

HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS
ROAD EVALUATION REPORT



PART A: *Part A may be completed by the applicant*

Applicant Name: Talking Tree Farms APN: 214-234-006

Planning & Building Department Case/File No.: CUP16-089

Road Name: Tosten Rd. *(complete a separate form for each road)*

From Road (Cross street): Bear Butte Rd.

To Road (Cross street): Tosten Rd.

Length of road segment: 1.3 miles Date Inspected: 5/1/18

Road is maintained by: County Other
(State, Forest Service, National Park, State Park, BLM, Private, Tribal, etc)

Check one of the following:

Box 1 The entire road segment is developed to Category 4 road standards (20 feet wide) or better. If checked, then the road is adequate for the proposed use without further review by the applicant.

Box 2 The entire road segment is developed to the equivalent of a road category 4 standard. If checked, then the road is adequate for the proposed use without further review by the applicant.

An equivalent road category 4 standard is defined as a roadway that is generally 20 feet in width, but has pinch points which narrow the road. Pinch points include, but are not limited to, one-lane bridges, trees, large rock outcroppings, culverts, etc. Pinch points must provide visibility where a driver can see oncoming vehicles through the pinch point which allows the oncoming vehicle to stop and wait in a 20 foot wide section of the road for the other vehicle to pass.

Box 3 The entire road segment is not developed to the equivalent of road category 4 or better. The road may or may not be able to accommodate the proposed use and further evaluation is necessary. Part B is to be completed by a Civil Engineer licensed by the State of California.

The statements in PART A are true and correct and have been made by me after personally inspecting and measuring the road.

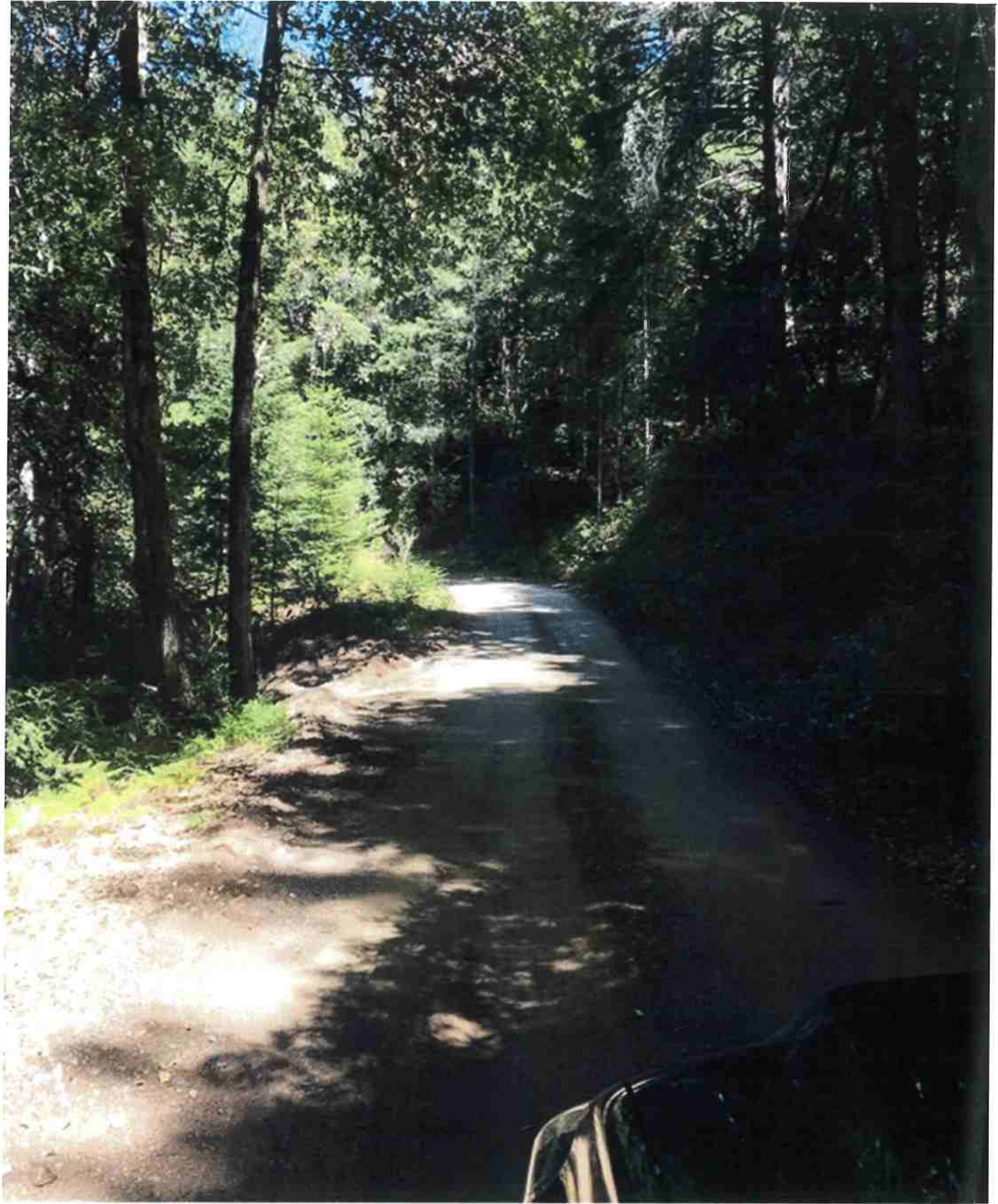
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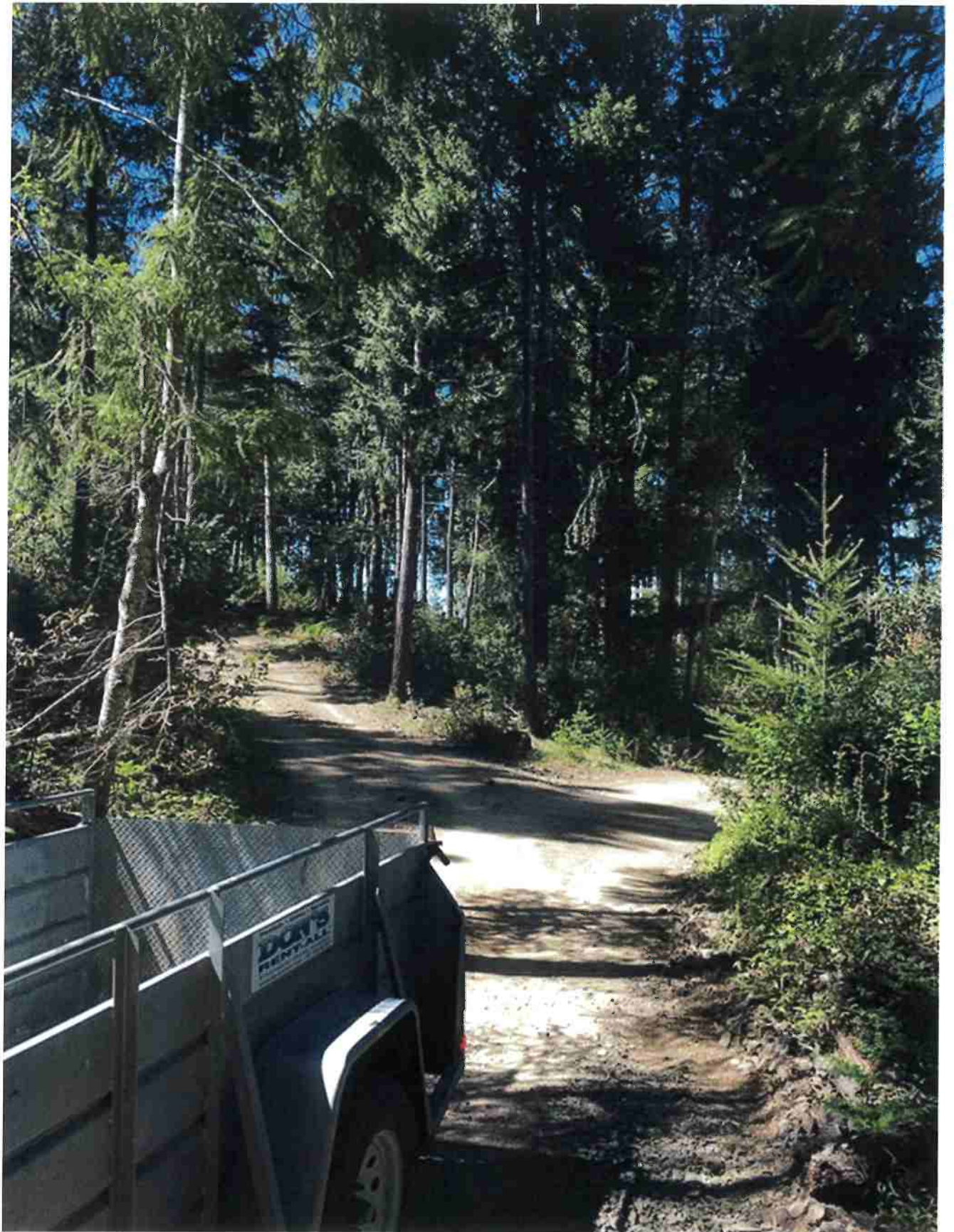
Date 5-4-18

Name Printed KEVIN BOURQUE

Important: Read the instructions before using this form. If you have questions, please call the Dept. of Public Works Land Use Division at 707.445.7205.











ROADWAY ASSESSMENT REPORT

SITE ACCESS ROAD(S)

**French Road
Miranda, California
APN: 214-234-006
and
APN: 214-234-007**

**CLIENT:
Kevin Bourque
Post Office Box 610
Fortuna, CA 95540**

**September, 2018
Josh McKnight, P.E.
Job #756.05**



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ATTACHMENT 7: WATERSHED RESOURCE PROTECTION PLAN FOR APN 214-234-006

Introduction

Trinity Valley Consulting Engineers (TVCE) was contracted by Kevin Bourque. (Applicant) to perform an evaluation of the access roadways leading to and throughout the above referenced property. This evaluation is in response to the roadway certification required by the County of Humboldt in association with a cannabis cultivation license application. The purpose of this evaluation is to determine the roadway's adequacy for continued use and potential for effects on stormwater (water quality). The following is a summary of the findings, conclusions, and recommendations.

Project Description

The project is located 3.5 miles south of the community of Miranda, California (See *Attachment 1, Project Location Map*). The project at this location is the evaluation of existing roadways used to access Two subject projects that are located on adjacent properties. The purpose of this evaluation is to determine whether the roadways are adequate for the intended use. The roadways are broken up by category, sections and the descriptions of the roadways and their uses are as follows (See *Attachment 3, Map Points Map*):

County Road Off Property Road Access Roadway (Gibney Drive): This roadway provides access from Highway 101 to the access road of the subject property and is used to access surrounding parcels by residences and for logging operations. Gibney Drive is a paved county road and is the starting point for the Road Evaluation Assessment Report.

Off property Access Roadways: The proposed project sites are accessed by single lane access roads which appear to have originally been utilized to facilitate logging operations and to access neighboring parcel residences. The three road is in this category are:

1. **Access Roadway French Road:** This road is the access road from Gibney Drive to Road 3.
2. **Access Roadway 3:** This road is the access road French Road to Road 4.
3. **Access Roadway Road 4:** This road is the access road for a residence and two cultivation projects on the neighboring parcels (APNs: 214-234-006 and 214-234-007).

On property Access Roadways: The proposed project sites within the property are accessed by single lane access roads which appear to have originally been utilized to facilitate logging operations and to access a parcel residence to the north of APN: 214-234-006 (see *Attachment 2, Road Maps, On Property Roads*). On Property



Access Roads are assessed in the Watershed Resource Protection Plans for each of the subject parcels.

In our investigation we evaluated the condition of stream crossing structures but did not perform hydraulic calculations to determine sizing per Rational or Magnitude and Frequency Methods. We only identified problem locations that have the capability of delivering sediment and limit passage of vehicular traffic.

Roadway Inspections

A Roadway Inspection was performed by TVCE on August 17th, 2018. Timberland Resources Company also performed an inspection that addresses road water quality issues in Watershed Resource Protection Plans (WRPP) that addresses the on-property roads and gives recommendations for both subject parcels (See *Attachment 6 and 7, Watershed Resource Protection Plans for APNs 214-234-006 and 007*). The WRPP documents recommendations are expected to be implemented and this document provides recommendations for deficient areas that the WRPP does not address.

The following is a summary of the observations derived from onsite inspections of access roadways:

Off Property Access Roadway French Road:

A summary of the exhibited characteristics for the French Road inspection can be viewed in Table 1, Summary of Off Property Access Roadway, French Road.

Table 1. Summary of Off Property Access Roadway, French Road.

Roadway Width:	Approximate 14' width
Shoulder Width:	2-10'
Surface:	Gravel
Drainage:	Inboard ditches/Out sloping
Watercourse Crossings:	6 Watercourse Crossing
Length:	1.35 Miles
Slope:	0 % to 24 %
# of Sections with 16%<Slope >20%:	6 sections with slopes between 16 % to 20 %
# of Sections with 20<Slope >24:	3 sections with slopes between 20 %-24 %

These roadways were inspected and appear to be generally in good condition. The access from Gibney Drive is equivalent to a Category IV road and is the starting point of the road evaluation. The inboard ditch of French Road is well maintained, and the road has a



good prism and good drainage. There were six sections of roadway with slopes that ranged from 16-20% and three sections of roadway where slopes ranged 20-24%. Eight turnouts on this section are unusable by larger vehicles due to uneven grown due to accumulation of grading spoils and one is overgrown vegetation (See *Attachment 3, Road Point Map* for locations of associated road points and see *Attachment 4, Road Point Figures with Descriptions* for a more detailed description of impacted areas).

Off Property Access Roadway Road 3:

A summary of the exhibited characteristics for the Road 3 inspection can be viewed in **Table 2, Summary of Off Property Access Roadway, Road 3.**

Table 2. Summary of Off Property Access Roadway Road 3.

Roadway Width:	Approximate 14' width
Shoulder Width:	2-10'
Surface:	Gravel
Drainage:	Inboard ditches/Out sloping
Watercourse Crossings:	No Watercourse Crossing
Length:	1.58 Miles
Slope:	0% to 24%
# of Sections with 16%<Slope >20%:	0 sections with slopes between 20 %-24 %
# of Sections with 20<Slope >24:	6 Sections with slopes between 20 %-24 %

These roadways were inspected and appear to be generally in good condition. The inboard ditch of Road 3 is well maintained and the road has a good prism with good drainage. There were three sections of roadway where the slopes ranged from 16-20% and five sections of roadway where slopes ranged 20-24%. Eleven turnouts on this section are unusable by larger vehicles due to uneven grown due to accumulation of grading spoils and three is overgrown vegetation. One drainage relief culvert (road point 82) has debris deposited in the inlet (See *Attachment 3, Road Point Map* for locations of associated road points and see *Attachment 4, Road Point Figures with Descriptions* for a more detailed description of impacted areas).

Off Property Access Roadway Road 4:

A summary of the exhibited characteristics for the Road 4 inspection can be viewed in **Table 3, Summary of Off Property Access Roadway, Road 4.**

These roadways were inspected and appear to be generally in good condition. The inboard ditch of Road 3 is well maintained, and the road has a good prism and good



drainage. There were three sections of roadway where the slopes where ranged from 16-20% and five sections of roadway where slopes ranged 20-24%. Two turnouts on this section are unusable by larger vehicles due to uneven ground due to accumulation of grading spoils and thirteen are overgrown with vegetation and have accumulated grading spoils or debris (See *Attachment 3, Road Point Map* for locations of associated road points and see *Attachment 4, Road Point Figures With Descriptions* for a more detailed description of impacted areas).

Table 3. Summary of Off Property Access Roadway, Road 4.

Roadway Width:	Approximate 12' width
Shoulder Width:	2-10'
Surface:	Gravel
Drainage:	Inboard ditches/Out sloping
Watercourse Crossings:	7 Watercourse Crossing
Length:	0.53 Miles
Slope:	0 % to 24 %
# of Sections with 16%<Slope >20%:	3 sections with slopes between 16 %-20 %
# of Sections with 20<Slope >24:	5 Sections with slopes between 20%-24 %

Evaluation

The following is an evaluation of the above referenced roadways based on the noted observations:

Off Property State Road Access Roadways Segment (Gibney Drive):

This roadway is in good condition with good drainage off of the roadway surface while also providing frequent areas for turnouts. Paved surfacing is adequate. This roadway meets grade standards for a Category IV roadway in width and slope. Gibney Road is owed and maintained by Humboldt County.

Access for Access Roadways (French Road):

The first 30' of French Road is not paved. The access road provides access to the project site from Gibney Drive to Road 3. This road meets slope and width requirements of a Category IV roadway at the access point to Gibney Drive. Gravel surfacing is adequate with some areas that require minor repairs. Two Drainage relief culverts (map points 1 and 15) need cleaning of debris at the inlet or outlet. Eight turnouts on this section need to be regraded with one also needing regrading with vegetation cleared. This roadway is in good condition. Frequent water breaks, culverts and ditches that offers good drainage



off the roadway surface while also providing frequent areas for turnouts. There are nine sections of road with slope that are greater than 16% and need added rock surfacing added to the steeper road surfaces.

Off Property Access Roadway Road 3:

This roadway is in good condition with frequent water breaks, culverts and ditches that offers good drainage off the roadway surface while also providing frequent areas for turnouts. Eight turnouts on this section need to be regraded with one also needing regrading and vegetation cleared. Gravel surfacing is adequate with some areas that require minor repairs. Six sections had slopes that were between 20 and 24%. These sections need rock added to their surface. One drainage relief culvert (road point 82) has soil and debris deposited in the inlet that needs to be cleared.

On Property County Road Access Roadway Road 4:

These roadways are in generally good condition in the areas of low to moderate inclination. Most of the road has frequent water breaks and ditches that offer good drainage off of the roadway surface, while also providing frequent areas for turnouts. There are eight sections of road with slope that are greater than 16% and need added rock surfacing added to the steeper road surfaces. The gravel surfacing on the rest of the road is adequate for the intended use with some areas that require minor repairs.

Drainage: In general the property access roads have been constructed to provide adequate drainage.

Stormwater Runoff: Discharge points from the subject off property roadways.

Surfacing: Access roadways French Road and Road 3 have 2-6" of rock on their surface. These roads lack the required 6 in. depth of rock to meet Category IV road standards. Road 4 needs base rock to be added to the road surfaces to be adequate for the intended use of the project. The road surfaces should have a minimum of six (6) in. of base rock. All off the access roads have sections of roadway with slopes that are greater than 16%. These steeper sections of roadway need to be rocked with 6" of base rock.

Roadway Standards: Gibney Drive is equivalent to Category IV roadway. French Road, Road 3 and Road 4 do not meet slope requirement for Calfire of Humboldt County Regulations but will be adequate for the projects intended use if suggested recommendations are administered.



Traffic: Gibney Dive is a Humboldt County road with Average Daily traffic of 155. While this is significant, it is likely far less impact than the traffic impact previously experienced by historic logging trucks operations on this roadway.

The main access French Road currently serves several parcels A maximum Average Daily Traffic (ADT) of 150 is estimated during peak usage. While this is significant, it is likely far less impact than the traffic impact previously experienced by historic logging trucks operations on this roadway.

The private access Road 3 currently serves several parcels. A maximum ADT of 90 is estimated during peak usage. While this is significant, it is likely far less impact previously experienced by logging trucks and equipment on this roadway.

The private access Road 4 currently serves as access to the projects site. A maximum ADT of between 5 and 15 is estimated during peak usage. While this is significant, it is likely far less impact than what was previously experienced by logging trucks and equipment on this roadway.

Culverts: There are no stream crossing on these roadways. Ditch relief is provided by rolling dips and leadouts.

Conclusion

The subject roadways are adequate for the intended uses on this property, and the estimated uses for the other properties which they will serve. Implementation of the following recommendations will provide for the intended use and limit the effects on water quality. Based on our site exploration and observations, it is in our opinion that if our recommendations are implemented as intended, then no further actions will be necessary.

Recommendations

Specific areas identified for maintenance or repair are identified in **Attachment 1**. The following are general recommendations for continued use of these roadways:

Access Roadways: Use of these roadways will primarily be a function of continued maintenance. This is to include regular grading to remove ruts, addition of rock surfacing when needed, and maintenance and or replacement of drainage structures and water breaks. Pullouts must be graded when the road is graded to prevent vegetation from growing and making the pullout unusable.

Any road improvement and stream crossing maintenance shall be in accordance with AASHTO, County of Humboldt Road Design Manual, Cafferata et al. (2017), and Weaver et al. (2015). The required permits must be obtained for work to be done on onstream culverts.



Limitations

This report, recommendations, and conclusions are solely intended for the site discussed above. The information contained in this report is only intended for use at the stated site using the stated uses. This report should not be used as justification for any other project or site, and only be used for information purposes if referenced and reviewed for other projects. TVCE recognize that the site is in a dynamically active area and conditions can and will change. TVCE has used the best professional judgment to assess the present and future risks to assist the landowner in the proposing development that does not increase the risk to the resources present in the project area or subject the landowner to untenable hazards. If conditions different from those described in this report are encountered during construction/maintenance, the project engineer/contractor/owner should contact this office to review the new conditions and evaluate their bearing on the validity of any recommendations provided herein.

The opinions presented herein have been developed using a degree of care and skill ordinarily exercised, under similar circumstances, by reputable civil engineers practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Do not apply any of this report's conclusions or recommendations if the nature, design, or location of the project changes. If changes are contemplated, the author of this report should be consulted to review the impact on the applicability of the recommendations in this report. The author of this report is not responsible for any claims, damages, or liability associated with any other party's interpretation or reuse of this report for other projects or at other locations without written consent.



References

- Cafferata, P., Lindsay, D., Spittler, T., Wopat, M., Bundros, G., Flanagan, S., Coe, D., and Short, W. (2017). Designing Watercourse Crossing for Passage of 100-Year Flood Flows, Wood and Sediment (California Forestry Report No. 1). Department of Forestry and Fire Protection, Sacramento, California. p. 137.
- Weaver, W.E., Weppner, E.M., and Hagens, D.K. (2015). Handbook for Forest, Ranch, and Rural Roads: A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining and Closing Wildland Roads (Rev. 1st ed.), Mendocino County Resource Conservation District, Ukiah, California. p. 420.
- Humboldt County (2017, December 1st) Humboldt county Department of Public Works. Retrieved from <http://www.humboldt.gov/1392/Public-Works>.
- Ken. Freed (Humboldt County Public Works Land Use Division). Personal Communication, 12/04/2017.





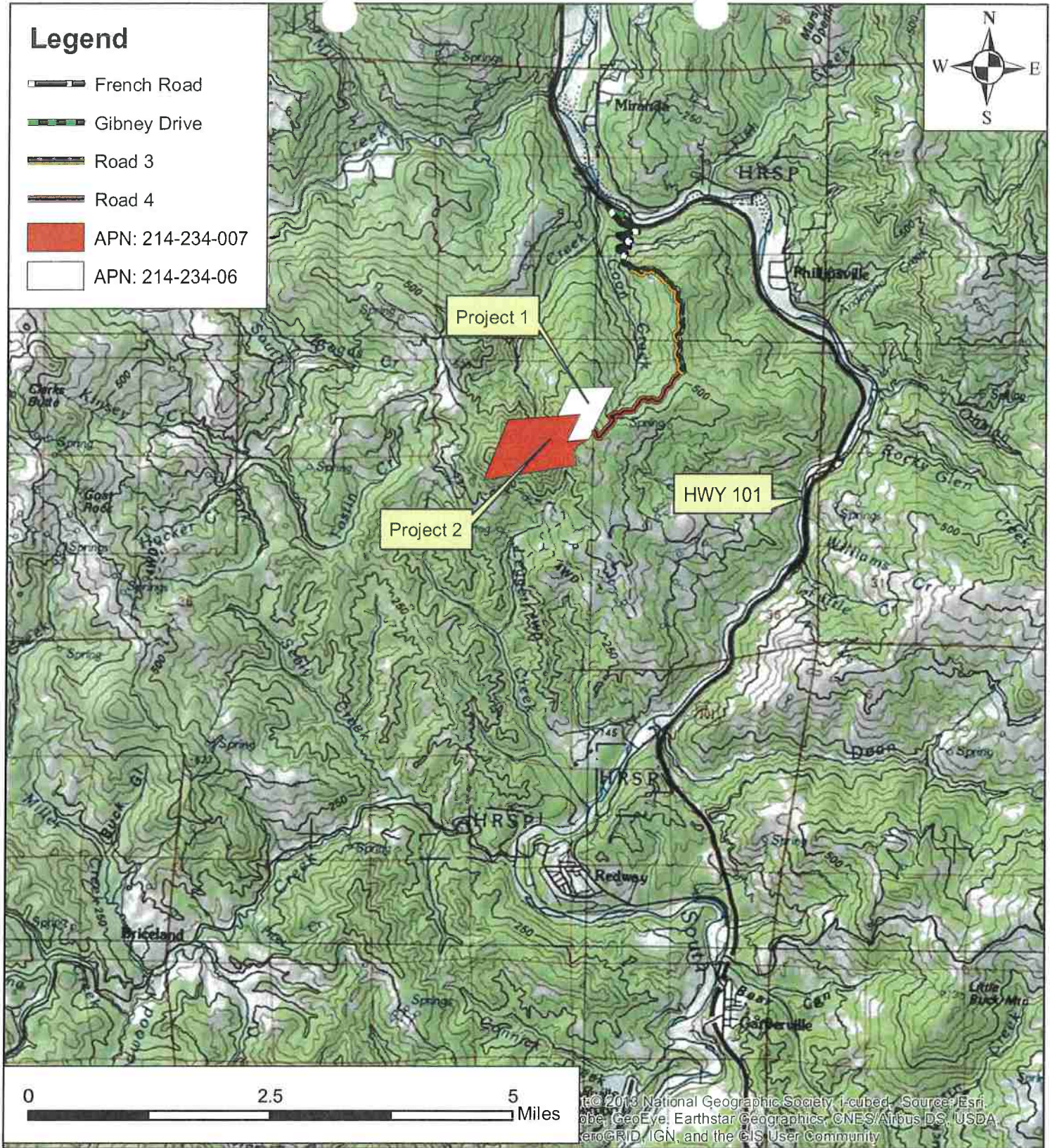
ATTACHMENT 1:

Location Map



Legend

-  French Road
-  Gibney Drive
-  Road 3
-  Road 4
-  APN: 214-234-007
-  APN: 214-234-06



Location Map for: APN 214-234-006, and APN 214-234-007

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation

Location: French Road
Miranda, CA 95573







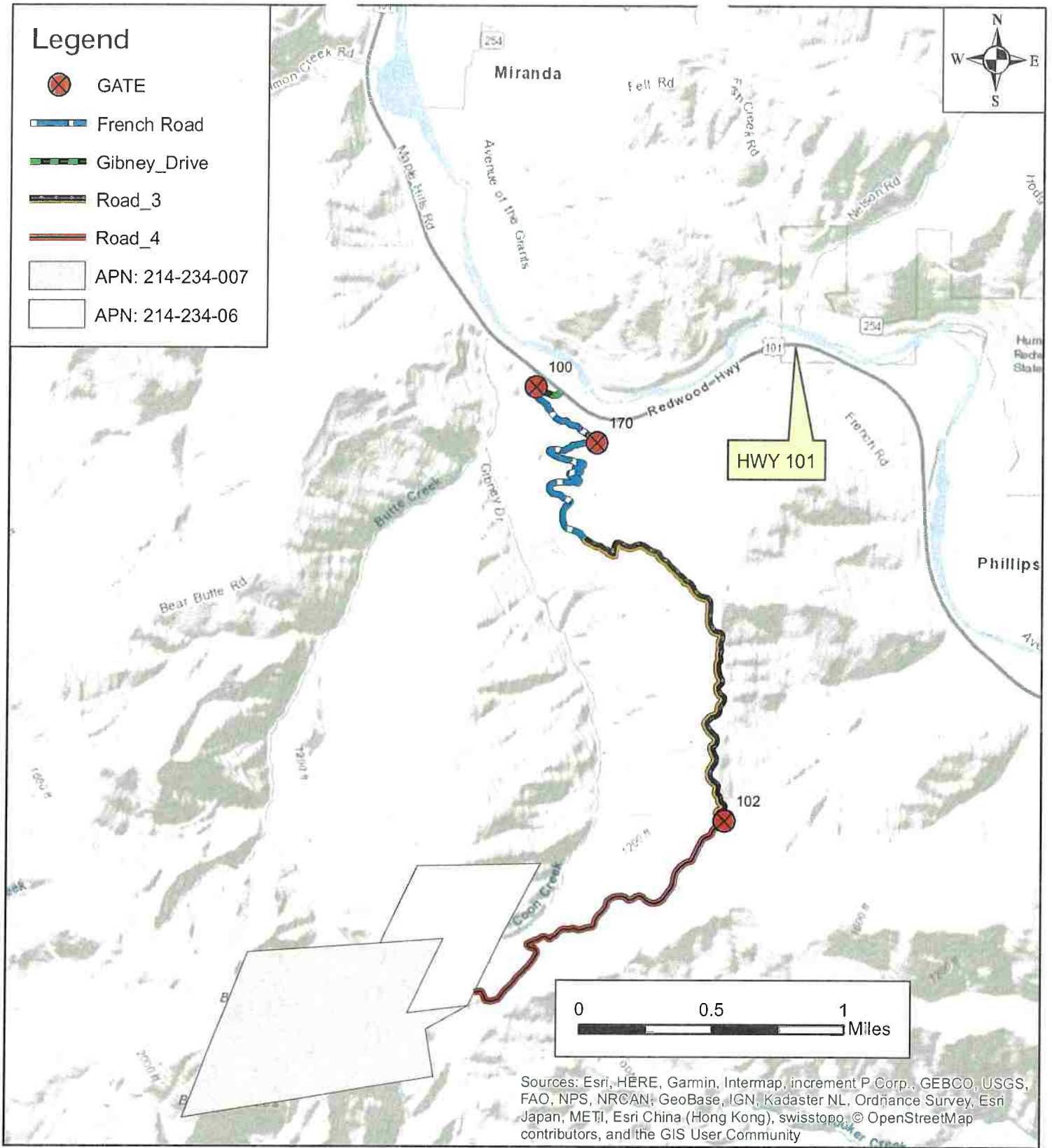
ATTACHMENT 2:

Road Point Maps



Legend

-  GATE
-  French Road
-  Gibney_Drive
-  Road_3
-  Road_4
-  APN: 214-234-007
-  APN: 214-234-06



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



Road Map for: APN 214-234-006, and APN 214-234-007

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

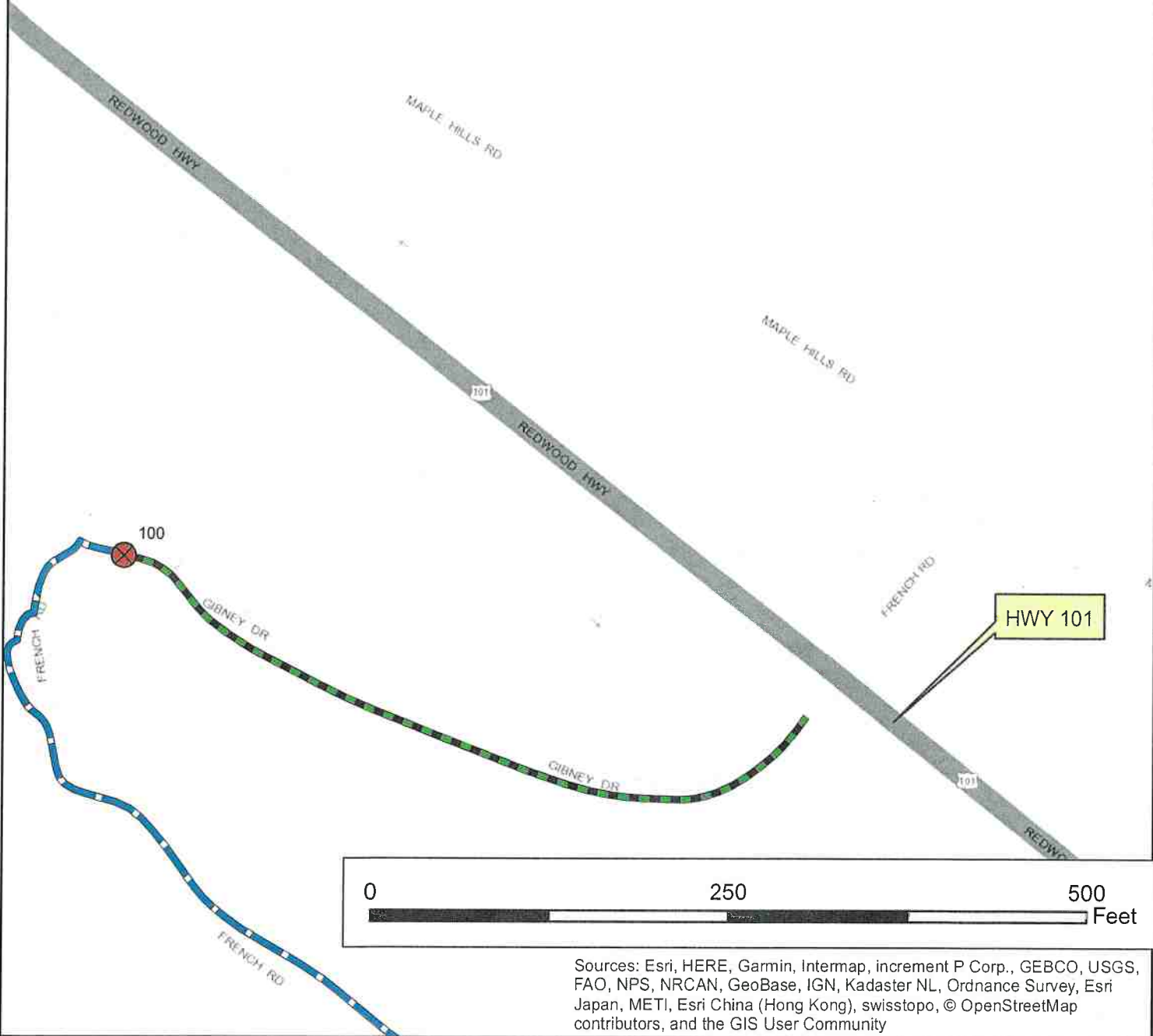
Project: 756.05 Kevin Bourque

Report: Roads Evaluation

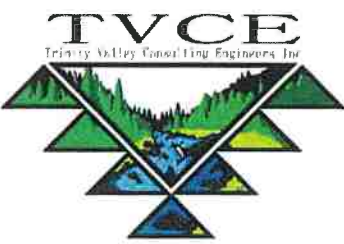
*Location: Frech Road
Miranda, CA 95573*

Legend

-  GATE
-  French Road
-  Gibney Drive



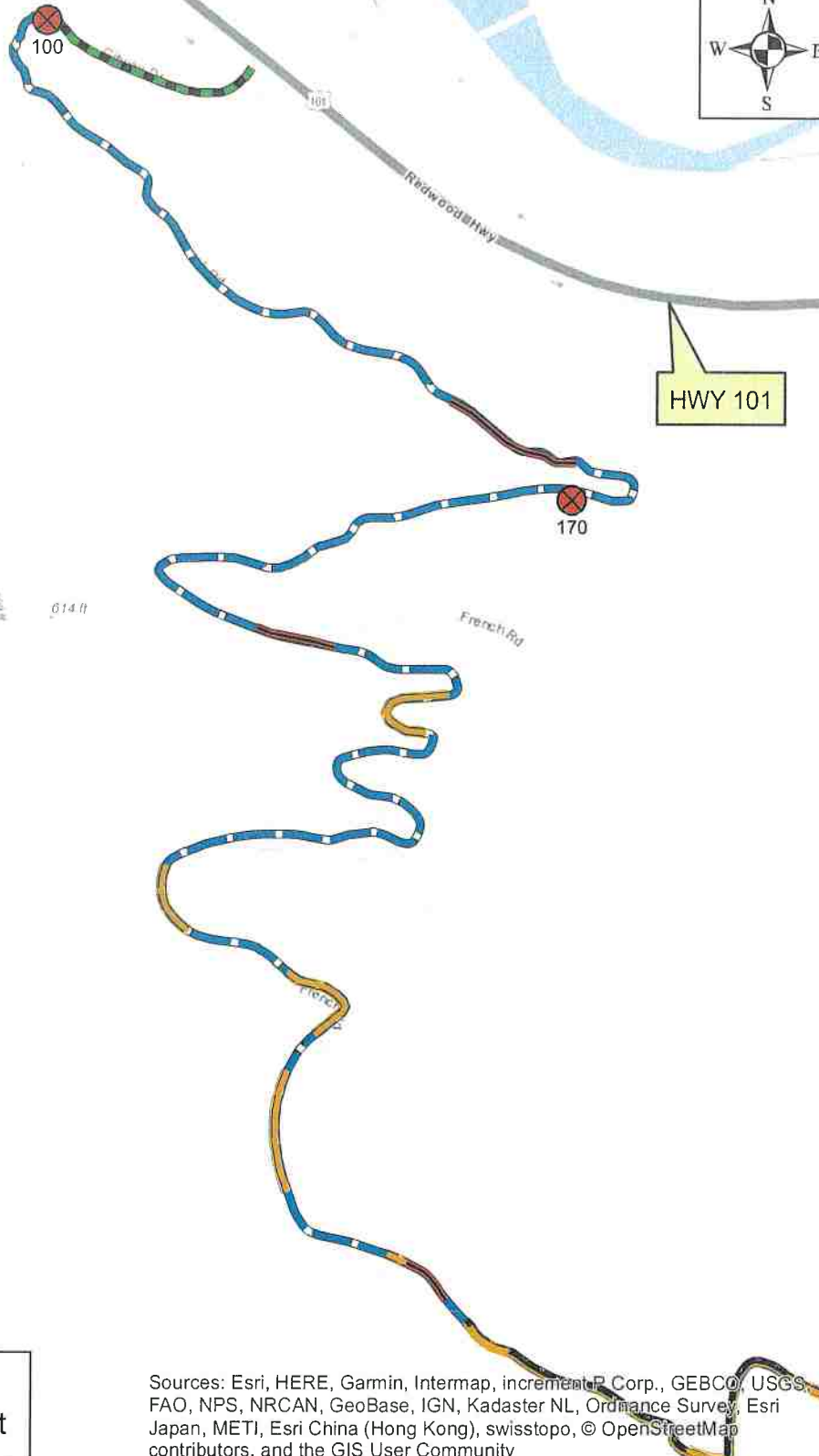
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Gibney Drive Road Map for: APN 214-234-006, and APN 214-234-007

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
Gibney Drive Map
Location: French Road
Miranda, CA 95573



Legend

- GATE
- 20-24%
- 16-20%
- French Road
- Gibney Drive
- Road 3



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



**French Road Road Map for:
APN 214-234-006, and
APN 214-234-007**

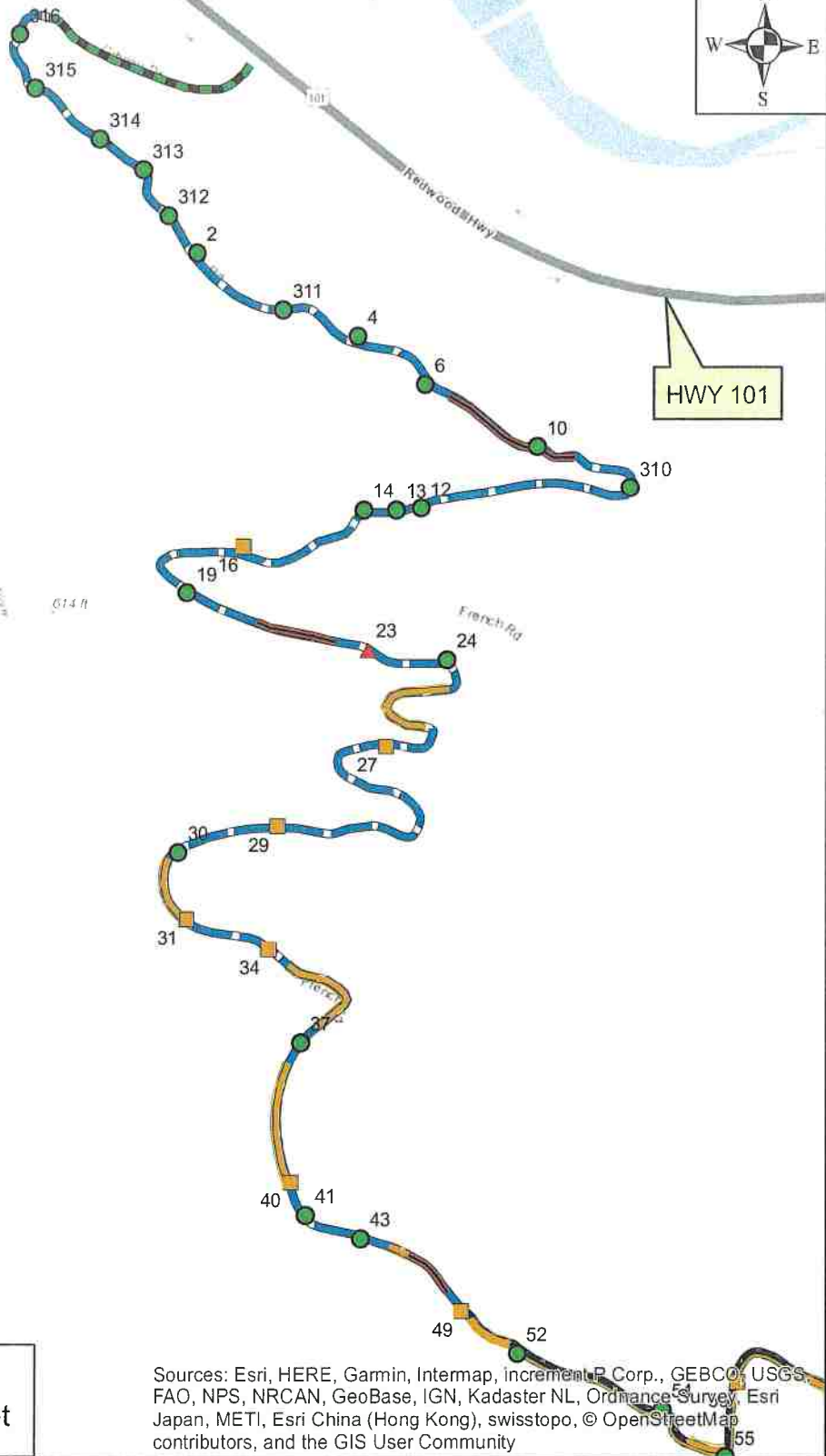
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FOR
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Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
French Road Map
Location: French Road
Miranda, CA 95573



Legend

- Clear and Regrade Pullout
- Regrade Pullout
- Good Pullouts
- 20-24%
- 16-20%
- French Road
- Gibney Drive
- Road 3



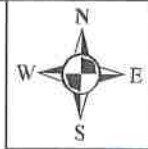
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French Road Pullout Map for: APN 214-234-006, and APN 214-234-007

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
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Project: 756.05 Kevin Bourque
Report: Roads Evaluation
French Road Map
Location: French Road
Miranda, CA 95573



1

Ganey Dr

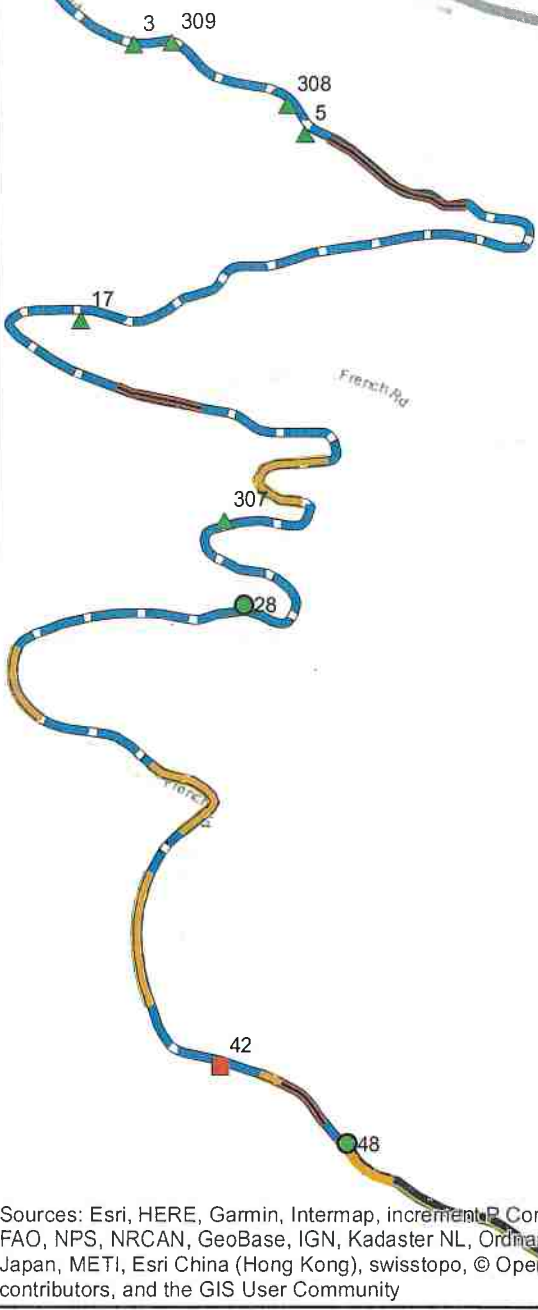
101

Redwood Hwy

HWY 101

Legend

- ★ Rock Lined Ford Or Culvert Needed On Class III Stream
- Rock Needed on Rolling DIP
- ▲ Good Onstream Culverts
- ◆ Clear Inlet/Outlet-Onstream Culvert
- Good Drainage Relief Culvert
- Work needed on Drainage Relief Culvert
- 20-24%
- 16-20%
- French Road
- Gibney Drive
- Road 3



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



**French Road Drainage Relief
And Onstream Culvert Map for
APN 214-234-006, and
APN 214-234-007**
Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
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Report: Roads Evaluation
French Road Map
Location: French Road
Miranda, CA 95573



Legend

-  GATE
-  20-24%
-  16-20%
-  French Road
-  Road 3
-  Road 4



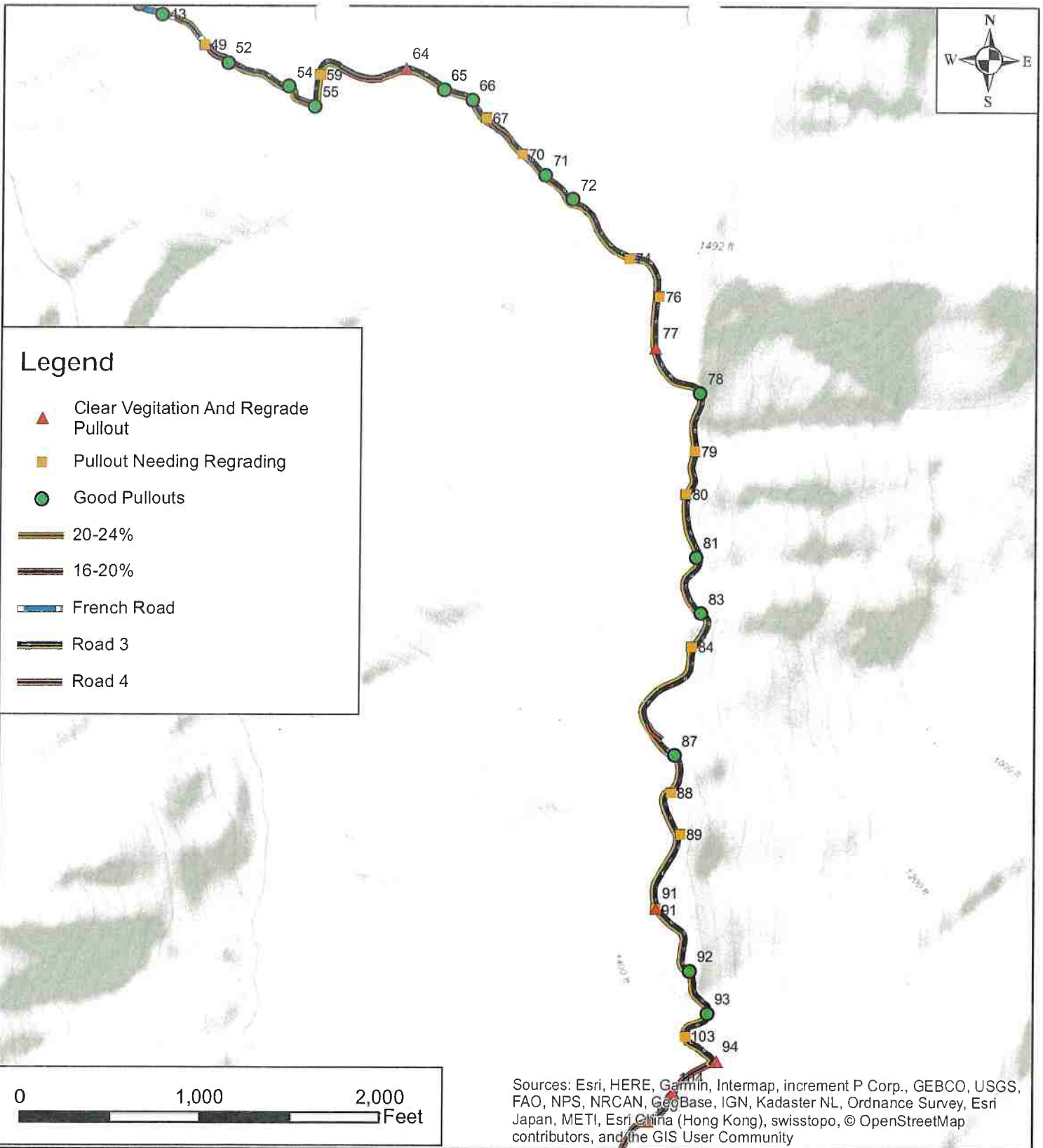
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Road 3 Road Map for: APN 214-234-006, and APN 214-234-007

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
Road 3 Map
Location: French Road
Miranda, CA 95573



**Road 3 Pullout Map for:
APN 214-234-006, and
APN 214-234-007**

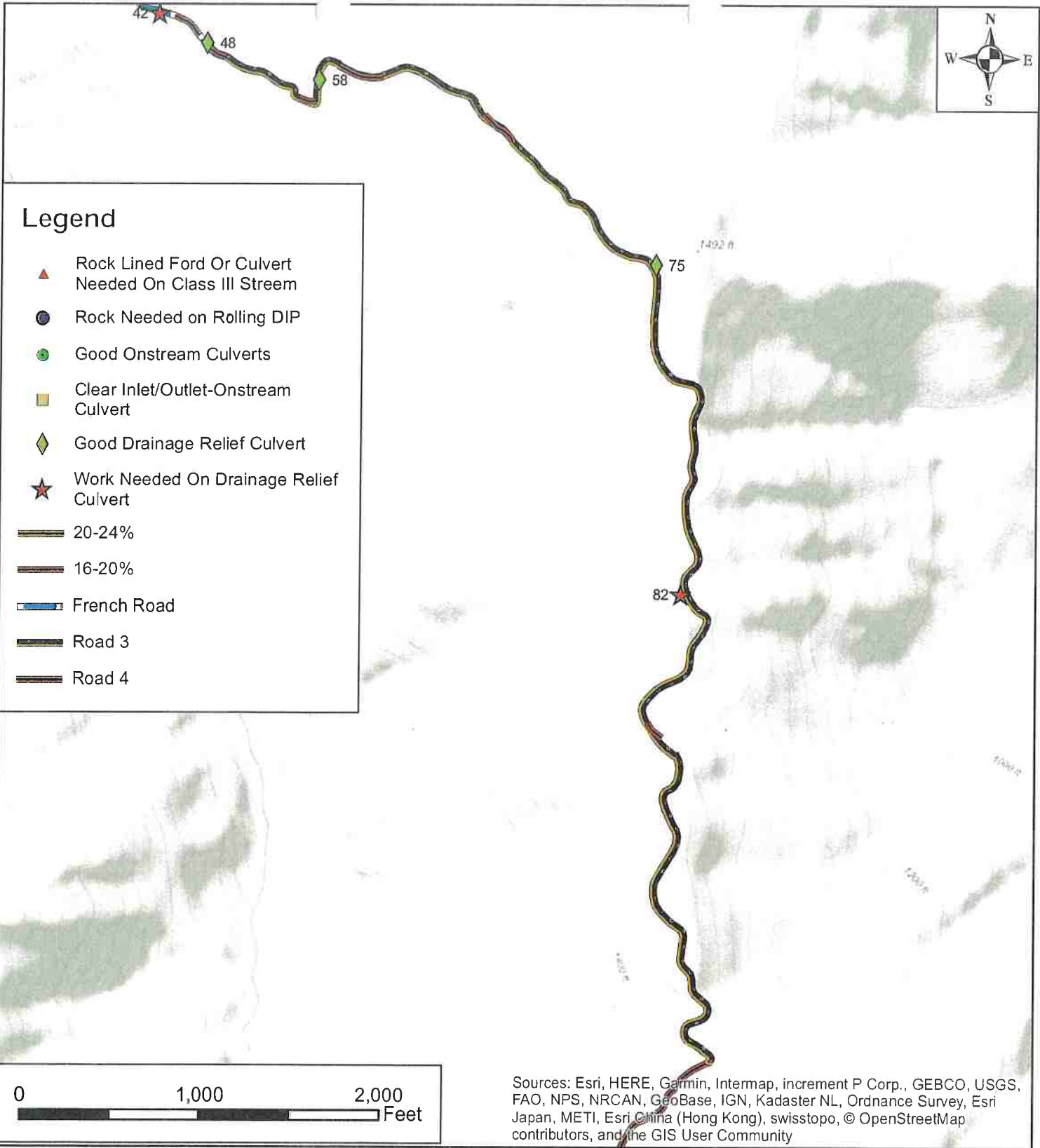
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Project: 756.05 Kevin Bourque

Report: Roads Evaluation

Road 3 Map

*Location: French Road
Miranda, CA 95573*



Legend

- Rock Lined Ford Or Culvert Needed On Class III Stream
- Rock Needed on Rolling DIP
- Good Onstream Culverts
- Clear Inlet/Outlet-Onstream Culvert
- Good Drainage Relief Culvert
- Work Needed On Drainage Relief Culvert
- 20-24%
- 16-20%
- French Road
- Road 3
- Road 4

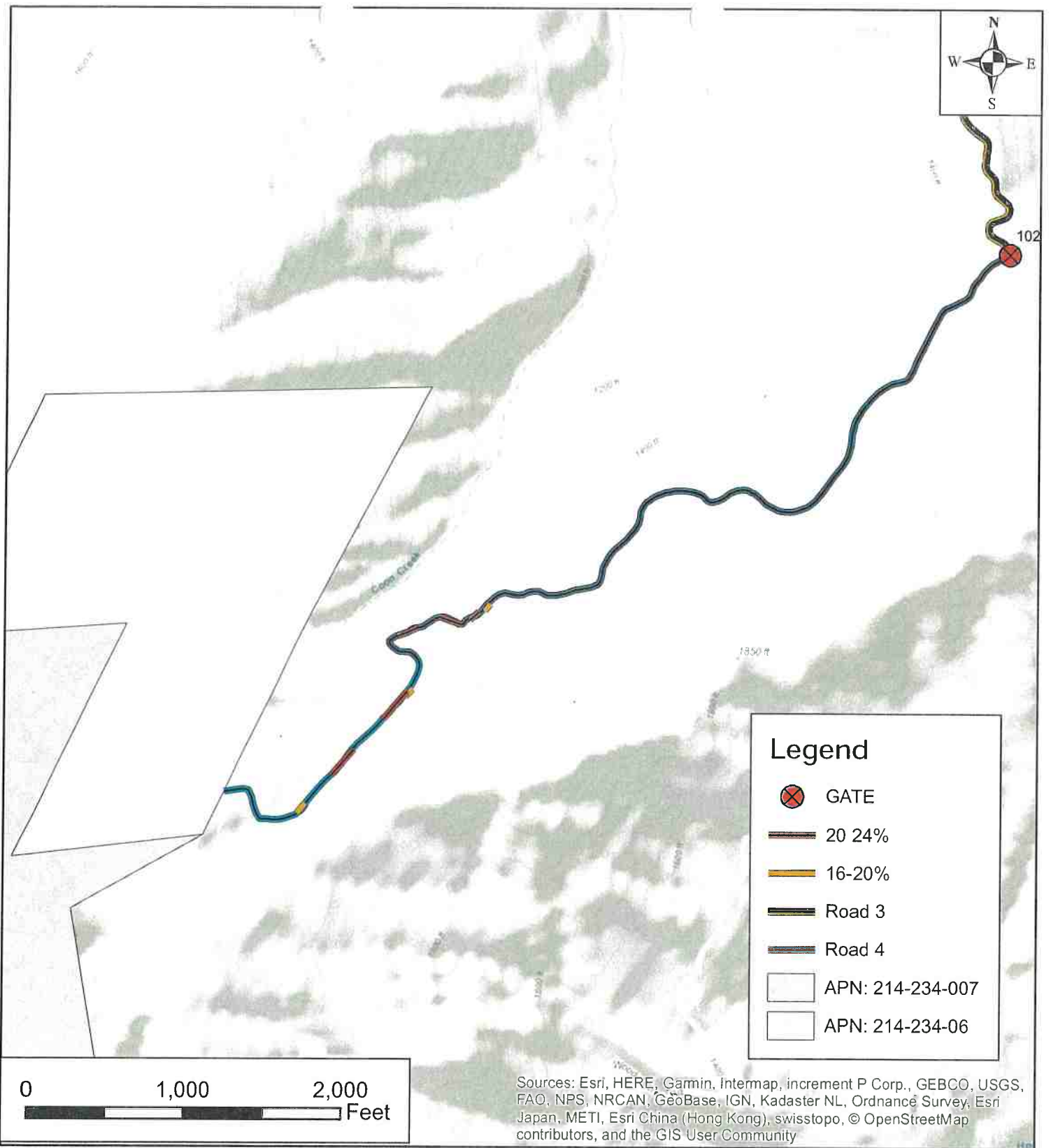


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Road 3 Drainage Relief And Onstream Culvert Map for:
APN 214-234-006, and
APN 214-234-007
 Seamless Topographical Map
 FOR
 COUNTY OF HUMBOLDT
 Parcel Information From Humboldt County GIS
 Does not reflect exact location of property lines

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Report: Roads Evaluation
Road 3 Map
Location: French Road
Miranda, CA 95573



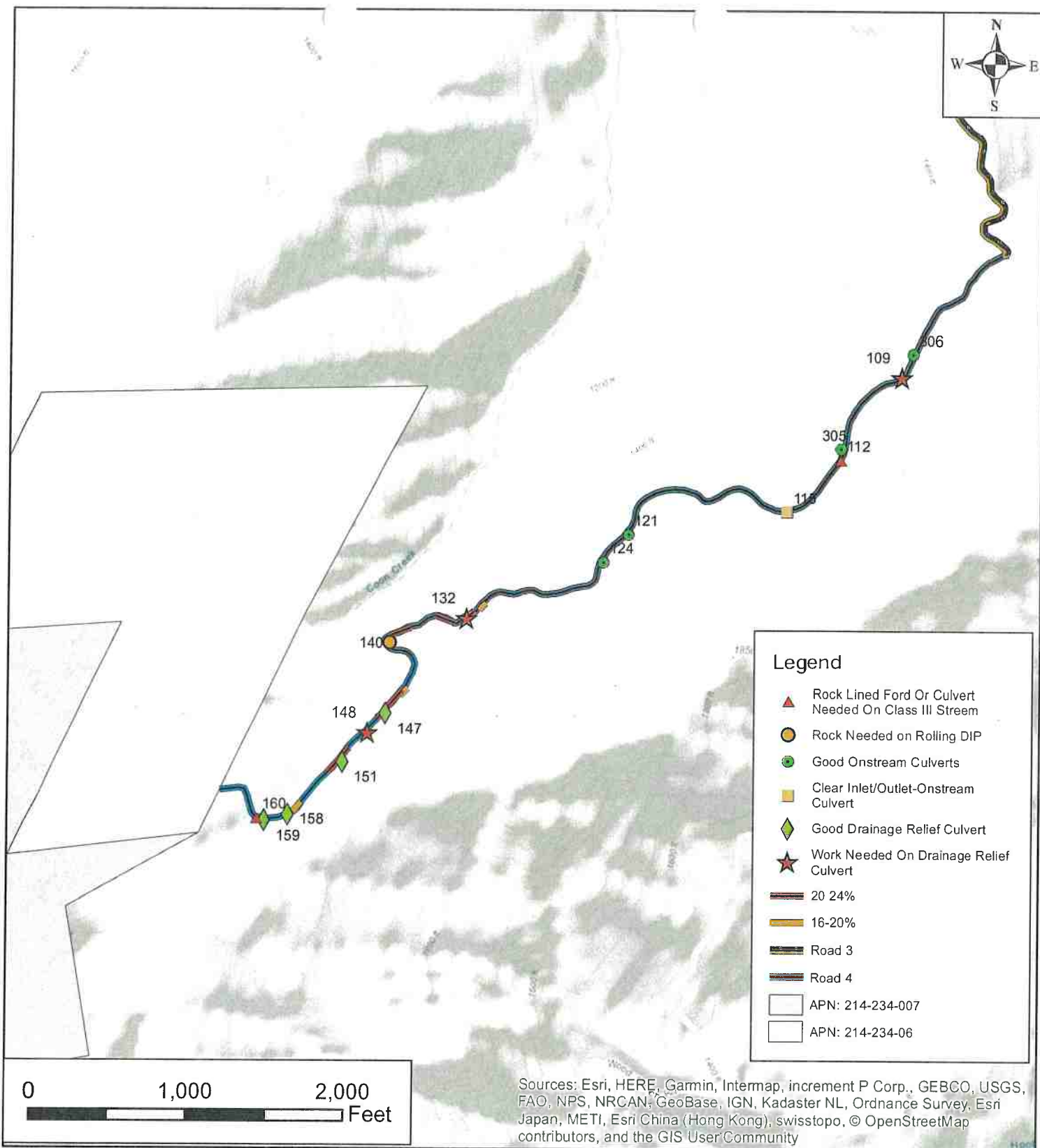
**Road 4 Road Map for:
APN 214-234-006, and
APN 214-234-007**

Seamless Topographical Map
FOR
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Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque

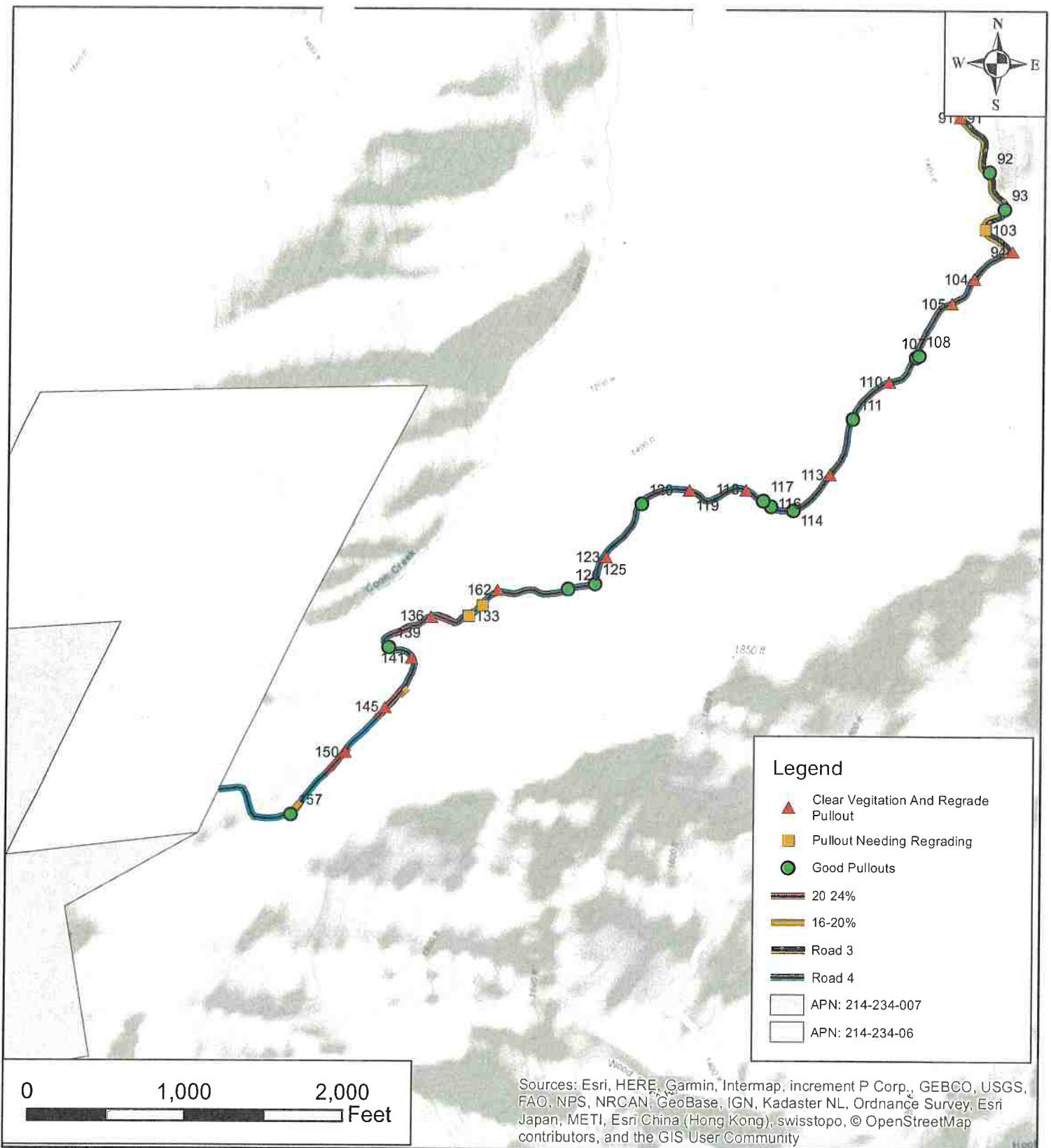
*Report: Roads Evaluation
Road 4 Road Slopes
And Pullouts Map*

*Location: Frech Road
Miranda, CA 95573*



Road 4 Drainage Relief And Onstream Culvert Map for:
APN 214-234-006, and
APN 214-234-007
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 FOR
 COUNTY OF HUMBOLDT
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Road 4 Road Slopes
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**Road 4 Pullout Map for:
APN 214-234-006, and
APN 214-234-007**

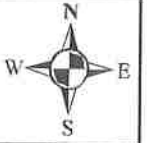
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FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque

Report: Roads Evaluation

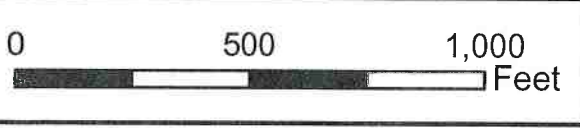
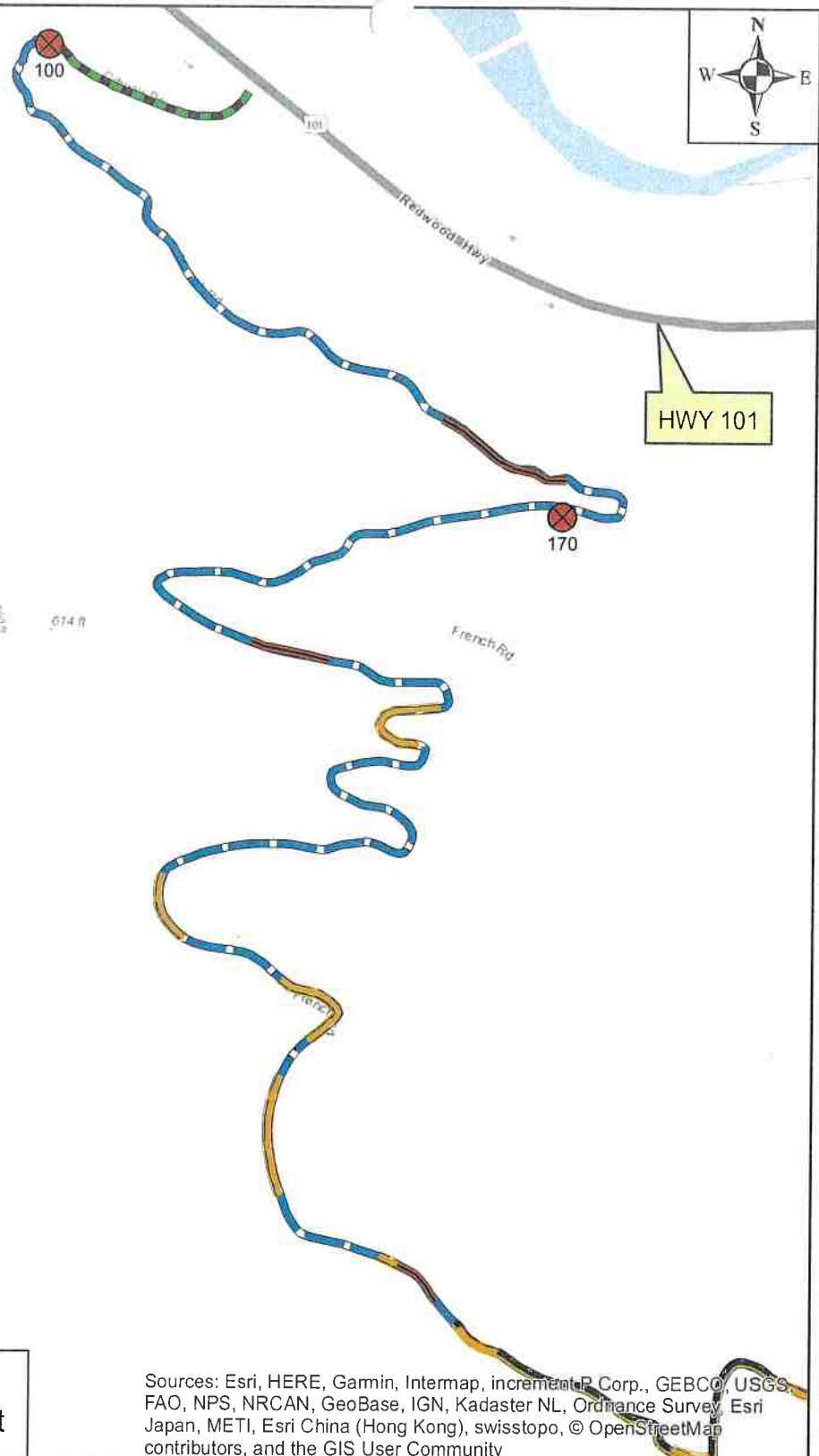
*Road 4 Road Slopes
And Pullouts Map*

*Location: Frech Road
Miranda, CA 95573*



Legend

- GATE
- 20-24%
- 16-20%
- French Road
- Gibney Drive
- Road 3



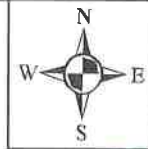
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community











**French Road Road Map for:
APN 214-234-006, and
APN 214-234-007**

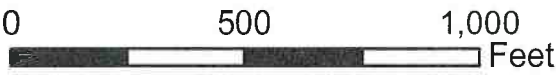
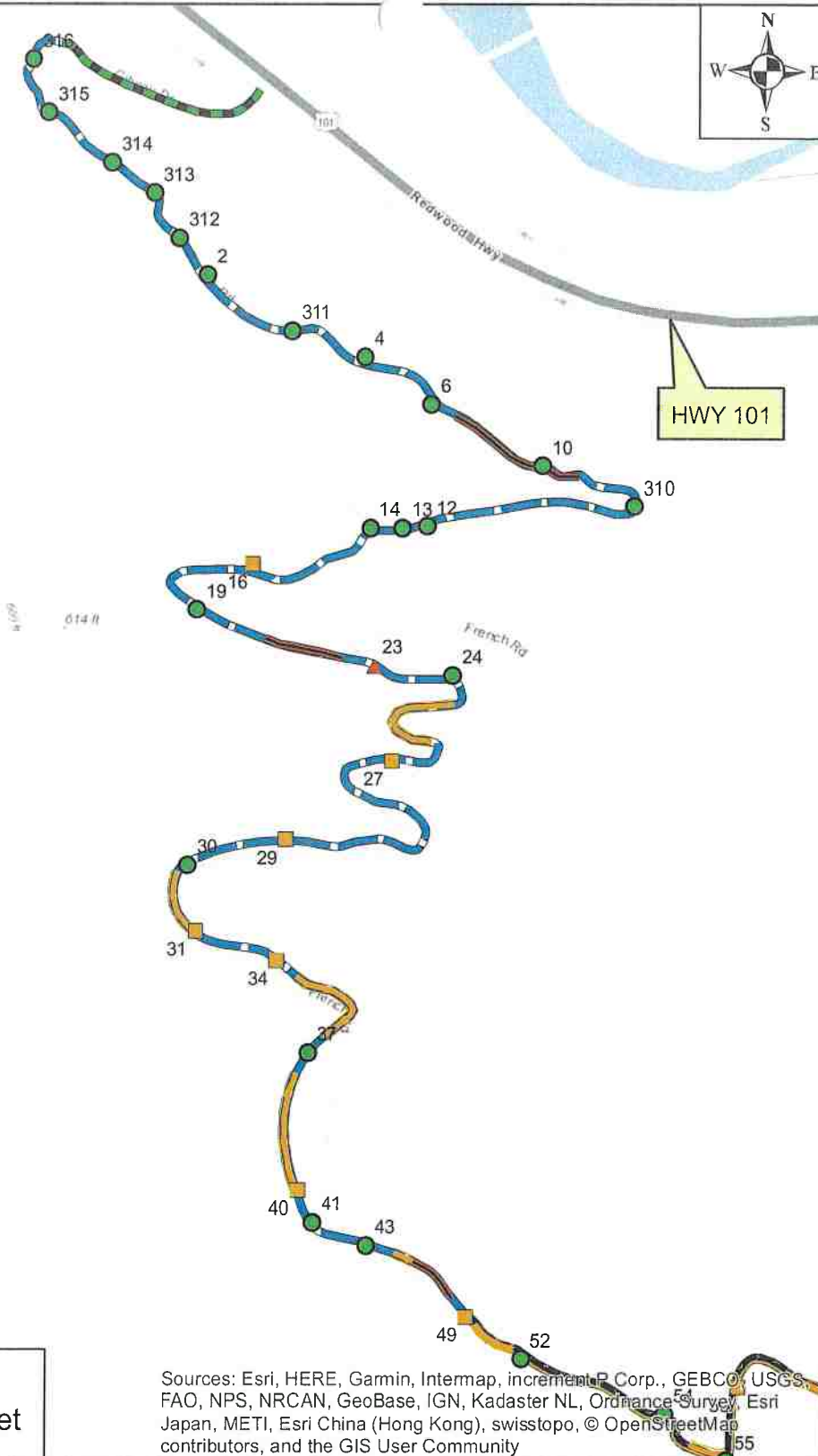
Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
French Road Road Map
Location: French Road
Miranda, CA 95573



Legend

-  Clear and Regrade Pullout
-  Regrade Pullout
-  Good Pullouts
-  20-24%
-  16-20%
-  French Road
-  Gibney Drive
-  Road 3



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



French Road Pullout Map for: APN 214-234-006, and APN 214-234-007

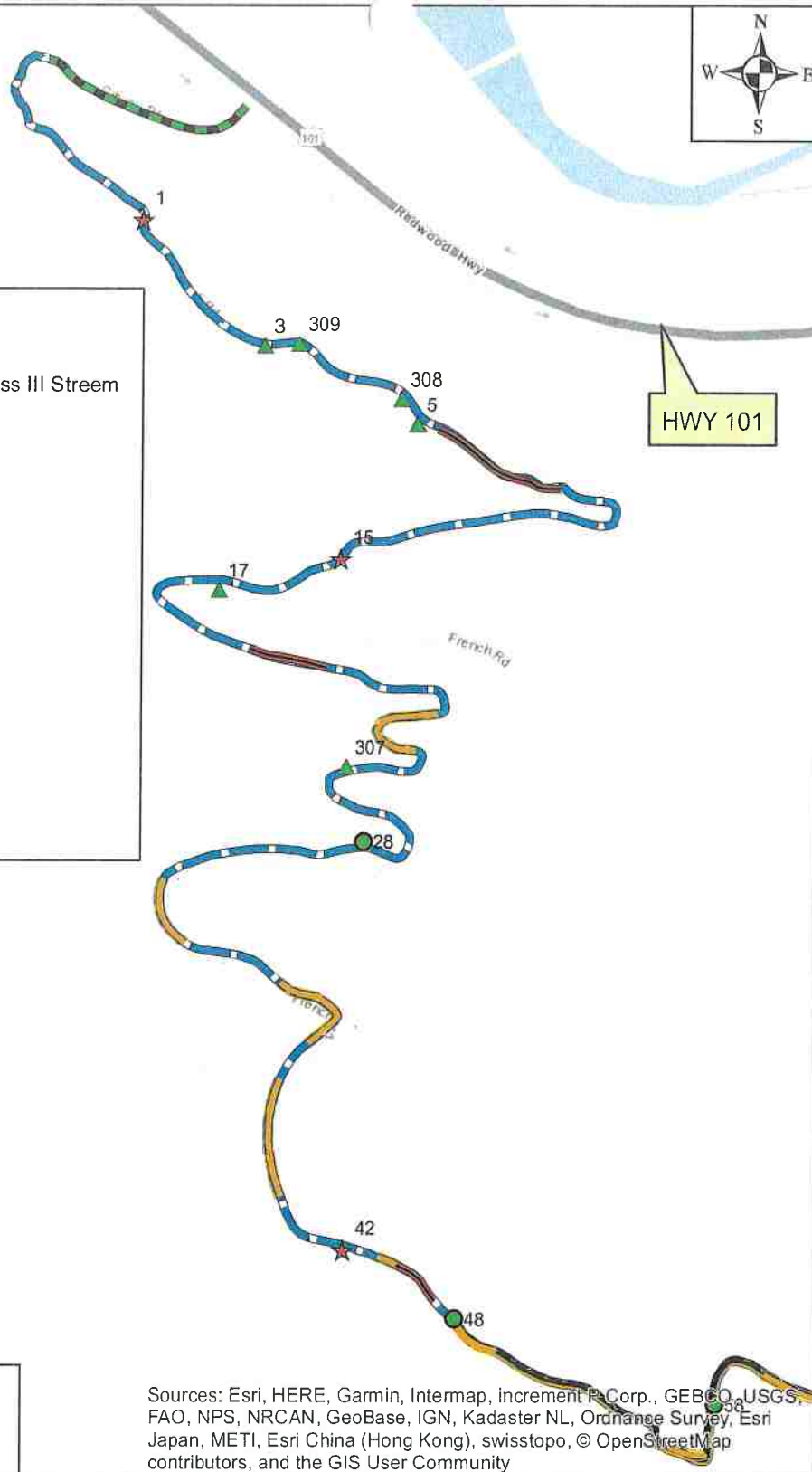
Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
French Road Road Map
Location: French Road
Miranda, CA 95573

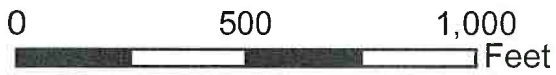


Legend

- Rock Lined Ford Or Culvert Needed On Class III Stream
- Rock Needed on Rolling DIP
- Good Onstream Culverts
- Clear Inlet/Outlet-Onstream Culvert
- Good Drainage Relief Culvert
- Work needed on Drainage Relief Culvert
- 20-24%
- 16-20%
- French Road
- Gibney Drive
- Road 3



HWY 101



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



**French Road Drainage Relief
And onstream Culvert Map for
APN 214-234-006, and
APN 214-234-007**

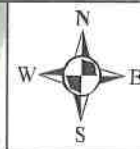
Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque

Report: Roads Evaluation

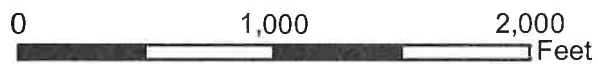
French Road Road Map

*Location: French Road
Miranda, CA 95573*



Legend

-  GATE
-  20-24%
-  16-20%
-  French Road
-  Road 3
-  Road 4



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



Road 3 Road Map for: APN 214-234-006, and APN 214-234-007

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque












Report: Roads Evaluation

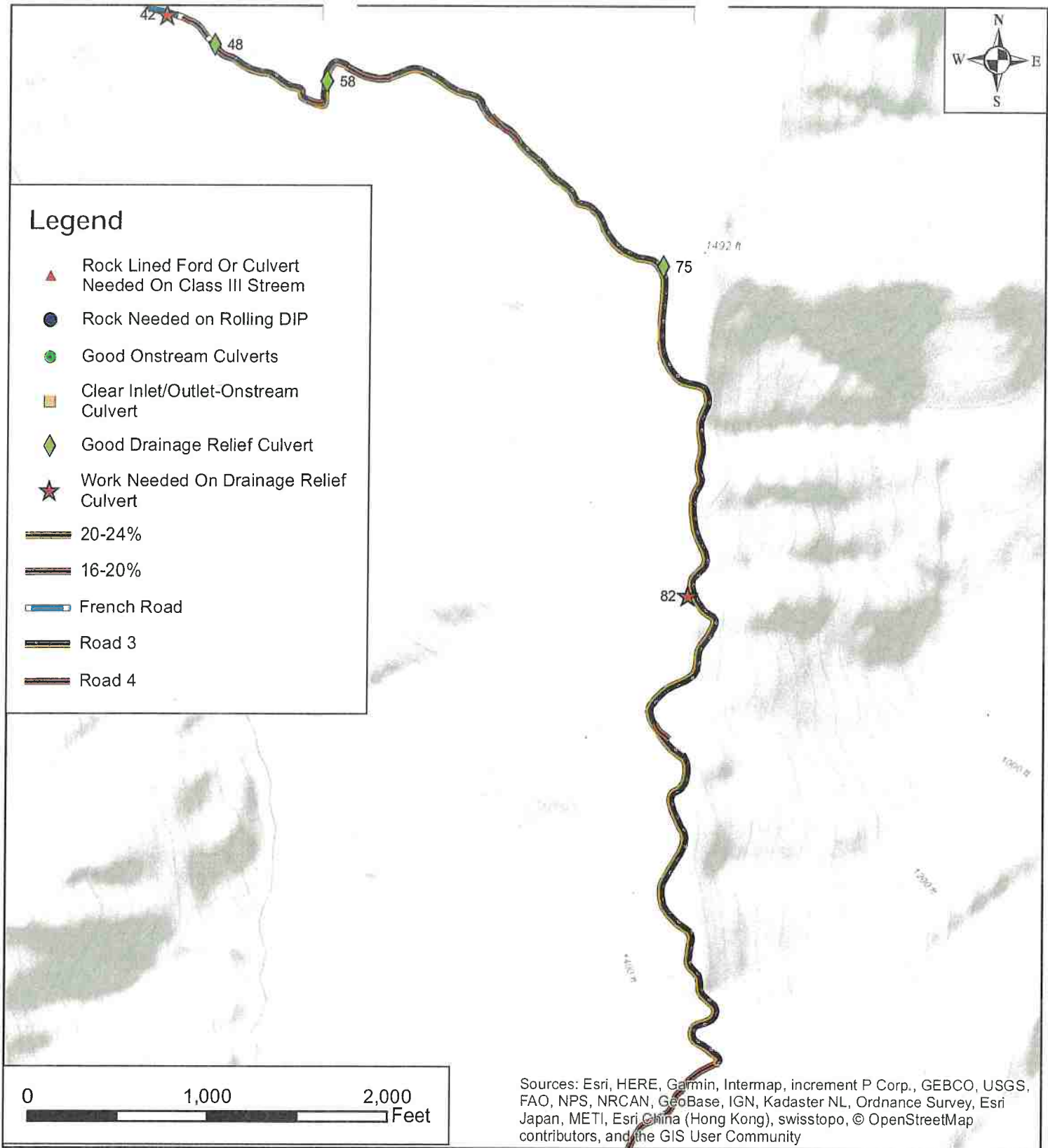
Road 3 Map

*Location: French Road
Miranda, CA 95573*



Legend

-  Rock Lined Ford Or Culvert Needed On Class III Stream
-  Rock Needed on Rolling DIP
-  Good Onstream Culverts
-  Clear Inlet/Outlet-Onstream Culvert
-  Good Drainage Relief Culvert
-  Work Needed On Drainage Relief Culvert
-  20-24%
-  16-20%
-  French Road
-  Road 3
-  Road 4

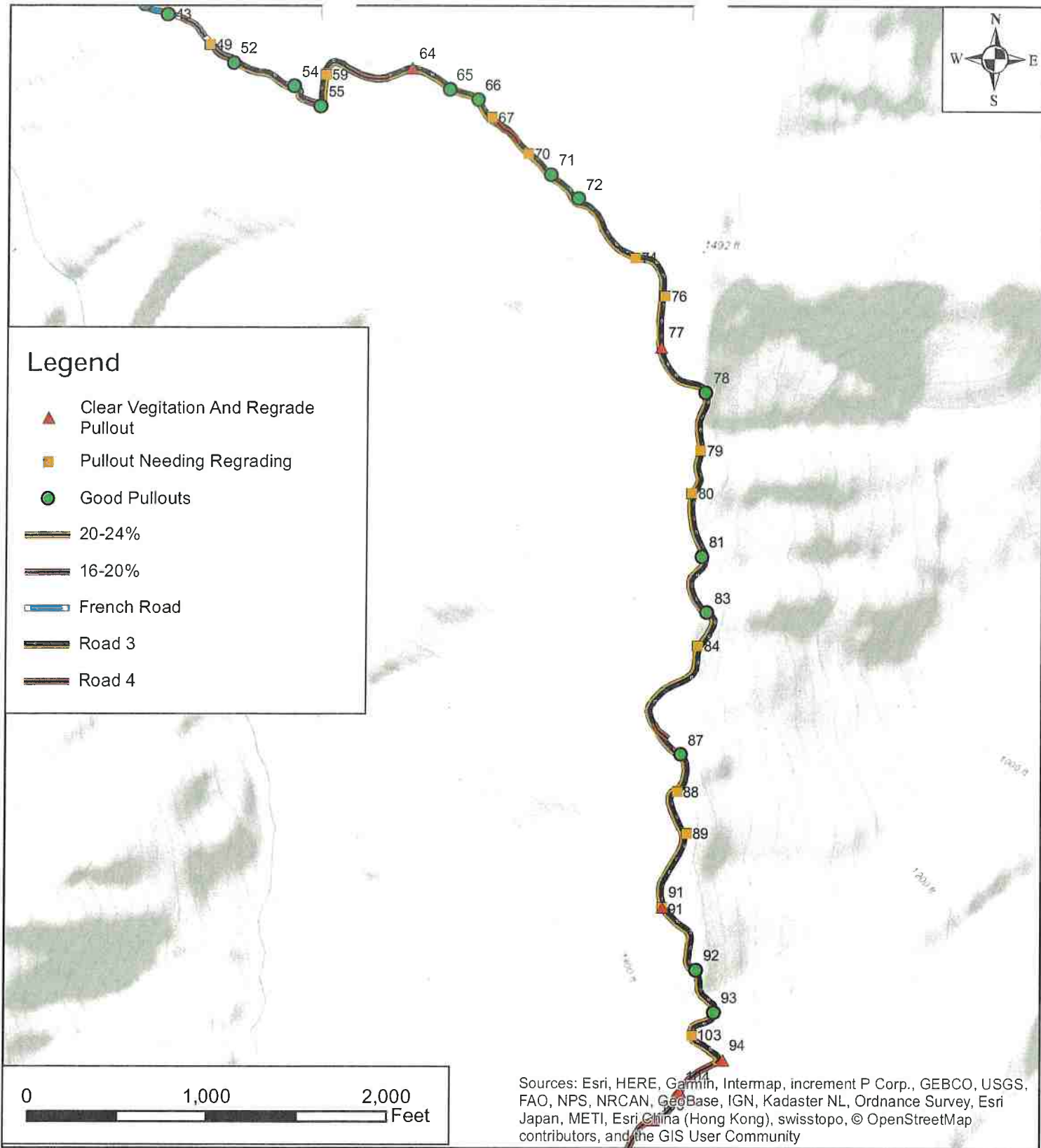


Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



Road 3 Drainage Relief And Onstream Culvert Map for:
APN 214-234-006, and APN 214-234-007
Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
Road 3 Map
Location: French Road
Miranda, CA 95573



Legend

- Clear Vegetation And Regrade Pullout
- Pullout Needing Regrading
- Good Pullouts
- 20-24%
- 16-20%
- French Road
- Road 3
- Road 4



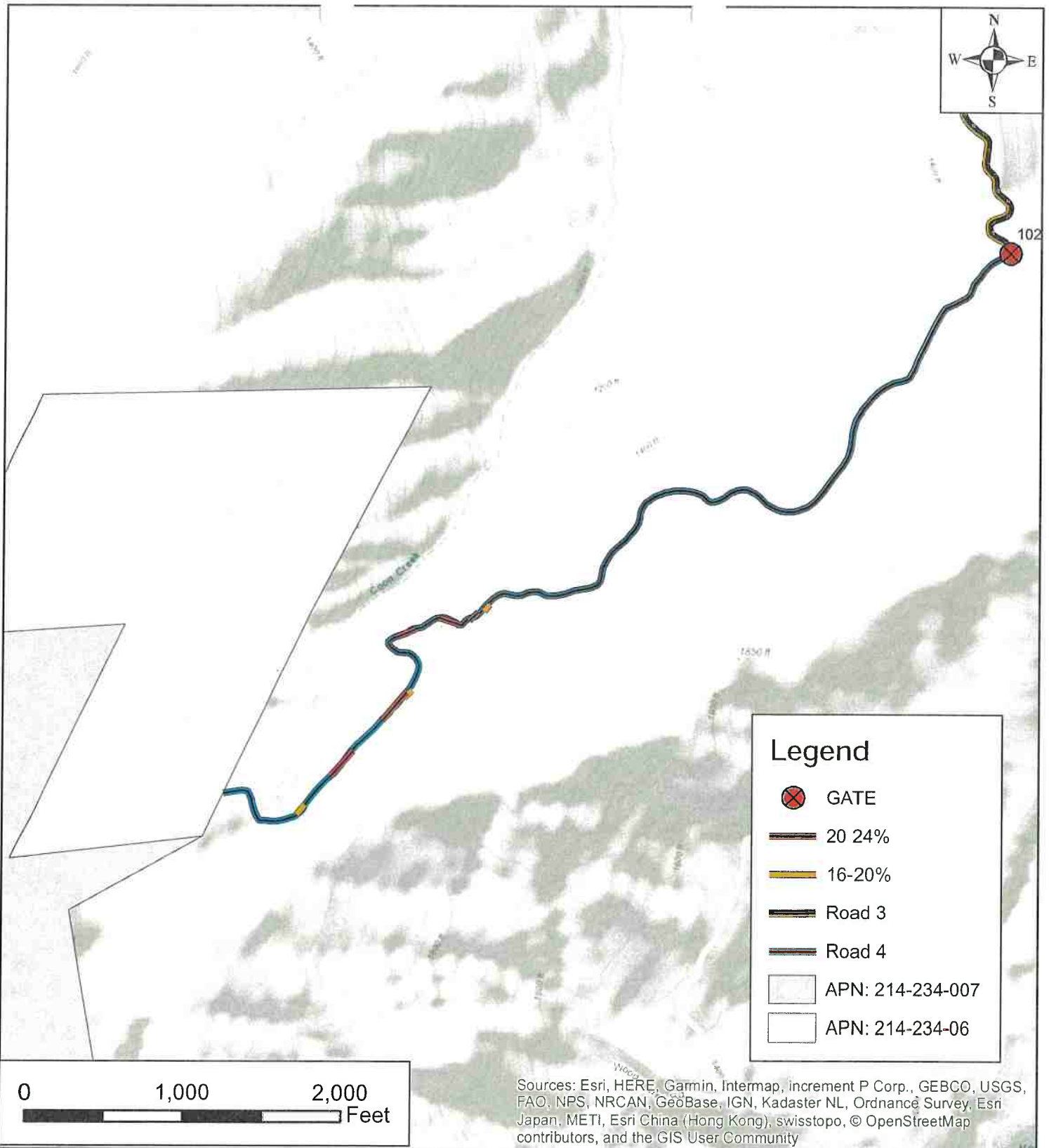
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Road 3 Road Map for: APN 214-234-006, and APN 214-234-007

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
Road 3 Map
Location: French Road
Miranda, CA 95573



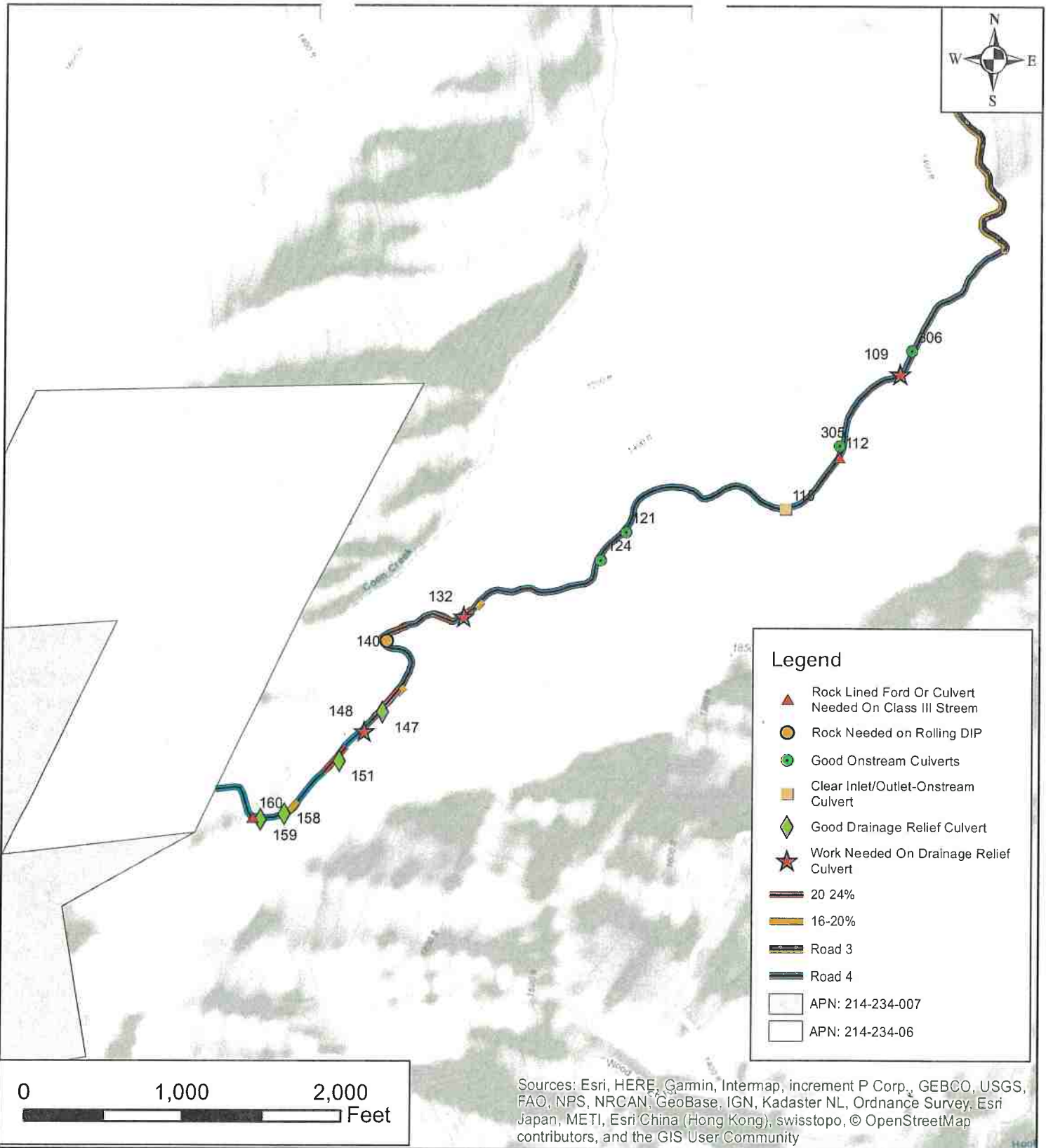
**Road 4 Road Map for:
APN 214-234-006, and
APN 214-234-007**

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque

*Report: Roads Evaluation
Road 4 Road Slopes
And Pullouts Map*

*Location: Frech Road
Miranda, CA 95573*

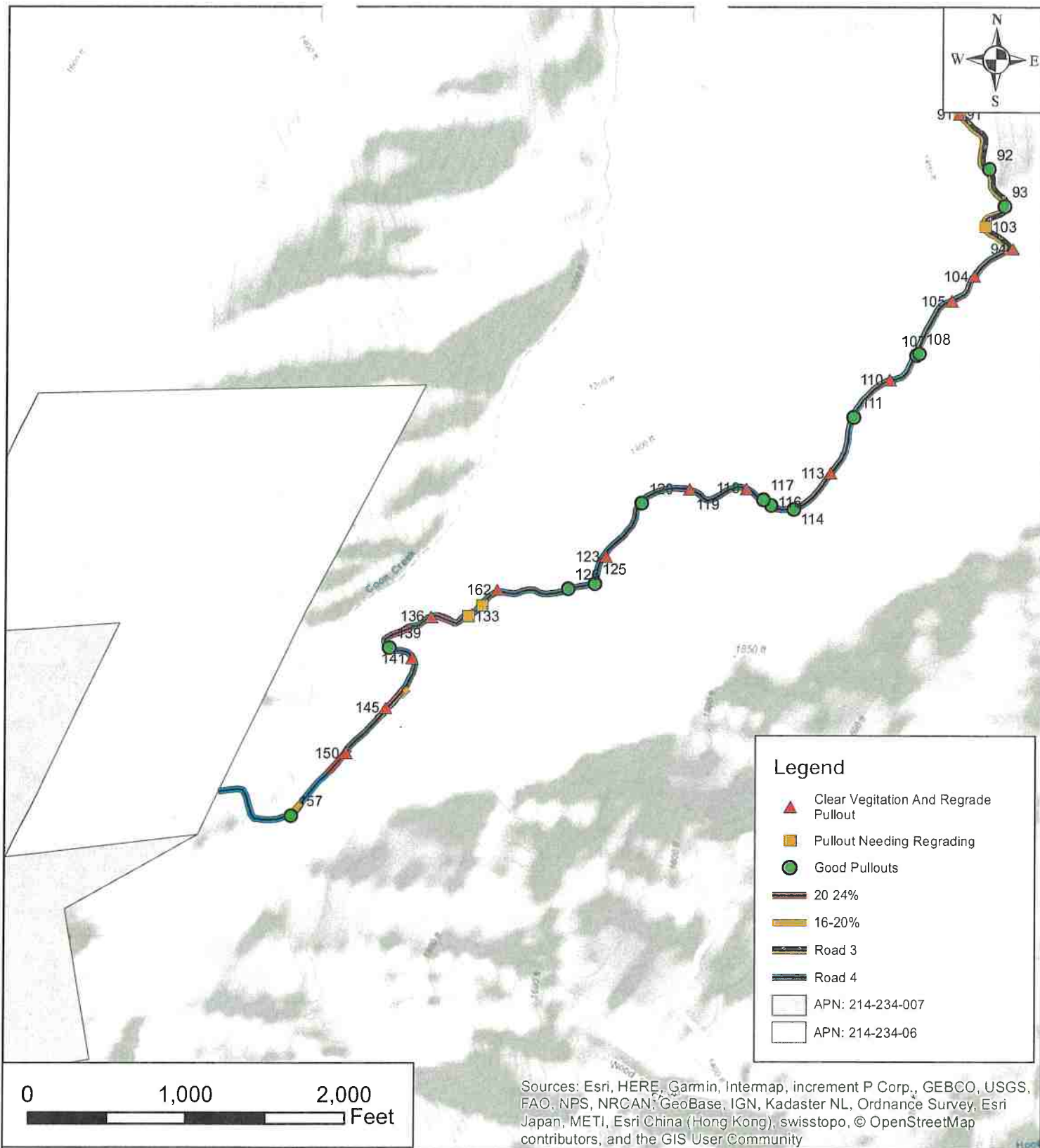


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Road 4 Drainage Relief And Onstream Culvert Map for:
APN 214-234-006, and
APN 214-234-007
 Seamless Topographical Map
 FOR
 COUNTY OF HUMBOLDT
 Parcel Information From Humboldt County GIS
 Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque
Report: Roads Evaluation
Road 4 Road Slopes
And Pullouts Map
Location: Frech Road
Miranda, CA 95573



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



**Road 4 Pullout Map for:
APN 214-234-006, and
APN 214-234-007**

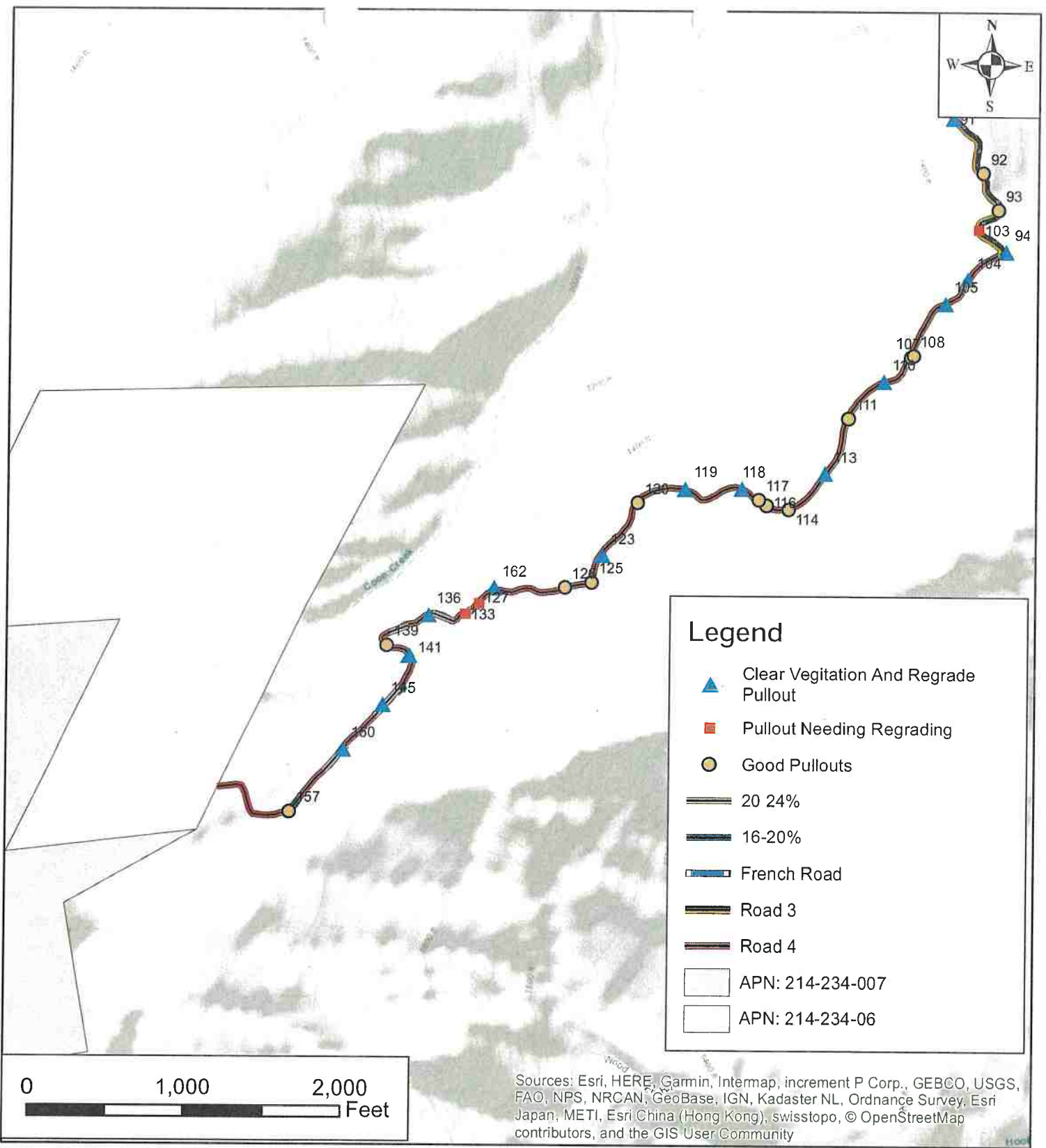
Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque

Report: Roads Evaluation

*Road 4 Road Slopes
And Pullouts Map*

*Location: Frech Road
Miranda, CA 95573*



Legend

- Clear Vegetation And Regrade Pullout
- Pullout Needing Regrading
- Good Pullouts
- 20-24%
- 16-20%
- French Road
- Road 3
- Road 4
- APN: 214-234-007
- APN: 214-234-06

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

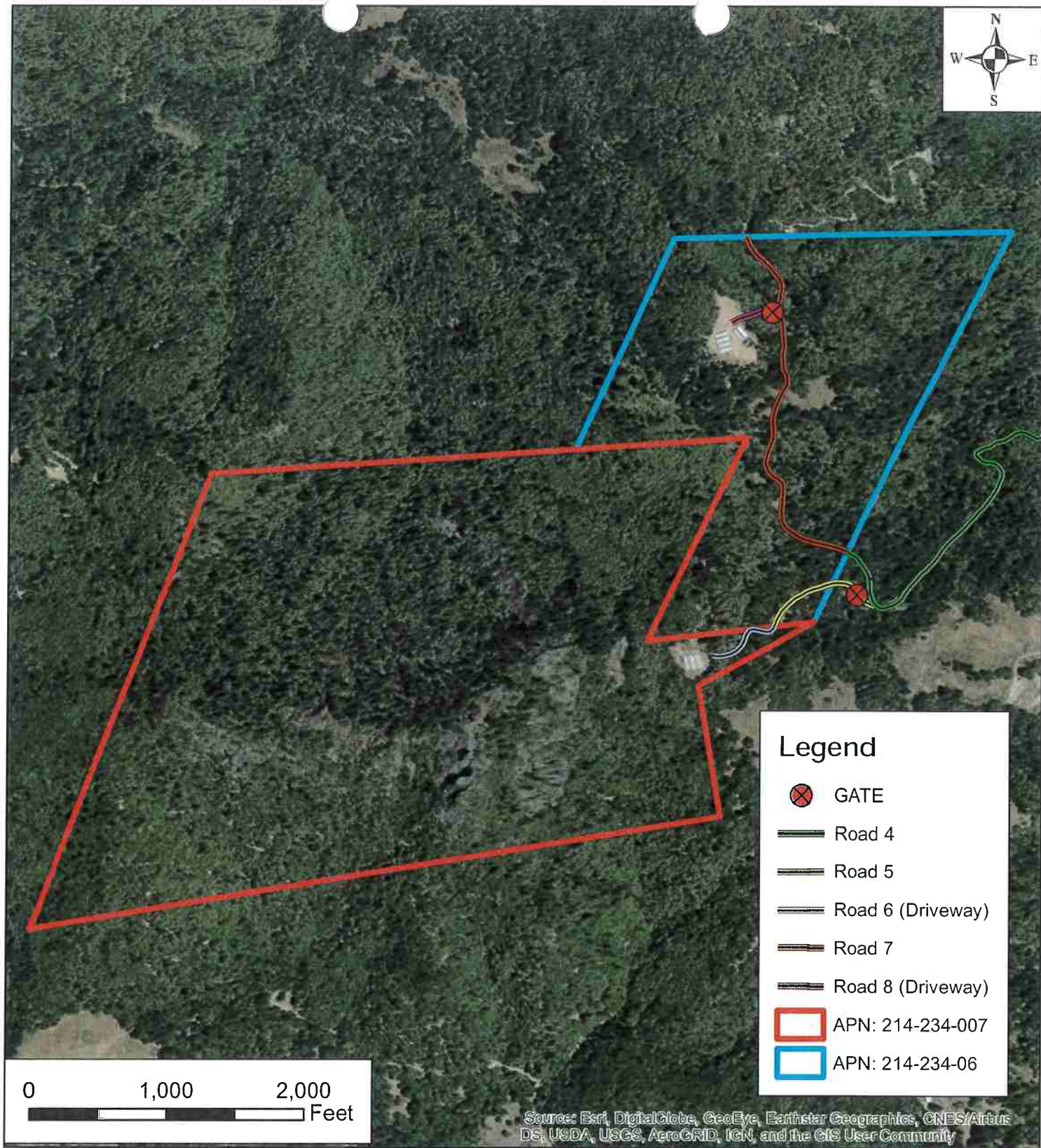
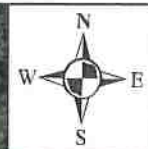


**Road 4 Road Map for:
APN 214-234-006, and
APN 214-234-007**

Seamless Topographical Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque

*Report: Roads Evaluation
Road 4 Road Slopes
And Pullouts Map
Location: French Road
Miranda, CA 95573*



Legend

-  GATE
-  Road 4
-  Road 5
-  Road 6 (Driveway)
-  Road 7
-  Road 8 (Driveway)
-  APN: 214-234-007
-  APN: 214-234-06

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**On Property Roads
Covered by WRPP For:
APN 214-234-006, and
APN 214-234-007**

Seamless Aerial Map
FOR
COUNTY OF HUMBOLDT
Parcel Information From Humboldt County GIS
Does not reflect exact location of property lines

Project: 756.05 Kevin Bourque

*Report: Roads Evaluation
On Property Roads*

*Location: Frech Road
Miranda, CA 95573*



ATTACHMENT 3:

Road Point Tables

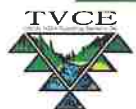


Table 1. Good Pullouts that that will need to be maintained as pullouts.

Point ID	Comments	Latitude	Longitude
2	50'x15'	40.2165553	-123.8191958
4	50'x15'	40.2160448	-123.8178332
6	50'x15'	40.2157449	-123.8172538
10	50'x15'	40.2153630	-123.8162951
12	8'x50'	40.2149552	-123.8172628
13	12'x30'	40.2149391	-123.8174707
14	8'x40'	40.2149366	-123.8177484
19	50'x20'	40.2143837	-123.8192141
24	20'x80'	40.2139901	-123.8170147
30	10'x40'	40.2127259	-123.8192361
37	15'x70'	40.2115248	-123.8181713
41	15'x50'	40.2104251	-123.8180969
43	8'x60'	40.2102822	-123.8176353
52	8'x50'	40.2095690	-123.8162936
54	30'x100'	40.2092328	-123.8150746
55	20'x40'	40.2089394	-123.8145426
65	8'x60'	40.2092335	-123.8119860
66	10'x30'	40.2090907	-123.8114142
71	30'x100'	40.2079746	-123.8099064
72	10'x30'	40.2076191	-123.8093513
78	12'x80'	40.2047205	-123.8067062
81	20'x60'	40.2022344	-123.8067009
83	15'x50'	40.2013845	-123.8065703
87	10'x30'	40.1992211	-123.8070198
92	20'x100'	40.1959520	-123.8066008
93	20'x50'	40.1953186	-123.8062337
101	20'x100'	40.1925324	-123.8045242
107	10'x30'	40.1927121	-123.8081360
108	10'x30'	40.1927477	-123.8080854
111	10'x30'	40.1916231	-123.8095169
114	10'x30'	40.1900118	-123.8108223
116	10'x30'	40.1900800	-123.8113315
117	10'x30'	40.1901740	-123.8115143
120	10'x30'	40.1900663	-123.8142664
125	10'x30'	40.1886585	-123.8152748



Table 2. Good Pullouts that that will need to be maintained as pullouts (continued).

Point ID	Comments	Latitude	Longitude
126	10'x30'	40.1885596	-123.8158713
139	10'x30'	40.1874790	-123.8198948
157	10'x30'	40.1845421	-123.8220164
310	50'x15'	40.2151134	-123.8155131
311	50'x15'	40.2162041	-123.8184630
312	50'x15'	40.2167899	-123.8194449
313	50'x15'	40.2170765	-123.8196694
314	50'x15'	40.2172688	-123.8200359
315	50'x15'	40.2175846	-123.8205888
316	50'x15'	40.2179269	-123.8207281

Table 3. Pullout that need expanding and regrading.

Point ID	Comments	Latitude	Longitude
16	Regrade to 15'x50'	40.2146897	-123.8187498
27	Regrade to 20'x50'	40.2133319	-123.8174968
29	Turnout needs grading	40.2129083	-123.8184116
31	Regrade to 15'x40'	40.2123014	-123.8191611
34	Regrade to 15'x40'	40.2121208	-123.8184607
40	Regrade to 10'x30'	40.2106362	-123.8182352
49	Extend DRC and regrade turnout	40.2098400	-123.8167776
59	Regrade pullout	40.2094221	-123.8144557
67	Expand pullout	40.2088281	-123.8111230
70	Create pullout	40.2082908	-123.8103767
74	Regrade to 10'x60'	40.2067465	-123.8081957
76	Regrade to 8'x80'	40.2061790	-123.8075697
79	Regrade pullout 10'x80'	40.2038453	-123.8067799
80	Create pullout regrade to 14'x80'	40.2031971	-123.8069309
84	Regrade 15'x50'	40.2008762	-123.8067366
88	Regrade pullout to 15'x60'	40.1986554	-123.8070696
89	Regrade pullout 20'x100'	40.1980300	-123.8068641
91	Clear veg regrade to 15'x60'	40.1969009	-123.8073170
103	Regrade and out-slope road	40.1949720	-123.8066608
127	Create pullout by regrading 15'x50'	40.1882533	-123.8178260
133	Regrade pullout 10'x70'	40.1880618	-123.8181238



Table 4. Pullouts that need vegetation to be removed and to be regraded.

Point ID	Comments	Latitude	Longitude
23	Create before slope 20'x80'	40.2140473	-123.8176884
64	Regrade to remove veg 10'x60'	40.2095454	-123.8127510
77	Cut stump and regrade 10'x40'	40.2054030	-123.8076206
91	Regrade veg pullout 15'x60'	40.1969009	-123.8073170
94	Pullout clear veg 15'x70'	40.1946003	-123.8060381
104	Pullout regrade remove veg. 10'x60'	40.1941079	-123.8068787
105	Pullout remove veg.	40.1936762	-123.8073785
110	Pullout clear veg. 10'x60' regrade	40.1922926	-123.8087375
113	Pullout clear veg.	40.1906593	-123.8100186
118	Pullout clear veg.	40.1903616	-123.8119189
119	Pullout clear regrade veg. 15'x60'	40.1903318	-123.8131964
123	Regrade clear veg. 10'x50'	40.1891371	-123.8150423
136	Regrade clear veg. 10'x50'	40.1880305	-123.8189784
141	Regrade clear veg. 20'x60'	40.1873059	-123.8193814
145	Regrade clear veg. 15'x45'	40.1864472	-123.8199470
150	Regrade clear veg. 15'x80'	40.1856533	-123.8208244
162	Clear veg regrade. 10'x45'	40.1885232	-123.8174905

Table 5. Good onstream culverts.

Point ID	Comments	Latitude	Longitude
3	GOOD 24" CPP	40.2161973	-123.8185602
5	GOOD 18" CPP	40.2157010	-123.8172287
17	GOOD 18" CMP	40.2145905	-123.8189055
121	GOOD 30" CPP	40.1895457	-123.8145499
124	GOOD 18" smooth PP	40.1890521	-123.8151034
305	GOOD 24" CPP	40.1911119	-123.8097620
306	GOOD 24" CPP	40.1927836	-123.8081983
307	GOOD 24" CPP	40.2135347	-123.8177945
308	GOOD 24" CPP	40.2158658	-123.8173728
309	GOOD 24" CPP	40.2162159	-123.8182696



Table 6 Onstream culverts that need the inlet/outlet to be cleared.

Point ID	Comments	Latitude	Longitude
115	Clear inlet 36" CPP	40.1900016	-123.8109524

Table 7. Stream Crossing that needs rocked ford or Culvert

Point ID	Comments	Latitude	Longitude
112	Install culvert or rock ford.	40.1909163	-123.8097520
160	Needs a rocked rolling dip or culvert (Class III Stream).	40.1844726	-123.8228150

Table 8. Good drainage relief culverts

Point ID	Comments	Latitude	Longitude
28	18" CMP.	40.2129567	-123.8176029
48	18" CPP.	40.2098437	-123.8167220
58	18" CPP.	40.2093185	-123.8144709
75	18" CPP.	40.2066284	-123.8076484
147	18" smooth PP.	40.1863384	-123.8199432
151	18" smooth PP.	40.1854769	-123.8209024
158	18" smooth PP.	40.1845382	-123.8221067
159	18" smooth pp.	40.1844291	-123.8226411

Table 9. Drainage relief culverts that need work.

Point ID	Comments	Latitude	Longitude
1	Needs cleaning at outlet 18" CPP	40.2169964	-123.8196498
15	18" CMP with exposed opening at road, needs a plate bolted or replacement.	40.21481	-123.818
42	Clear inlet 18" CPP	40.2102757	-123.8176974
82	Clear inlet 18" CMP	40.2016473	-123.8069977
109	Clear inlet 18" CMP	40.1923786	-123.8084436
132	Clear inlet 18" CPP	40.1880211	-123.8181688
148	Clear and rock inlet of 18" concrete culvert	40.1859977	-123.8203488



Table 10. Rolling dips/water-bars that need to be rocked.

Point ID	Comments	Latitude	Longitude
140	Rock needed on rolling dip	40.1875598	-123.8198918

Table 11. Gates that are normally locked

Point ID	Comments	Latitude	Longitude
100	Normally locked	40.2180401	-123.8205053
102	Normally locked	40.1945658	-123.8061614
170	Normally locked	40.2150604	-123.8160170
201	Normally locked	40.1902801	-123.825404
202	Normally locked	40.1847502	-123.822914





ATTACHMENT 4:

Map Point Figures and Descriptions



Map Point(s) Descriptions

Figures for associated Road Points can be viewed below with the associated descriptions and their locations can be referenced on **Attachment 2** (Road Maps), **Attachment 3** (Property Road Segment Map) and **Attachment 4** (Road Points Tables).

Road Point(s) Descriptions for off property access road Gibney Drive: This road segment is the access road from Highway 101 to access road way French road. This is a county-maintained road and is the road evaluation starting point.



Figure 1. Photograph showing the start of Gibney Drive from the highway 101 on-ramp.



Figure 2. Photograph showing the end of Gibney Drive and the start of French road.

Road Point(s) Descriptions for off property access Roadway French Road: This road segment is the access road from Gibney Drive to access road way Road 3.



Figure 3. Photograph showing Road Point 100, the gate at the intersection of Gibney Drive and French road. French Road will need an encroachment permit to pave the first 30 feet of French Road from the intersection of Gibney Drive..



Figure 4. Road point 58 showing an 18-inch drainage relief culvert that is in good condition.



Figure 5. Photograph showing Road Point 24 which is a pullout that shall be maintained as a pullout.



Figure 6. Road point 15 shows an 18" drainage relief culvert with an exposed opening that needs to be repaired or replaced.





Figure 7. Photo of Road Point 14 which is a good pullout that will need to be maintained as a pullout.



Figure 8. Photograph showing Road Point 16 which is a pullout that need to be regraded.





Figure 9. Photograph showing Road Point 27 which is a pullout that need to be regraded.



Figure 10. Photograph showing Road Point 31 which is a pullout that need to be regraded.





Figure 11. Photograph showing Road Point 40 which is a pullout that need to be regraded.



Figure 12. Photograph showing Road Point 42 which is 18" drainage relief culvert with debris in the inlet that needs to be cleared.



Road Point(s) Descriptions for off property access roadway Road 3: This road segment is the access road from French Road to access road way Road 4.



Figure 13. Photograph showing Road Point 64 which is a pullout that needs to be regraded to make room for larger vehicles.



Figure 14. Photo of Road Point 67 showing a pullout that needs to be regraded and vegetation cleared.





Figure 15. Photo of Road Point 71 showing a pullout that needs to be regraded.



Figure 16. Photo of Road Point 74 showing a pullout that needs to be regraded and vegetation cleared.





Figure 17. Photo of Road Point 76 showing a pullout that needs to be regraded...



Figure 18. Photo of Road Point 77 showing a pullout that needs to have a stump cleared and regraded.





Figure 19. Photo of Road Point 79 showing a pullout that needs to be regraded and vegetation cleared.



Figure 20. Photo of Road Point 80 showing a pullout that needs to be regraded and vegetation cleared.





Figure 21. Photograph of Road Point 82 showing an a partially plugged inlet to an 18 inch drainage relief culvert. The fix is to clear the inlet with a shovel.

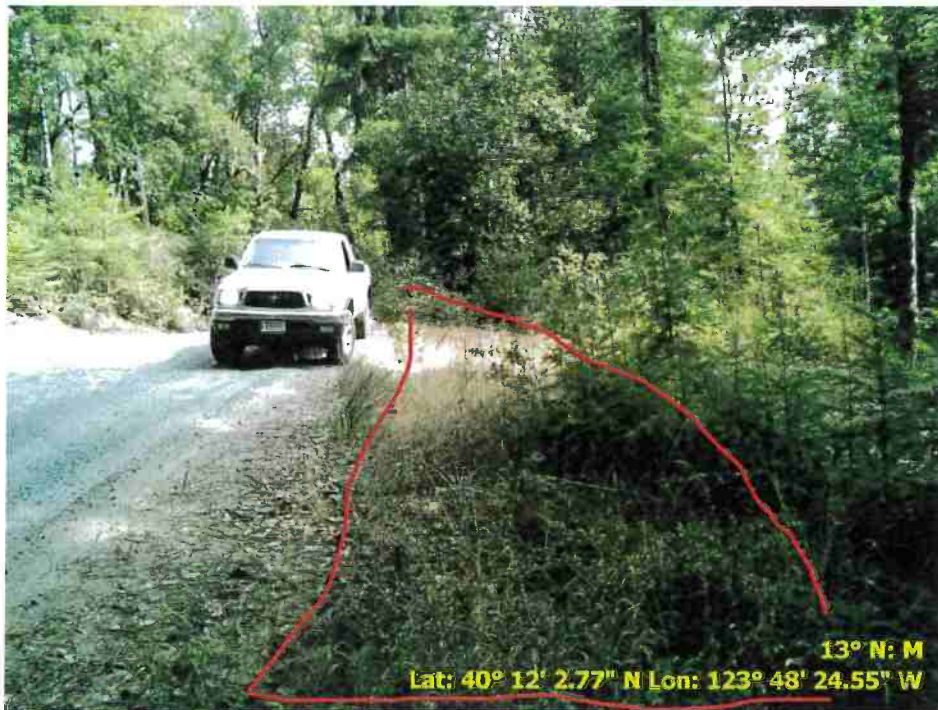


Figure 22. Photo of Road Point 84 showing a pullout that needs to be regraded and vegetation cleared.





Figure 23. Photo of Road Point 80 showing a pullout that needs to be regraded and vegetation cleared.



Figure 24. Photo of Road Point 89 showing a pullout that needs to be regraded and vegetation cleared.





Figure 25. Photo of Road Point 91 showing a pullout that needs vegetation cleared and to be regraded.



Figure 26. Photo of Road Point 94 showing a pullout that needs to be regraded and vegetation cleared.





Figure 27. Photo of Road Point 91 showing a pullout that needs vegetation cleared and to be regraded.



Figure 28. Photo showing a pullout that needs to be regraded and vegetation cleared.





Figure 29. Photo showing a pullout that needs vegetation cleared and regrading.

Road Point(s) Descriptions for off property access roadway Road 4: This road segment provides road access from off property access road way Road 3 to on property access roads.



Figure 30. Photo of Road Point 103 showing a pullout that needs to be regraded.



Figure 31. Photo of Road Point 104 showing a pullout that needs to be cleared of vegetation and regrading.



Figure 32. Photo of Road Point 190 showing the inlet of and 18" drainage relief culvert that needs to be cleared.



Figure 33.. Photo of Road Point 110 showing a pullout that needs to be cleared of vegetation and regrading.



Figure 34. Photo of Road Point 112 showing where concentrated road runoff crosses the road. The fix is to install a culvert or a rocked rolling dip.





Figure 35. Photo of Road Point 115 showing the inlet of a 36" onstream culvert that needs the inlet cleared.



Figure 36. Photo of Road Point 118 showing a pullout that needs to be cleared of vegetation and regrading.



Figure 37. Photo of Road Point 119 showing a pullout that needs to be cleared of vegetation and regrading.



Figure 38. Photo of Road Point 123 showing a pullout that needs to be cleared of vegetation and regrading.





Figure 39. Photo of Road Point 127 showing a pullout that needs to be cleared of vegetation and regrading.



Figure 40. Photo of Road Point 132 showing the inlet of a 18" onstream culvert that needs the inlet cleared.



Figure 41. Photo of Road Point 133 showing a pullout that needs to be cleared of vegetation and to be regraded.



Figure 42.. Photo of Road Point 136 showing a pullout that needs to be cleared of vegetation and regraded.



Figure 43. Photo of Road Point 301 showing water-bar/rolling dip that needs surface rock..



Figure 44. Photo of Road Point 141 showing a pullout that needs to be cleared of vegetation and regraded.



Figure 45. Photo of Road Point 145 showing a pullout that needs to be cleared of vegetation and regraded.



Figure 46. Photo of Road Point 148 showing the inlet of an 18" onstream culvert that needs the inlet cleared and the inlet needs rock slope protection above and around the inlet.





Figure 47. Photo of Road Point 150 showing a pullout that needs to be cleared of vegetation and regraded.



Figure 48. Photo of Road Point 159 showing a class three stream crossing that need a culvert or rock ford.





Figure 49. Photo of Road Point 162 showing a pullout that needs to be cleared of vegetation and regraded.



Figure 50. Road Point 202 Shows the gate at intersection of access Road 4 and the off property driveway that leads to Project 2. The start of the driveway has a slope that is approximately 18%.

