

Re: 4.2mb Timberton Veg Mgmt Plan for your review

Monday, May 3, 2010 7:58 AM

From: "Dan McShane" <mcshanedan@gmail.com>

To: "Harvey Portz" <harveyportz@yahoo.com>

I read over the the plan in regards to geology hazards and see no changes necessary.

Well done. What a gift you and your wife have given your community just as your about to leave.

I will print out hard copies of the geology hazard assessment report nad mail them later today.

Dan McShane

On Fri, Apr 30, 2010 at 11:34 AM, Harvey Portz <harveyportz@yahoo.com> wrote:

Good Morning Dan -

Attached please find the Timberton Village Homeowners Association's Vegetation Management Plan for your review. Please provide me with any comments at your earliest convenience as the Board will vote on the final plan on Monday, 3 May, 2010.

Thank you for your time and consideration.

Regards -

Harvey Portz
TVHA President
and
Jen Portz
VMC Chair

--- On Fri, 4/30/10, Dan McShane <mcshanedan@gmail.com> wrote:

From: Dan McShane <mcshanedan@gmail.com>

Subject: Re: Revised Map

To: "Harvey Portz" <harveyportz@yahoo.com>

Date: Friday, April 30, 2010, 8:29 AM

Great news all around. Congrats on the sale!

I can add a distance bar to the maps from the end of Leighbrook Lane to the management area on Figures 2, 4 and 5.

Dan McShane

On Fri, Apr 30, 2010 at 7:10 AM, Harvey Portz <harveyportz@yahoo.com> wrote:

Good morning Dan,

We worked through the veg management plan yesterday afternoon and the changes are being made now. I hope to get this revised document to you soon for a review, but I doubt

that there will be any problems with the document. Best news is that the joint Board/committee are happy with the document, so we should be able to approve it on Monday.

There was some discussion on your revised map of the special management area, and we would like to see some type of measurement from the street. This will allow the residents to see how close (or not) they are from the area. Can this be done?

I must also tell you that my wife and I have sold our home (YES!!!) and after the Monday Board meeting I will tender my resignation. Walter Leach is the Vice President and will be heading the Board to the best of my knowledge.

Thanks for all your efforts and all the best.

Harvey Portz

STRATUM GROUP

P.O. Box 2546, Bellingham, WA 98225

Phone (360) 714-9409

May 6, 2010

Timberton Village Home Owners Association
P.O. Box 65218
Port Ludlow, WA 98365

Re: **Geology Hazard Assessment
For Vegetation Management**
Timberton Village Home Owners Association
Port Ludlow, Washington

Dear TVHA:

Stratum Group is pleased to present the results of our geology hazard assessment of the slopes around Timberton Village. This geology hazard assessment was conducted to determine the geologic hazards on the slopes within Timberton Village in regards to vegetation management on the slopes. It is our understanding that this geology hazard assessment will be utilized in the development of a vegetation management plan (VMP) consistent with Jefferson County's Critical Areas Ordinance.

This evaluation included a visual inspection of the slopes on the site and vicinity, excavation of shallow hand dug test pits to determine the underlying geologic units and soil conditions, review of available geologic mapping in the area, review of LIDAR (light detecting and ranging) imagery of the area, review of previous geotechnical investigations for development of the site and a review of the report referred to as the Cherney report.

The property is located on the east side of the Olympic Peninsula south of Port Ludlow. The properties evaluated included the parcels owned by Timberton Village Tract A, B, C, D, E, I, J and K. The location of the properties is indicated on Figure 1.

Based on the site inspection, review of available information and my professional judgment, it is my opinion that slopes on the subject property are stable with the exception of the steep slope on the far west side of Tract A adjacent to an unnamed stream. On the steep slope on the west side of Tract A as indicated on the site map at least one mature tree per 30-foot center should be left in place and understory vegetation should not be disturbed in this area.

SCOPE OF SERVICES

The scope of our services included the following:

- 1) Conducted a site visit to visually inspect the subject property including slope conditions and relevant conditions in the vicinity of the property.
- 2) Observed surface soil conditions on the slopes of the subject property and vicinity.
- 3) Prepared this report summarizing my findings, including an evaluation of the stability in regards to vegetation management on the slopes and recommendations for further investigation, if necessary.

GENERAL GEOLOGY

Northwestern Washington has been occupied by continental glaciers at least four times during the Pleistocene Epoch (1.6 million to 10,000 years ago). During these glacial and accompanying interglacial periods, the underlying geologic units were eroded. Glacial related deposits were deposited over the underlying units in various places on and in the vicinity of the subject property.

The Geologic Map of Surficial Deposits in the Seattle 30' by 60' Quadrangle, Washington (Yount, Menard and Dembroff, 1993) indicates that the subject property and vicinity is underlain by bedrock. The Geologic Map of the Uncas –Port Ludlow Area Jefferson County, Washington (Hanson, 1976) indicates that the subject property and vicinity are underlain by basalt bedrock. The Bedrock Geologic Map of the Seattle 30' by 60' Quadrangle, Washington (Yount and Grower, 1991) indicates that the property and vicinity are underlain by Crescent Formation basalt. The Crescent Formation basalts erupted along the margin of North America approximately 55 to 47 million years ago. Most of the lava erupted below sea level but portions were above sea level. The formation was later uplifted approximately 20 million years ago when the Olympic subduction sediments were thrust upwards onto the North American margin.

My observations are consistent with the above described mapping. Bedrock consisting of basalt outcrops at numerous places on the site and is present as shallow depths elsewhere. The bedrock is not deeply weathered and very little clay has developed within the soil or over the bedrock. This is consistent with the area having been eroded by glacial ice during the last glacial period. Minor areas of glacial outwash, till and ice wasting deposits are present in a few areas on the property.

SPECIFIC SITE OBSERVATIONS

The subject properties consist of tree and brush covered areas outside of the home and yard areas in and around Timberton Village. The location of the subject property is indicated on Figure 1, Site Vicinity Map. A site plan showing the location of each of the common area tracts with the exception of Tract B which is located to the east of map is provided on Figure 2. Figure 3 shows all of the parcels with the common area Tracts labeled on a LIDAR map of the area. The LIDAR is a shaded relief map of the area. General area wide site observations are presented below with specific observations for each tract provided under subheadings following the general area observations.

Timberton Village consists of a residential home development accessed from Paradise Bay Road via Timberton Drive. The development is located on the upper part of a ridge such that land slopes away from the development to the west, north and east. Bedrock highs and a split with the east side of the ridge area create additional slopes within the development area. The properties inspected for slope stability are the common areas outside of the residential development lots.

Slopes range from very gentle to as steep as 45 degrees. The slopes are underlain primarily with soils consisting of angular bedrock fragments; however, outcrops of bedrock are present as well as very minor amount of glacial sediment. Slopes are generally tree covered with a mixture of western red cedar, Douglas fir, western hemlock, big leaf maple and red alder and an understory of a variety of brush depending on shading and past disturbance. Trees have been cut down on the slopes in the past as evidenced from stumps and aerial photographs from the past. A few areas are free of trees and are brush covered with some areas that area grass-covered.

Minor soil creep is evident on some of the steeper slopes, but no evidence of landslides or rapid erosion is present on any of the slopes on the site. A few storm drains discharge directly onto the slopes; however, most of the storm drainage from the development is routed into three storm water ponds that are located on gentle slope areas on the common tracts. No erosion or slope stability problems were noted at any of these discharge points. Some minor erosion is taking place on the steep entrance to the storm water pond located on Tract C.

Test pits and exposed soil did not encounter any indications of the development of residuum soils with clay layers developed above the bedrock. This finding is consistent with the soil and bedrock having been eroded during the last glacial period such that residuum soils with a clayey horizon are not present on the property.

TRACT A

Tract A is located on the west side of the development. A sketch map of Tract A is provided in

Figure 5 with the pertinent features indicated.

Slopes on Tract A below the north end of the development are on the order of 37 degrees. These slopes are underlain by fractured bedrock and except for minor surface soil creep there is no evidence of slope movement in this area. A storm water pond that serves a portion of the residential development is located on the northern portion of tract A on an area of gentle slopes.

Outside of the 37 degree slope at the north end of the development, most of Tract A has slopes that are less than 10 degrees.

The only other steep slope on Tract A is located on the slope immediately above the stream that bounds the west side of Tract A. This slope as steep as 45 degrees and in places are over steep from stream incision. Minor shallow soil failures should be expected on these slopes and the slope is potentially unstable to unstable.

TRACT B

Tract B is located to the east of the development and is mostly used as a storm water pond site. Slopes outside the pond area are grass covered. No unstable slopes are present within this tract.

TRACT C

Tract C is located on the east side of the development. Slopes as steep as 45 degrees are located to the east of the northern portion of the development on Tact C. These slopes are tree covered and brush covered with a mix of trees. Trees growing on this steep slope are mostly very straight. Soils consist of fracture bedrock fragments. Slope movement consists of very minor soil creep and old root throw sites from locations where trees toppled in the past.

A cut slope associated with Paradise Bay Road is located at the north end of Tract C east of the nose of the ridge above. This cut slope is cut into basalt bedrock and is partially grown over with a mix of trees and brush. The slope above this area has been partially cleared of trees in the past and is underlain by fractured bedrock and bedrock outcrops. Except for minor ravel of loose material on the cut slope, the slope appears stable.

A portion of Tract C extends up a valley like feature of convergent topography. No unstable slopes are present within this valley area. A storm water pond that serves a portion of the development is located at the end of this valley and some surface water flow over compact soils that appear to be glacial derived is located in this area. Very minor down cutting is present on the area where the stream flows across the steep slope down to the storm water pond.

The portion of Tract C between Timberton Drive and the development has slopes as steep as 40 degrees. An old road traverses across this slope and has been cut through bedrock at several locations. Slopes throughout this area are stable.

TRACT D

Tract D is a parcel located on top of the ridge within the development and has a trail and gazebo located on it for views. This tract is underlain primarily with bedrock and bedrock is exposed on the surface at many locations. No unstable slopes are associated with this tract.

TRACT E and F

Tract E and F are small tracts at the north end of Timber Meadow Drive. The slope slopes down to the north towards Tract A and is used to route storm water down to the storm water pond below. No erosion or surface water flow is evident on the site and minor volumes of storm water that do flow onto the site readily have infiltrated into the ground as the slope is underlain by fracture bedrock soil.

TRACT I

Tract I is located between Timberton Drive and the south portion of the residential development. The slope is on the order of 30 degrees and is traversed by a pipe/road. The slope is grass covered with a stand of trees on the lower slope as well as a stand of mature trees on the southern portion of the tract. The slope is stable and is underlain by a mix of fractured bedrock soil and glacial derived soil.

TRACT J

Tract J is located to the south and southwest of the developed areas. Except for a small steep slope underlain by bedrock soils at the south end of the tract, slopes in this tract are very gentle to nearly level.

TRACT K

Tract K is a forested tract with gentle slope on the south side of the dead end of Timberton Drive. No slope problems are present on this gentle sloped area.

CONCLUSIONS AND RECOMMENDATIONS

Based on my observations there are no landslide hazards on any of the tracts with the exception of the steep slope immediately above the stream area on the west side of Tract A. This location labeled as a Landslide Hazard Area on Figure 2 and 5 and as a Special Management Area on Figure 4. Minor shallow soil failures should be expected in this area. On the steep slope on the west side of Tract A within the Special Management Area at least one mature tree per 30-foot center should be left in place and understory vegetation should not be disturbed in this area. Because of the proximity to the stream other considerations may be required regarding vegetation management in this area.

Other than the Special Management Area, slopes on the subject tracts are stable and no landslide hazards are present. Soil movement on the steep slopes will be limited to very minor soil creep associated with freeze thaw and to root throw from trees falling and minor raveling in areas of exposed soil.

The erosion hazard on the slopes is minimal as well as long as storm water remains distributed as it is currently. Point discharge locations from roof drains and from street drains such as the discharge onto the upper part of Tract C have not been causing erosion problems and storm water is readily infiltrating into the ground at those locations. Soils throughout the steep slopes are generally well drained consisting primarily of fractured bedrock fragments with little or no clay. Some minor areas of silty to clayey soils associated with glacial deposits are present on areas with gentle slopes as well as on the steep slope within the Special Management Area of Tract A.

Based on my observations of existing slope conditions, past tree removal on portions of the slopes, and soil conditions, it is my opinion that tree removal will not have adversely impact the stability of the slopes on any of the tracts with the exception of the steep slope on the west side of Tract A immediately above the riparian area as indicated on Figures 4 and 5.

Based on my observations of the geology of the steep slopes and other areas on the common tracts, it is my opinion that the tree removal and trimming will not have a negative impact on the long-term slope stability of the slopes on any of the tracts except for the bluff.

The loss of canopy coverage due to tree removal will not have a significant impact as soils are well drained and perched water zones on the bluff slope causing slope stability problems is not an issue at this site. While more rain water will reach the ground surface with trees removed and there will be less evapotranspiration from tree removal, particularly evergreens, it is my opinion that the addition increase of water to the soils will not impact slope stability or increase erosion at this site. In particular residuum soils containing clays that could act as a barrier for creating saturated soils are not present on any of the steep slopes. Rain water will infiltrate readily into the

subsurface through the fractured rock fragment soils and down into bedrock fractures and joints. A clay residuum soil was not observed at any locations between the upper permeable soils and the underlying bedrock.

Maintaining brush coverage on the slopes versus having grass or bare slopes will minimize the rate of soil creep. Other considerations besides geology conditions may influence the vegetation management plan. However, based on my geology hazard assessment of the common areas, the slopes are stable and vegetation management is not a factor on slope stability beyond influencing the rate of soil creep and root throw on steep slopes with the exception of the Special Management Area on the west side of Tract A.

Stratum Group appreciates the opportunity to be of service to you. Should you have any questions please contact our office at (360) 714-9409.

Sincerely yours,
Stratum Group



Dan McShane, L.E.G., M.Sc.
Licensed Engineering Geologist

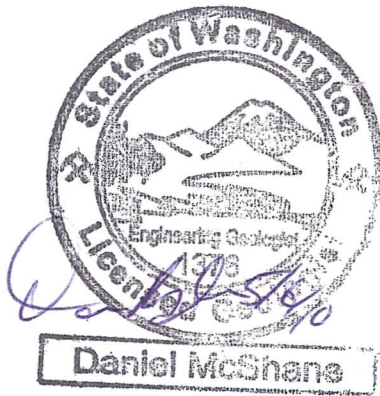
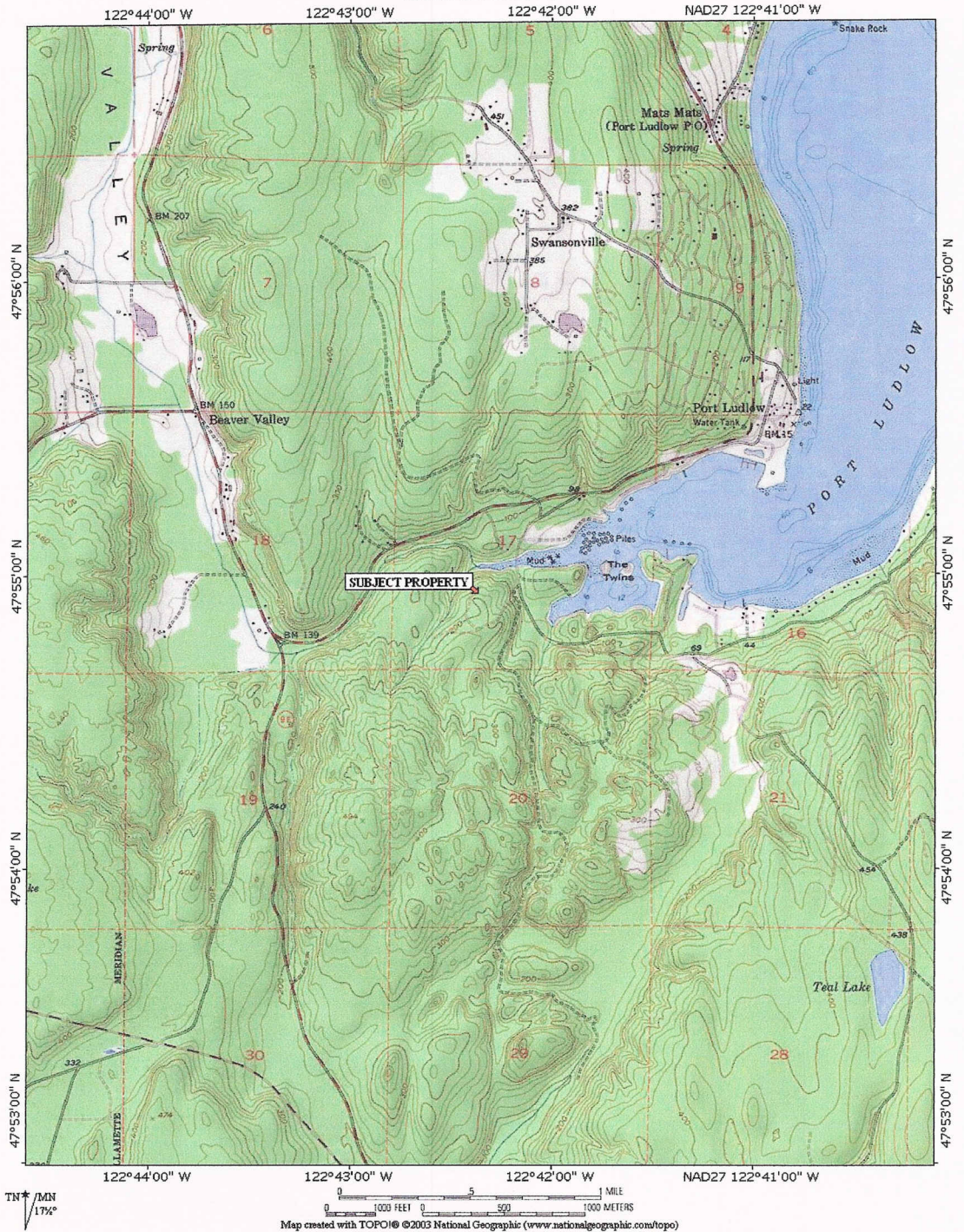
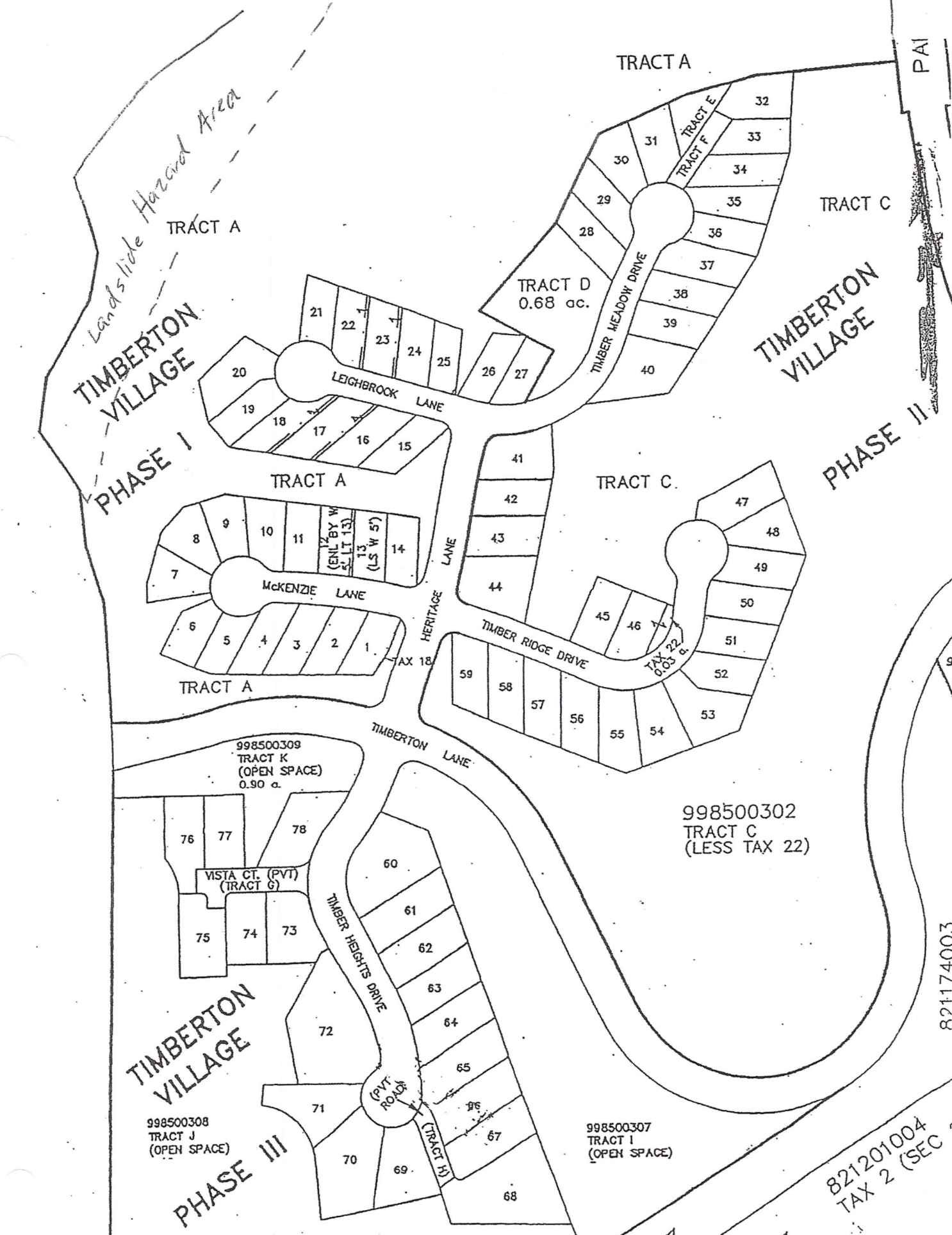


Figure 1. Site Vicinity Map





(NW 1/4 20 - 28N - 1E)

Figure 2

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821201004
TAX 2 (SEC

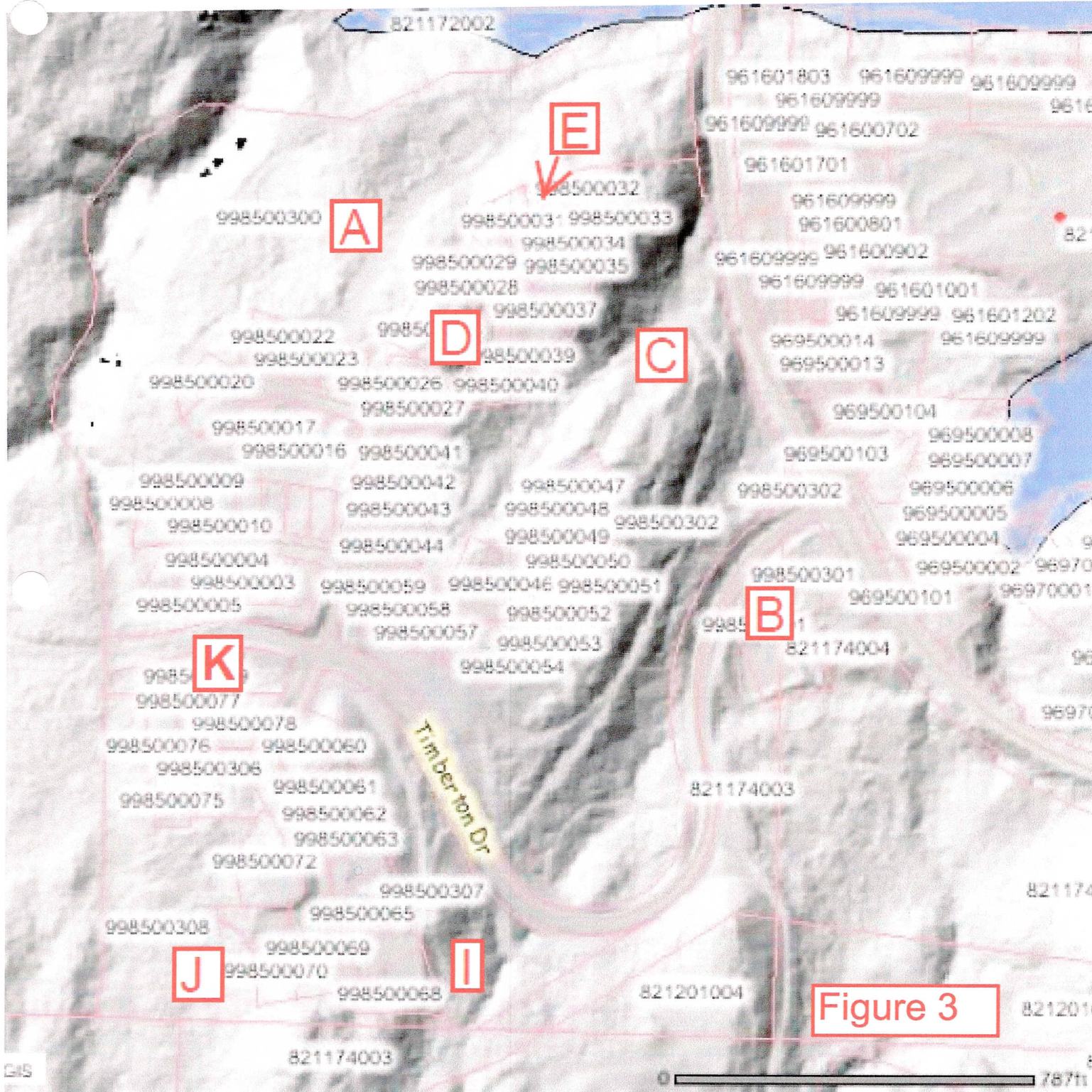
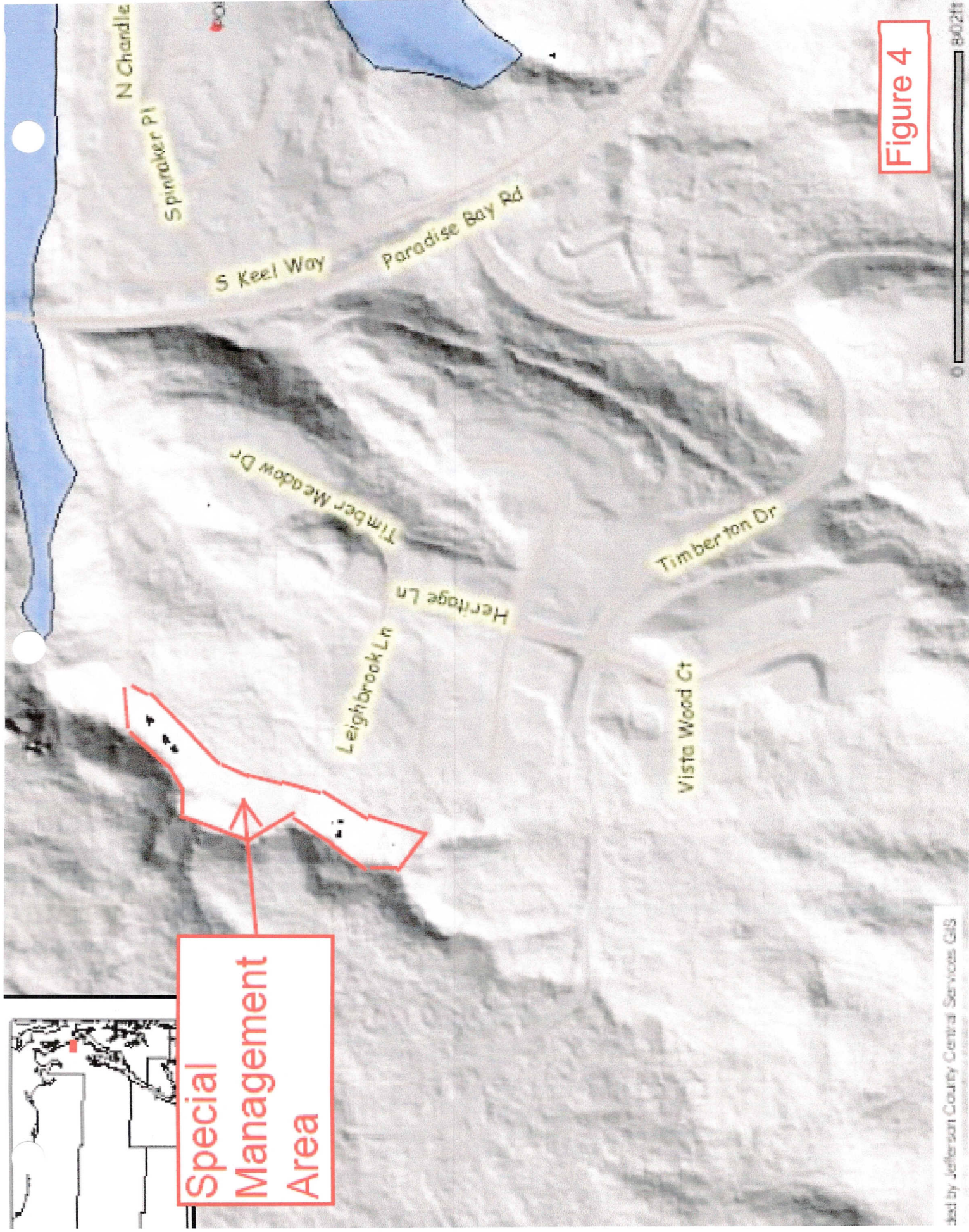


Figure 3



**Special
Management
Area**

Figure 4



Figure 5 sketch map of Tract A



Scale and Locations approximate
 1 inch = 200 feet

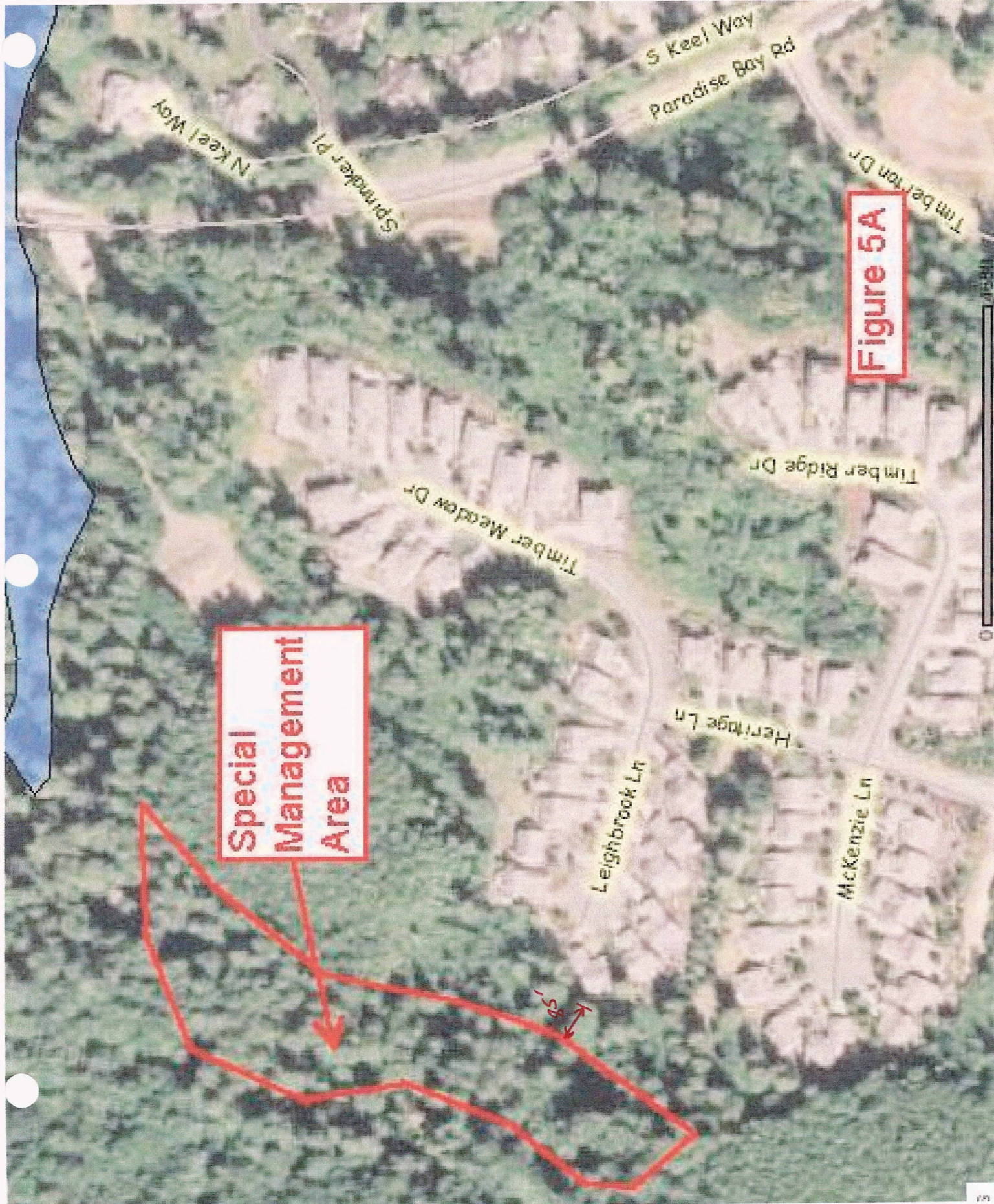


Figure 5A

Special Management Area

SP-1