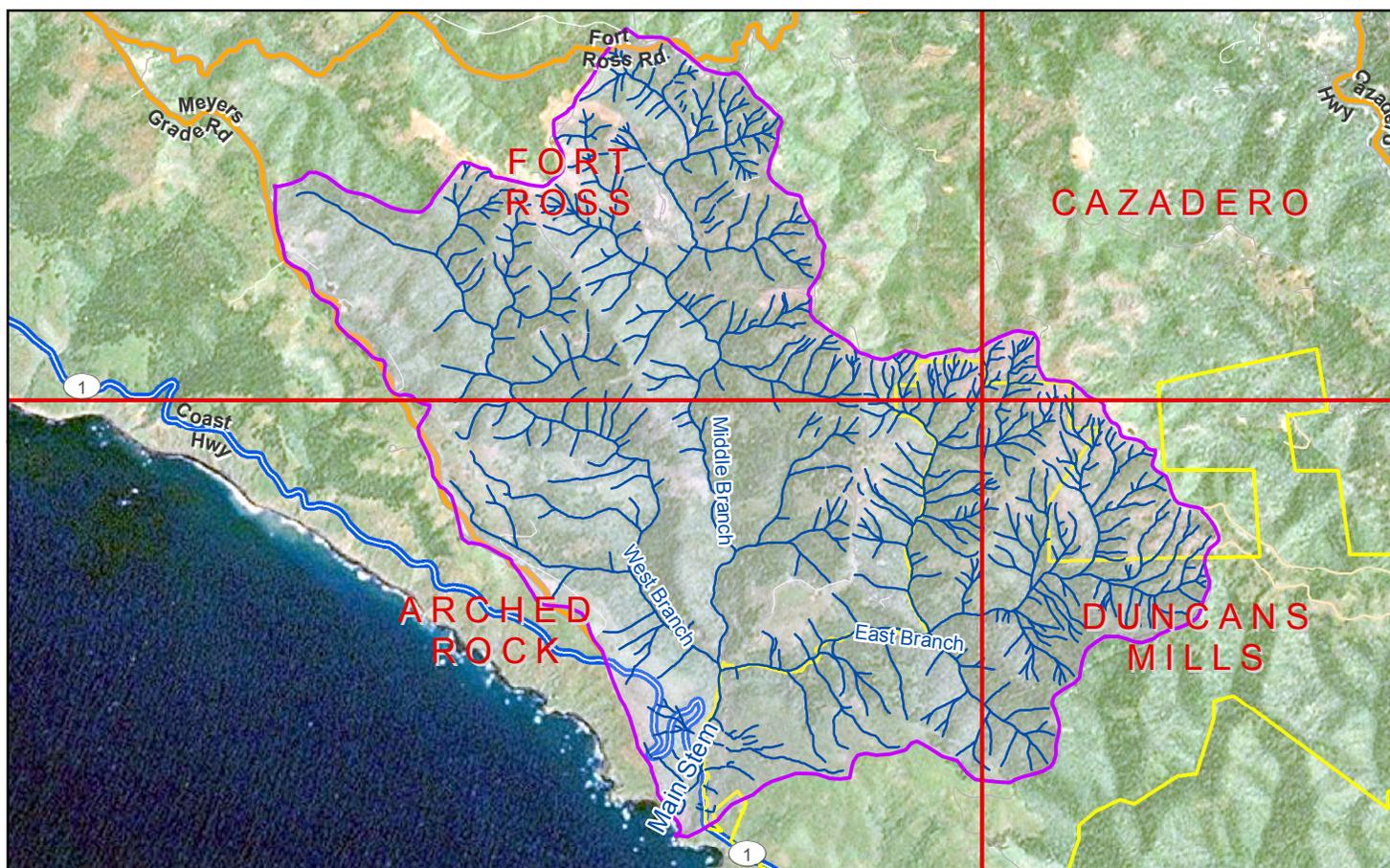
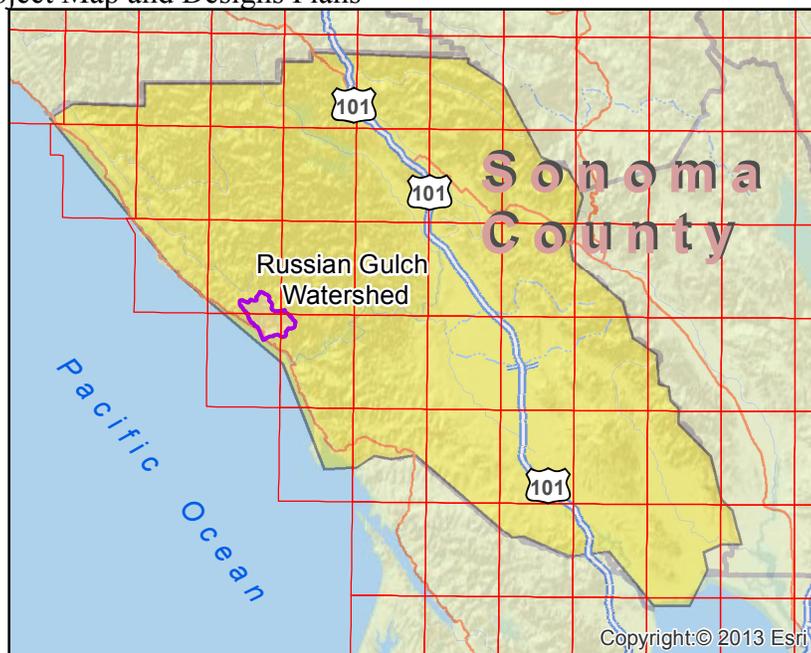


Exhibit 2: Project Map and Designs Plans



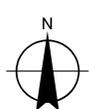
- Russian Gulch Watershed
- USGS Quadrangles
- U.S. Highway
- Jenner Headlands Preserve
- Russian Gulch Streams
- Major Road
- Local Roads

Source of Aerial: Esri, Digital Globe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Paper Size 8.5" x 11" (ANSI A)

0 0.225 0.45 0.9 1.35 1.8 Miles

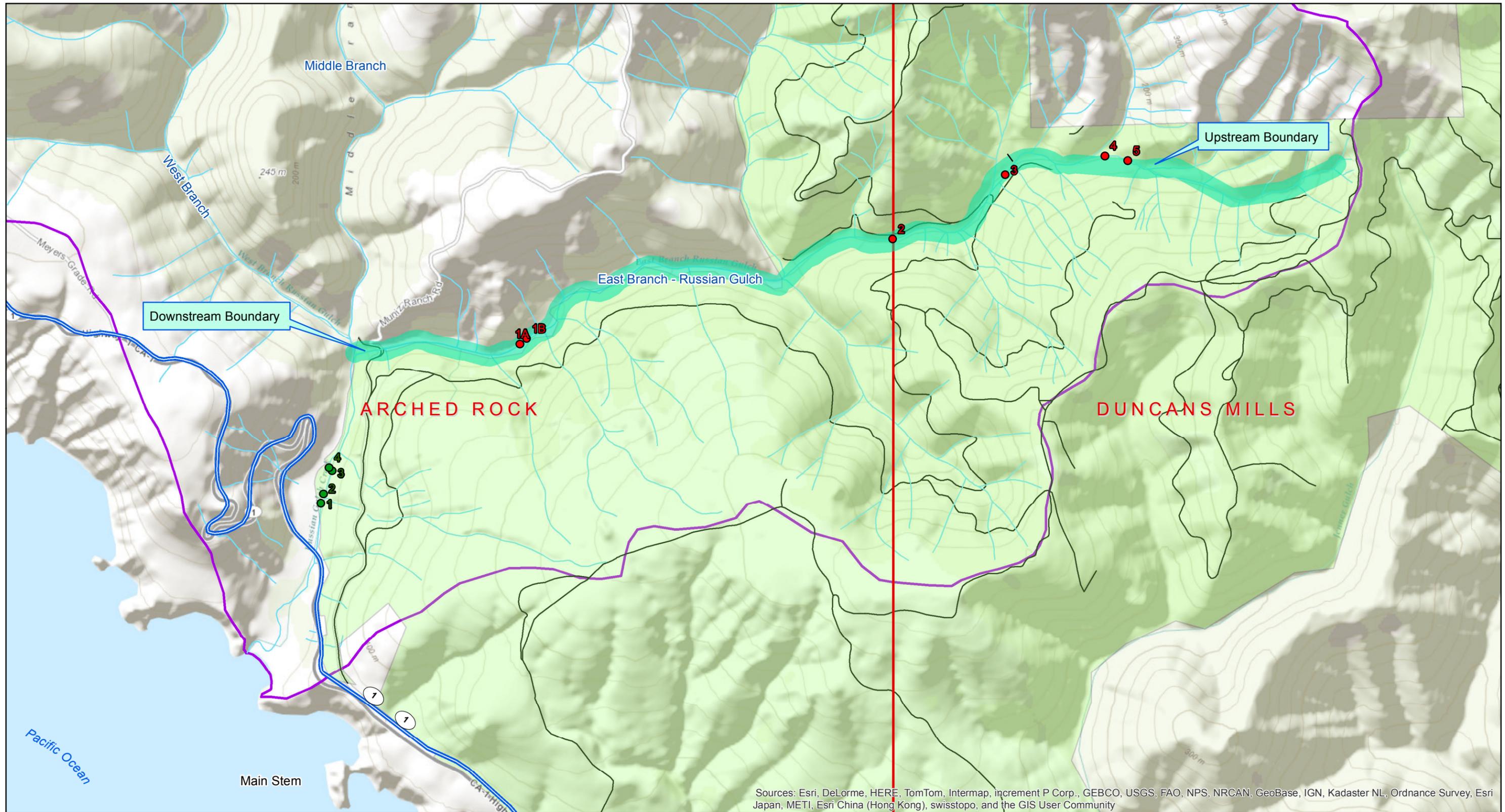
Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxiliary Sphere



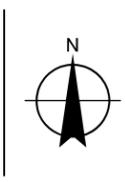
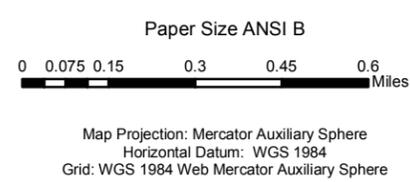
Client Name: The Wildlands Conservancy
& Sonoma Land Trust

Job Number 8410563
Revision A
Date 13 Mar 2014

Vicinity Map



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



- LEGEND**
- Large Woody Debris Jam
 - Habitat Enhancement Sites
 - ▭ East Branch Study Area
 - ▭ Jenner Headlands
 - ▭ RG_watershed
 - Highway 1
 - USGS QUADRANGLE
 - Road
 - ~ Watercourse



Client Name: The Wildlands Conservancy & Sonoma Land Trust

REACH MAP

Job Number	8410563
Revision	A
Date	14 Mar 2014



Memorandum

13 March 2014

To	Brook Edwards, Jenner Headlands Preserve Manager		
From	Travis James, P.E. Jeremy Svehla, P.E.	Tel	707-443-8326
Subject	Russian Gulch East Branch Intermediate Design	Job no.	8410563

Dear Brook,

The purpose of this memo is to present the intermediate design for the East Branch Russian Gulch habitat enhancements. This memo summarizes discussions from the December 10, 2013 agency meeting and presents the selected modification and reuse methods for each of the project sites identified in the previously developed *Russian Gulch Enhancement Plan*. Below is a discussion on the December meeting followed by a presentation of the intermediate design for the East Branch sites and finally a discussion of the next steps.

1 December Agency Meeting Summary

The purpose of the December agency meeting was to present the Russian Gulch Enhancement Plan to potential project stakeholders and solicit feedback. Below is a summary of the meeting's discussions. A list of attendees is included as an attachment.

The *Russian Gulch Enhancement Plan* (Plan) was developed for The Wildlands Conservancy and summarized potential habitat enhancements along two reaches in the Russian Gulch watershed, the East Branch and the Main Stem. The habitat enhancement design within the Main Stem may be referenced within this memo however the work there remains conceptual and the focus of this memo is to present the intermediate design for the enhancements to be carried out on the East Branch. Please refer to the Plan for the location, detailed descriptions, and photographs of the particular project sites and approaches referred to within this memo.

There are five large wood debris (LWD) jam locations on the East Branch that were assessed within the Plan. The discussion at the December meeting was positive with respect to modifying the LWD Jams to improve fish passage conditions for salmonids and improve stream function. Below is a summary of some of the items discussed during the meeting, which has provided the bases for the intermediate design. The intermediate designs are presented in the next section.

For each site, several modification approaches were presented in the Plan, but the Plan did not select a preferred alternative for any of the sites. Modification techniques included removal with hand crews, explosives, large equipment, and aerial. Explosives generated significant discussion but the various agencies felt that it might jeopardize the project's grant funding ability and have a more difficult generating support amongst different regulatory agencies and that other means should be attempted before utilizing this

method. Large equipment, although possible at some of the locations, would require additional costs to restore access routes after the work was complete. Although not dismissed by the group, we do not feel that large equipment is within the project's best interest. Although aerial methods (helicopter, skyline) don't have the same impacts as large equipment from an environmental point of view, the costs appear prohibitive. Therefore, modification by hand crews appears to be the preferred modification method for all of the sites. Further, the group discussed utilizing the California Conservation Corp (CCC) to complete the work. This type of work is well within their capabilities and they can be very cost effective.

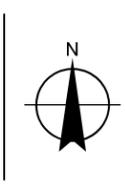
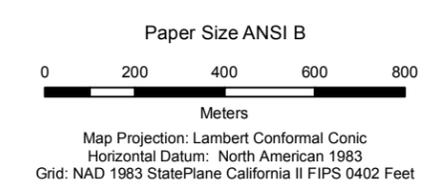
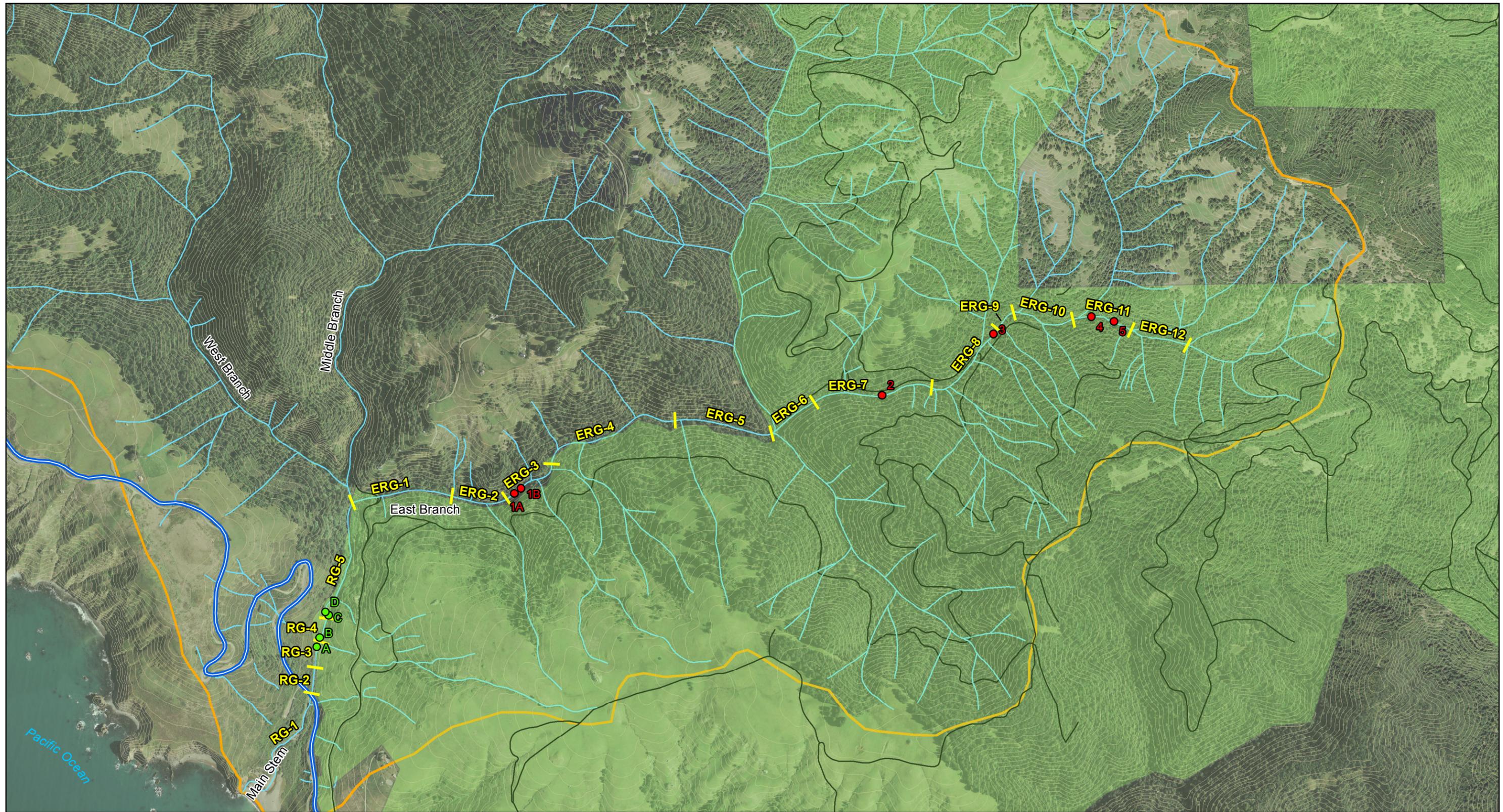
Reuse of material from the LWD Jam sites was presented within the Plan and discussed at the meeting. The group's general consensus was to remove wood from the channel and place it upslope sufficiently above high flow elevations. This wood would be available for future projects as discussed below.

We propose the following approach to accommodate the initial needs of the project (to remove the debris) and the potential future need of the wood within the channel. As discussed above, removal of the wood will be completed by hand crews. Even with some winching ability, the size of the wood removed from the channel may be smaller than is appropriate to build stable in-stream structures. The Final Implementation Plan will discuss the minimum size of the wood should remain for any future in-channel structures, if possible. We feel that it should be up to the field crew's ability to safely remove the wood from the jams that will dictate the sizes, not the hope of using the wood in a future instream structure.

Once the wood has been removed from the channel, it will be important to monitor the channel's adjustment. Once adjusted the channel may benefit from a new habitat structure and the wood for the structure could be locally available, depending on size needs. It is also possible that the wood could be transported to another part of the watershed. It is recommended that the wood not be transported until after the channel has adjusted and it has been determined that the wood is more valuable elsewhere. These project sites are remote and it might not be feasible to transport the wood.

2 Intermediate Design Guidelines

Based on the above discussion, we have developed the following intermediate design for each of the LWD Jam sites. All work will be completed by hand crews, likely using methods presented in the Plan. The Final Implementation Plan will provide specific details on water management, fish relocation, pre- and post-monitoring, site access, and regulatory approved modification methods and reuse applications. The agencies did not feel developing traditional construction plans was necessary, and therefore, the proposed implementation plan will provide figures and written specifications sufficient for this work. The work required to modify the LWD Jams will need to be flexible to maintain site safety and work efficiencies. Below is the Reach Map from the Plan showing the locations of the project sites. Following the Reach Map are descriptions and figures of the intermediate design to be carried out at each site.



LEGEND	
● Large Woody Debris Jam	Watercourse
Reach Break	Watershed Boundary
10 m Contour	Highway 1
Road	Habitat Enhancement Sites
Jenner Headlands	



Client Name: The Wildlands Conservancy & Sonoma Land Trust	Job Number: 8410563
Project Name: Russian Gulch Enhancement Plan	Revision: A
	Date: 31 Jul 2013

REACH MAP

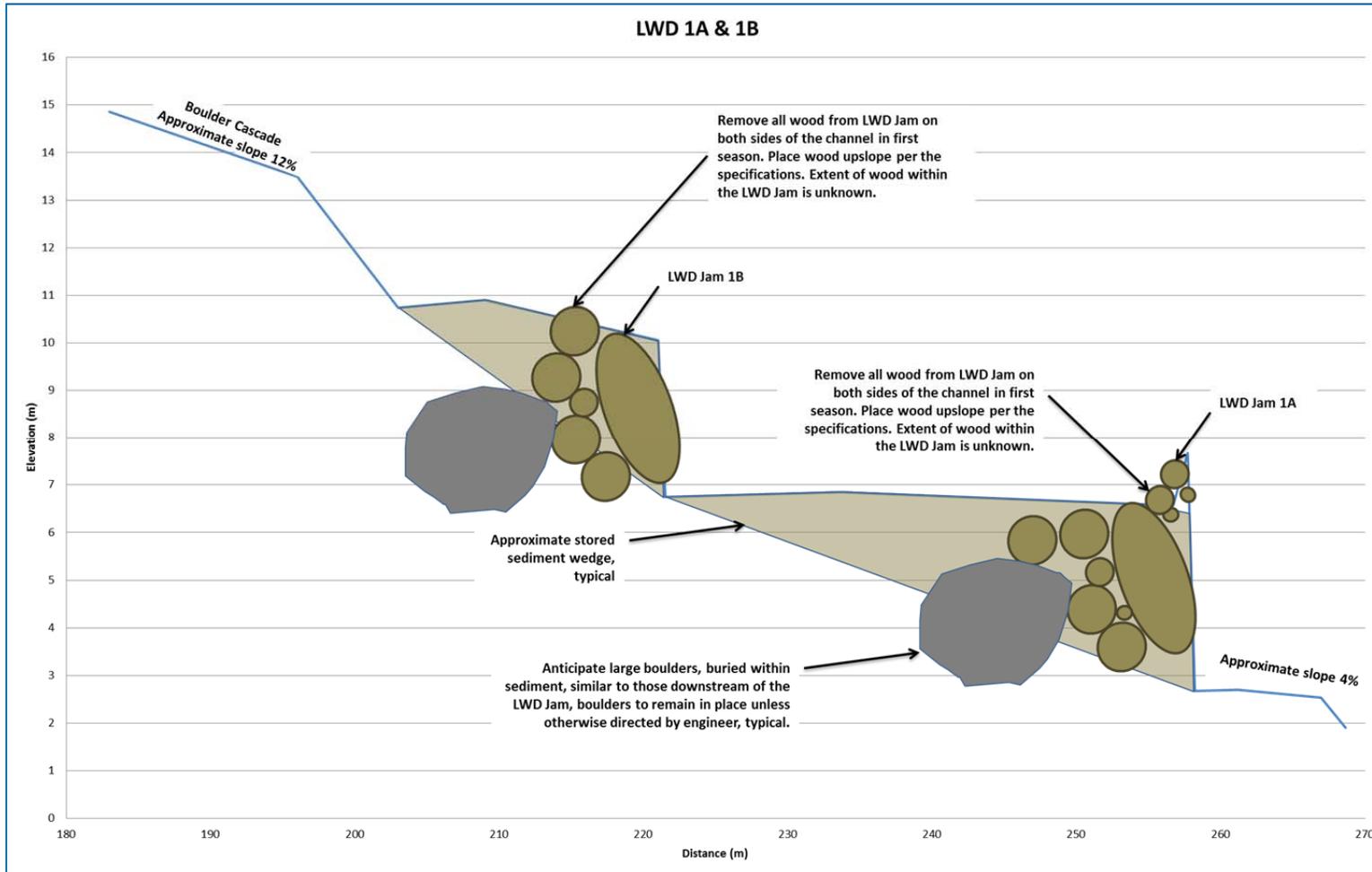
Figure 3

G:\1000186 The Wildlands Conservancy\8410563 RussianGulchInstreamHabitatPlan\08-GIS\Maps\Working\F3_GHD_Russian_Gulch_Reach_Map.mxd
 © 2013. Whilst every care has been taken to prepare this map, GHD (and DATA CUSTODIAN) make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.
 Data source: GHD, Reach Breaks and ID, Large Woody Debris Jam, 10m Contour, Road, Watercourse, and Watershed Boundary, 2013. Created by: emgutierrez

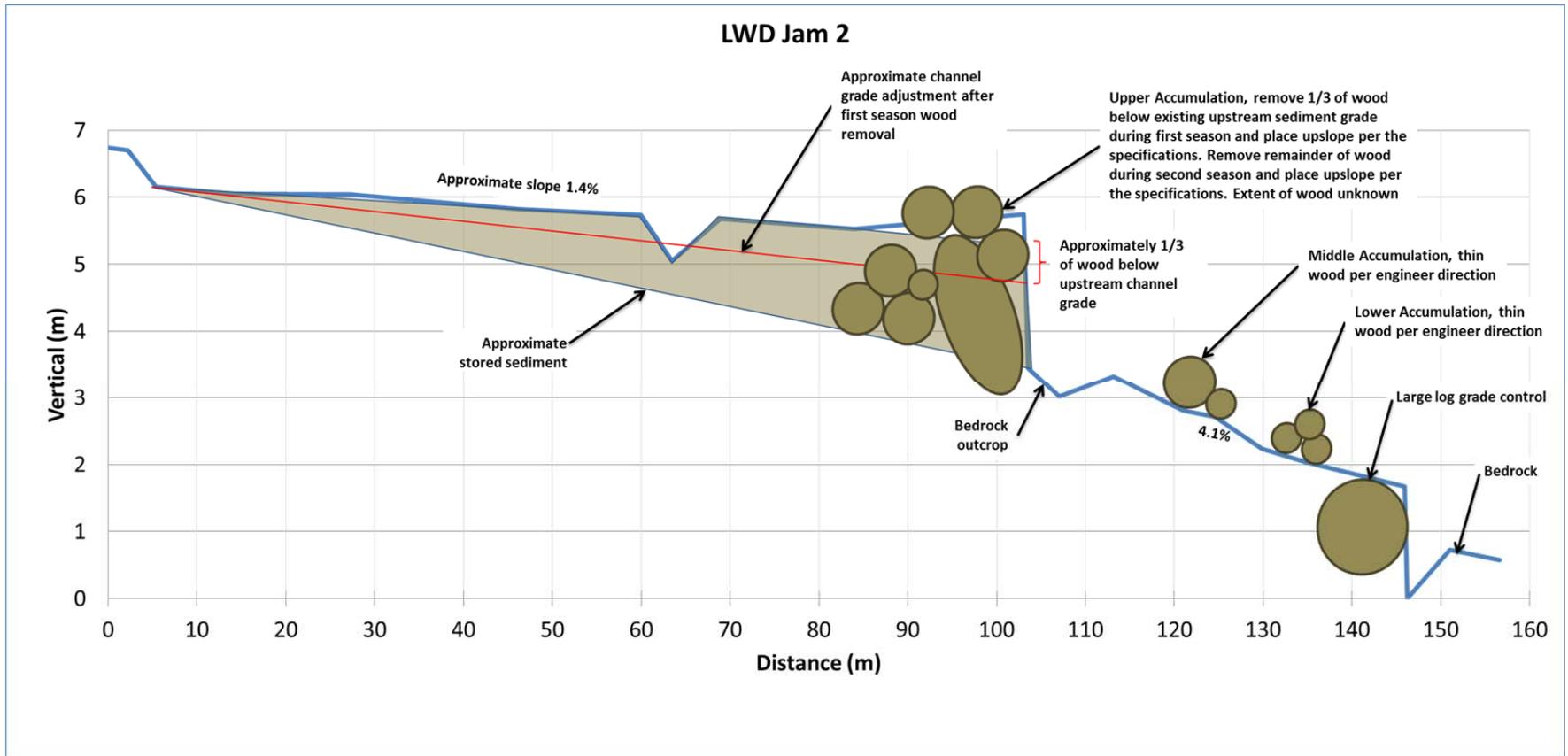


Memorandum

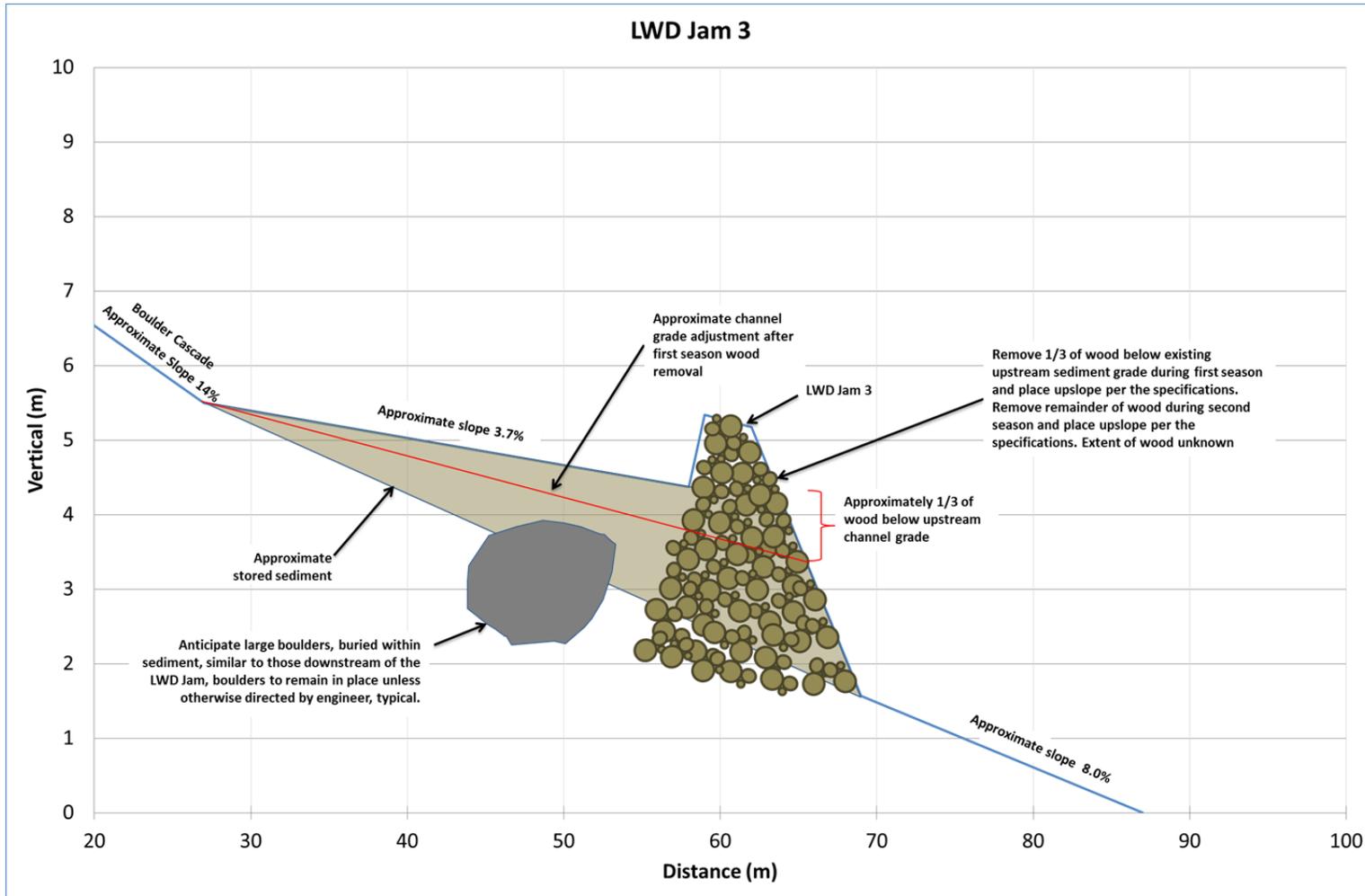
Modification of LWD jams 1A and 1B will be conducted in one season and all wood will be removed from both sides of the channel. Some of the wood is not visible and may have sediment and boulders burying wood. All wood shall be placed upslope as specified in the Final Implementation Plan.



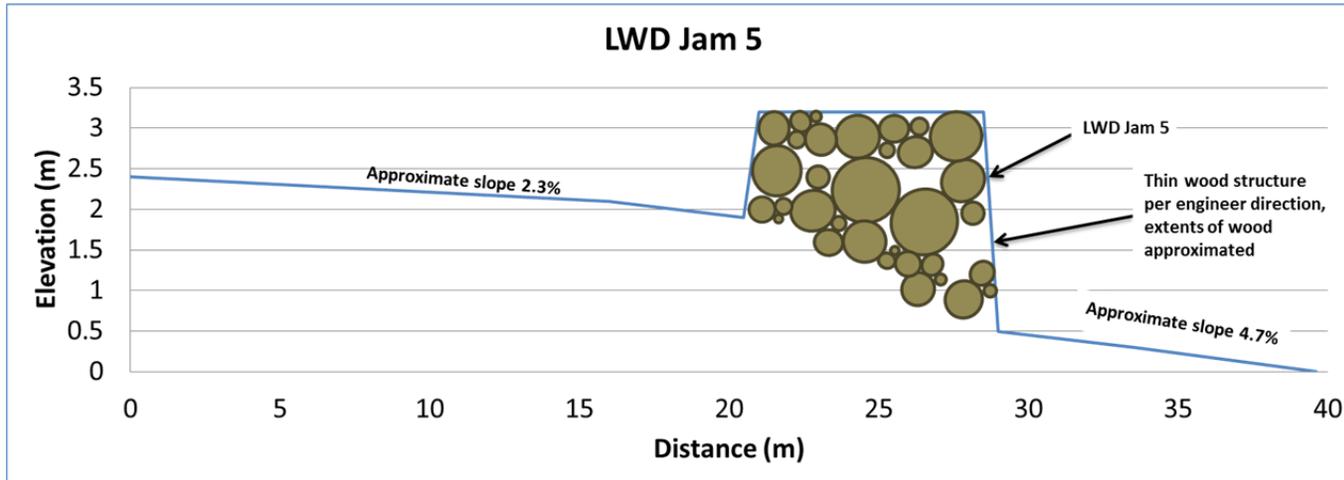
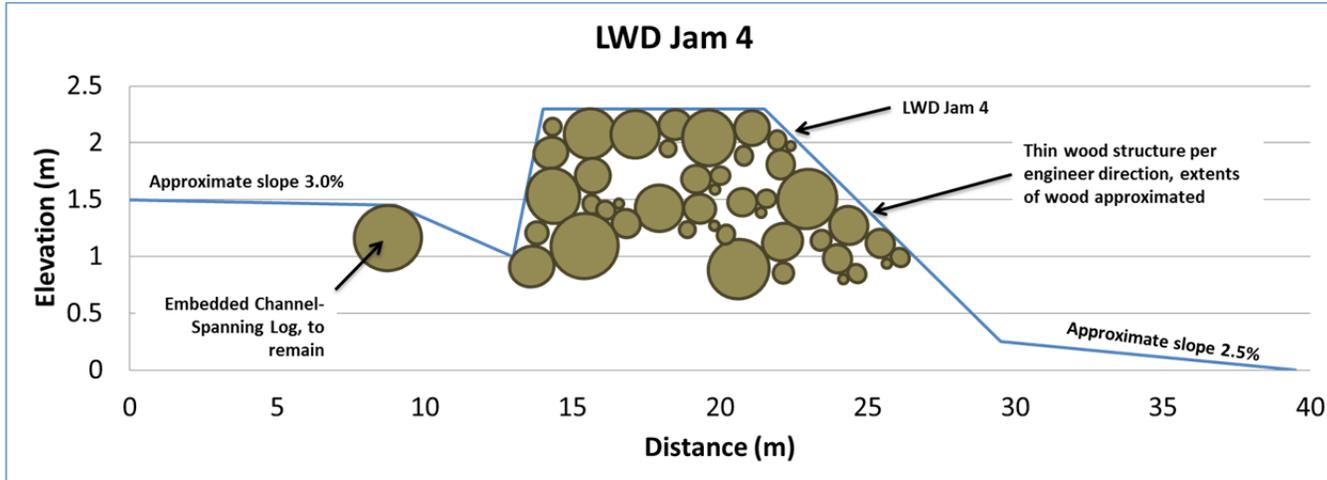
Modification of LWD Jam 2 will be conducted over two seasons. The first season, wood shall be removed channel wide so that the top of the remaining wood is 1 meter below the upstream channel grade. This will allow the upstream channel to adjust and limit the sediment released during winter storms. During the second season, the remaining wood will be removed. All wood to be placed upslope as specified in the Final Implementation Plan.



Modification of LWD Jam 3 will be conducted over two seasons. The first season, wood shall be removed channel wide so that the top of the remaining wood is 1 meter below the upstream channel grade. This will allow the upstream channel to adjust and limit the sediment released during winter storms. During the second season, the remaining wood will be removed. All wood to be placed upslope as specified in the Final Implementation Plan.



Modification of LWD Jams 4 and 5 will be conducted over one season. Wood shall be thinned channel wide at the direction of the engineer. All wood removed to be placed upslope as specified in the Final Implementation Plan.





Memorandum

3 Next Step

The next step is to begin developing the Final Implementation Plan. We will work with regulatory agencies to develop the final specifics and supporting figures. This guide will allow the CCCs the framework required to safely and efficiently complete the work while operating within a regulatory accepted manner. We look forward to supporting The Wildlands Conservancy in this effort.

Regards,

A handwritten signature in blue ink, appearing to read "P. Travis James".

P. Travis James, P.E.
Project Manager

Attachments:

- List of Meeting Participants



Exhibit 2: Project Map and Designs Plans
RUSSIAN GULCH ENHANCEMENT PLAN
AGENCY MEETING
SONOMA LAND TRUST OFFICE
DEC. 10, 2013

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dan.resnik@wdfw.ca.gov

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Dan Resnik	DFW	744-8704
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