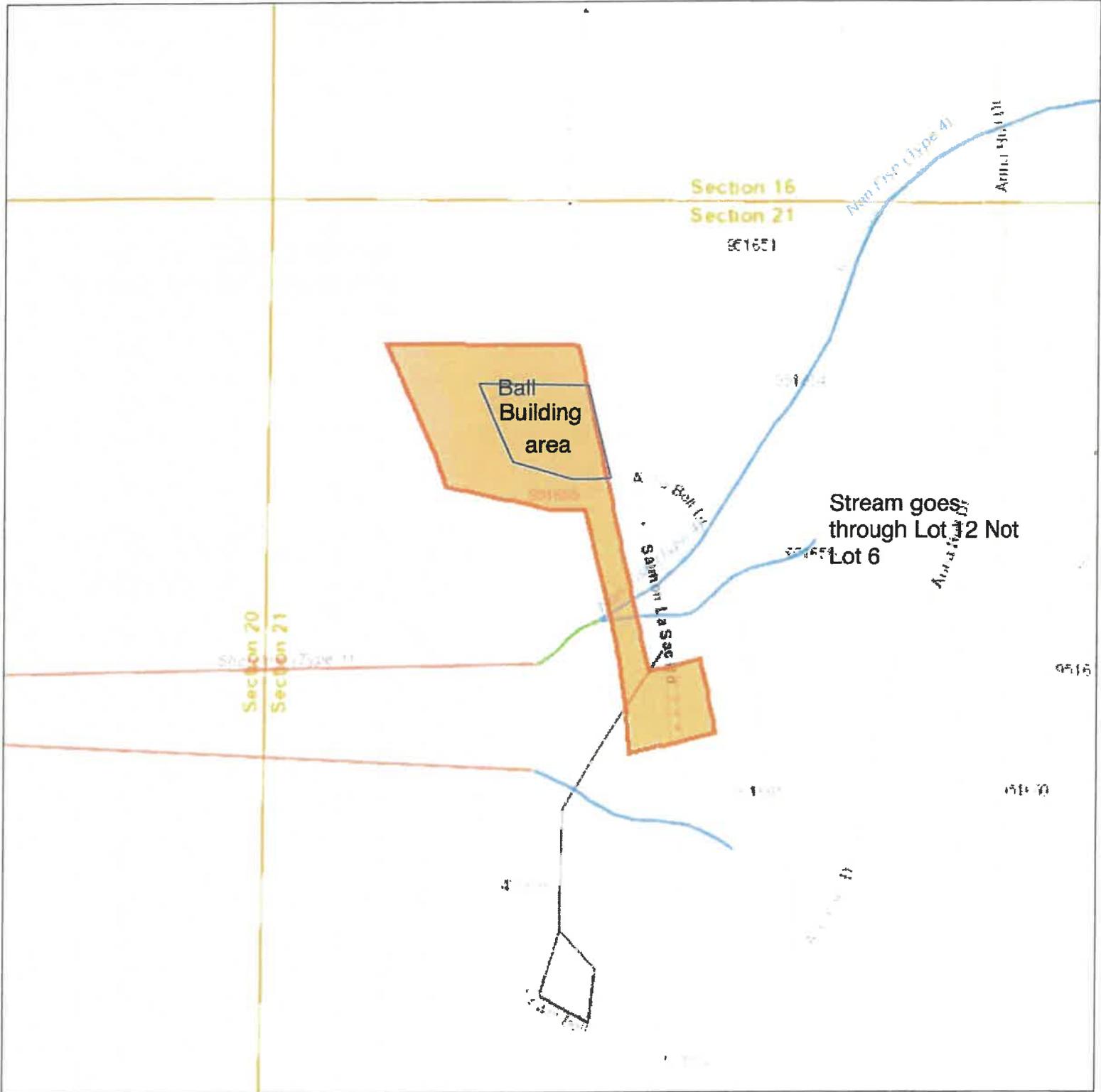
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Figure 7. Ball Property, Inaccurate Shoreline Map



Stream map for PSA PSA-18-00194



Date: 5/2/2018

1 inch = 376 feet
Relative Scale 1:4,514

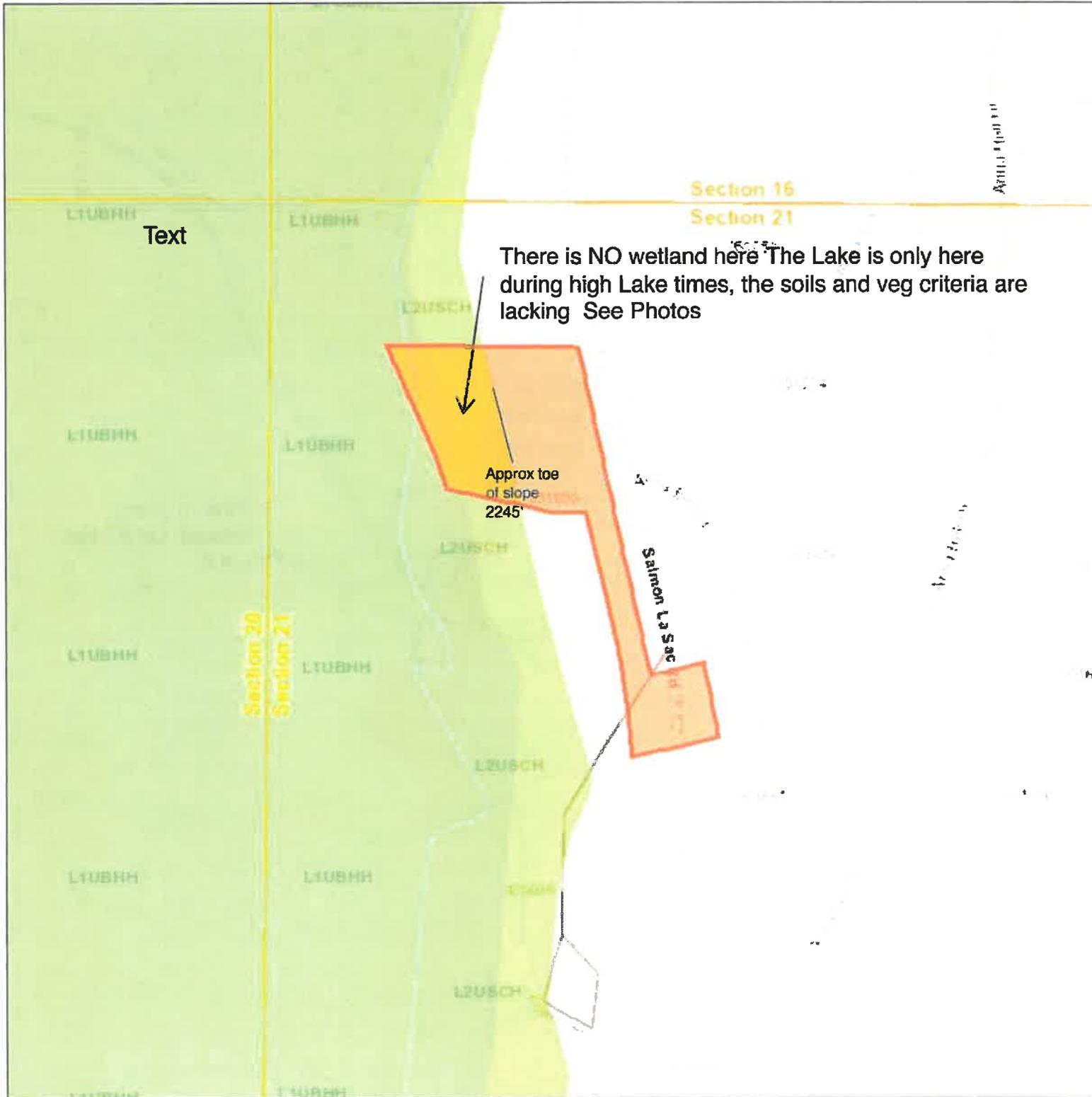
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Figure 8. Ball Property, Stream Map



Wetland map for PSA PSA-18-00194



Date: 5/2/2018

1 inch = 376 feet
Relative Scale 1:4,514

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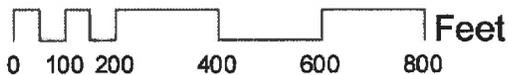


Figure 9. Ball Property, Inaccurate Wetland Map



Figure 10. Ball Property, Final OHWM Location on Aerial as seen on Figure 5.

